

Memorandum

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To: 1. Erik Reyes, Chief
Central Valley Modeling Section
2. Francis Chung, Chief
Modeling Support Branch
3. Paul A. Marshall, Chief
Bay-Delta Office

From: Sina Darabzand
Central Valley Modeling Section

Department of Water Resources

Subject: State Water Project Delivery Capability Report 2015

The attached report, "State Water Project Delivery Capability Report 2015", is submitted for your review and approval to print multiple copies for distribution to public entities in compliance with the requirements spelled out in the Attachment B to the Monterey Plus Settlement Agreement of May 2003: *"Commencing in 2003, and every two years thereafter, the Department of Water Resources (DWR) shall prepare and deliver to all State Water Project (SWP) contractors, all city and county planning departments, and all regional and metropolitan planning departments within the project service area a report which accurately sets forth, under a range of hydrologic conditions, the then existing overall delivery capability of the project facilities and the allocation of that capacity to each contractor. The range of hydrologic conditions shall include the historic extended dry cycle and long-term average. The biennial report shall also disclose, for each of the ten years immediately preceding the report, the total amount of project water delivered and the amount of project water delivered to each contractor. The information presented in each report shall be presented in a manner readily understandable by the public."*

The attached report presents the existing overall delivery capability of the SWP system and the allocation of that capacity to each of the contractors under a range of hydrologic conditions. Appendices to this report are available in electronic form. Appendix A of this report briefly introduces and compares the assumptions for the 2015 Delivery Capability Report (DCR) Base scenario and the following alternatives: Early Long-Term (ELT), Existing Conveyance High Outflow (ECHO), Existing Conveyance Low Outflow (ECLO), and Bay-Delta Conservation Plan (BDCP) Alternative 4 H3 study (Alt 4). The other appendices to this report present model updates, model assumptions, and input and output data for the simulation runs under Existing Conditions scenario (Appendix B), the ELT scenario (Appendix C), the ECHO scenario derived for the BDCP planning process (Appendix D), the ECLO scenario which is a similar simulation to the ECHO scenario, without the Fall X2 and enhanced spring outflow requirements (Appendix E), and the BDCP Alternative 4 H3 study (Appendix F).

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The State Water Project Final Delivery Capability Report 2015

July 2015



State of California
Natural Resources Agency
Department of Water Resources

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Individuals contributing to the development of the report

Paul A. Marshall, Chief, Bay Delta Office
Francis Chung, Chief, Modeling Support Branch, Bay Delta Office
Erik Reyes, Chief, Central Valley Modeling, Bay Delta Office
Sina Darabzand, Senior Engineer, Central Valley Modeling, Bay Delta Office
Nazrul Islam, Senior Engineer, Central Valley Modeling, Bay Delta Office
Christopher Quan, Engineer, Central Valley Modeling, Bay-Delta Office
Ali Abrishamchi, Engineer, Central Valley Modeling, Bay-Delta Office
Raymond Hoang, Engineer, Central Valley Modeling, Bay-Delta Office
Rebecca Daniel, Office Technician, Modeling Support Branch, Bay-Delta Office

Laurence Kerckhoff, Attorney IV, Office of the Chief Counsel
Douglas Osugi, Supervising Engineer, FloodSAFE Environmental Stewardship
and Statewide Resources
Gardner Jones, Senior Environmental Scientist, Division of Environmental Services
Timothy Smith, Senior Environmental Scientist, Division of Environmental Services
Kristina Reese, Environmental Scientist, Division of Environmental Services
Gwen Huff, Senior Environmental Scientist, Division of Statewide Integrated Water
Management
Salma Kibrya, Research Program Specialist II, Division of Statewide Integrated Water
Management

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Summary

This report is intended to inform the public about key factors important to the operation of the State Water Project (SWP) and an estimate of its current delivery capability.

For many SWP water contractors, water provided by the SWP is a major component of the water supplies available to them. SWP contractors include cities, counties, urban water agencies, and agricultural irrigation districts. These local utilities and other public and private entities provide the water that Californians use at home and work every day and that helps to nourish the state's bountiful crops. Thus, the availability of water from the SWP is an important component to the water supply planning of its recipients and ultimately affects the amount of water that local residents and communities can use.

The availability of these water supplies may be highly variable. A wet water year may be followed by a dry or critically dry year. Knowing the probability that they will receive a certain amount of SWP water in a given year—whether it be a wet water year, a critical year, or somewhere in between—gives contractors a better sense of the degree to which they may need to implement increased conservation measures or plan for new additional, or back up sources of water supply to meet their needs.

The Delta is the key to the SWP's ability to deliver water to its agricultural and urban contractors in the North Bay, the South Bay, California Central Valley, and Southern California. All but five of the 29 SWP contractors receive water deliveries from the Delta (pumped by either the Harvey O. Banks or Barker Slough pumping plants).

Yet the Delta faces numerous challenges to its long-term sustainability. For example, climate change poses the threat of increased variability in floods and droughts, and sea level rise complicates efforts to manage salinity levels and preserve water quality in the Delta so that the water remains suitable for urban and agricultural uses. Among the other challenges are continued subsidence of Delta islands, many of which are already below sea level, and the related threat of a catastrophic levee failure as water pressure increases on fragile levees.

Protection of endangered and threatened fish species, such as the delta smelt, is also an important factor of concern for the Delta environment. Ongoing regulatory restrictions, such as those imposed by federal biological opinions on the effects of SWP and Central Valley Project (CVP) operations on these species also contribute to the challenges of determining the SWP's water delivery capability.

Two large-scale plans for the Delta that are being developed could affect SWP water delivery capability: the Delta Plan and the Bay Delta Conservation Plan (BDCP). When complete, the BDCP will provide the basis for issuing endangered species permits to operate the SWP and CVP. The BDCP seeks to improve the health of the ecological system as a whole.

The analyses in this report factor in all of the regulations governing SWP operations in the Delta and upstream, and assumptions about water uses in the upstream watersheds. Analyses were conducted that considered the amounts of water that SWP

contractors use and the amounts of water they choose to hold for use in a subsequent year.

Many of the same specific challenges to SWP operations described in the *State Water Project Delivery Reliability Report 2013* remain in 2015. Most notably, the effects on SWP pumping caused by issuance of the 2008 and 2009 federal biological opinions (BOs), which were reflected in the 2013 Report, continue to affect SWP delivery capability today. Hence, the differences between the 2013 and 2015 reports can be attributed primarily to updates in the assumptions and inputs to the simulation studies.

SWP exports have decreased since 2005, although the bulk of the change occurred by 2009 as the federal BOs went into effect, restricting operations. These effects are also reflected in the SWP delivery estimates. The most salient findings in this report are as follows:

- Under existing conditions, the average annual delivery of Table A water estimated for this 2015 Report is 2,550 taf/year, 3 taf less than the 2,553 taf/year estimated for the 2013 Report.
- The likelihood of existing-condition SWP Article 21 deliveries (supplemental deliveries to Table A water) being greater than 20 taf/year has decreased by 3% relative to the likelihood presented in the 2013 Report.

Section 1

Reasons to Assess SWP Water Delivery Capability

Two major factors underscore the importance of assessing the SWP's water delivery capability: the effects of population growth on California's balance of water supply and demand, and State legislation intended to help maintain a reliable water supply.

Population Growth, Land Use, and Water Supply

California's population has grown rapidly in recent years, with resulting changes in land use. This growth is expected to continue. From 1990 to 2005, California's population increased from about 29.8 million to about 36 million. Based on this trend, California's population has been projected to be more than 40.8 million by 2020. The "current trends" scenario depicted in the *California Water Plan 2013* for year-2050 conditions, based on the California Department of Finance's projections of 2010 U.S. Census data, assumes a population of nearly 51 million—a 75% increase in the 1990 population.

The amount of water available in California—or in different parts of the state—can vary greatly from year to year. Some areas may receive 2 inches of rain a year, while others are deluged with 100 inches or more. As land uses have changed, population centers have emerged in many locations without sufficient local water supplies. Thus, Californians have always been faced with the problem of how best to conserve, control, and move water from areas of abundant water to areas of water need and use.

Legislation on Ensuring a Reliable Water Supply

The laws described below impose specific requirements on both urban and agricultural water suppliers. These laws increase the importance of SWP water delivery capability estimates to water suppliers.

California Urban Water Management Planning Act

The Urban Water Management Planning Act was enacted in 1983 (California Water Code, Sections 10610–10656). As amended, this law requires urban water suppliers to adopt urban water management plans (UWMPs) every 5 years and submit those plans to DWR. DWR reviews submitted plans to report to the legislature on the status of submitted plans and for the purposes of grant eligibility requirements.

UWMPs must include an estimate of water supply and demand for the 20-year planning time frame for three water year types, normal, single dry year and multi dry years. SWP contractors rely on the SWP water delivery capability estimates to develop the water supply estimates.

The most recent round of UWMPs (2010) was required to be adopted by July 1, 2011 and submitted to DWR by August 1, 2011.

Urban Water Conservation Law requires that the State of California reduce urban per capita water use statewide by 10% by the end of 2015 and 20% by the end of 2020. Water suppliers calculated baseline water use and set 2015 and 2020 water use targets in their 2010 UWMPs. Water suppliers will report on water use target compliance in the 2015 and 2020 UWMPs. DWR is required to report to the Legislature on progress toward meeting the State's 20% by 2020 goals.

DWR publishes a guidebook to assist water suppliers prepare their urban water management plans. DWR is currently updating the guidebook for the 2015 round of plans. Guidance documents are available at <http://www.water.ca.gov/urbanwatermanagement>.

The municipalities and water districts that have adopted 2010 UWMPs and submitted them to DWR are listed at <http://www.water.ca.gov/urbanwatermanagement/2010uwmps/>.

Water Conservation Act

The Water Conservation Act of 2009 (Senate Bill X7.7, Steinberg), enacted in November 2009, includes requirements for urban and agricultural suppliers. Water suppliers report on compliance with these requirements in either the urban or agricultural water management plans. DWR reviews submitted plans for consistency with Water Conservation Act requirements.

In addition, as part of the Water Conservation Act, agricultural water suppliers with 25,000 acres or more of irrigated land were required to prepare and adopt agricultural water management plans and submit the plans to DWR by the end of 2012 and then once every five years beginning in 2015. The Act also required suppliers to measure volumetrically water deliveries to farms and base the price of water sales at least in part on the volume of water delivered. Water suppliers were required to report on water measurement and water pricing in their water management plans.

In November 2012, DWR released a guidebook for developing agricultural water management plans:

<http://www.water.ca.gov/wateruseefficiency/sb7/docs/AgWaterManagementPlanGuidebook-FINAL.pdf>.

Water agencies filing agricultural water management plans as of July 2013 are listed on a Web page maintained by DWR's Water Use and Efficiency Branch:

http://www.water.ca.gov/wateruseefficiency/sb7/docs/2012_AWMPs_Received_07-16-2013.pdf.

Section 2

Regulatory Restrictions on SWP Delta Exports

Multiple needs converge in the Delta: the need to protect a fragile ecosystem, to support Delta recreation and farming, and to provide water for agricultural and urban needs throughout much of California. Various regulatory requirements are placed on the SWP's Delta operations to protect special-status species such as delta smelt and spring- and winter-run Chinook salmon. As a result, as described below, restrictions on SWP operations imposed by State and federal agencies contribute substantially to the challenges of accurately determining the SWP's water delivery capability in any given year.

Biological Opinions on Effects of Coordinated SWP and CVP Operations

Several fish species listed under the federal Endangered Species Act (ESA) as threatened or endangered are found in the Delta. The continued viability of populations of these species in the Delta depends in part on Delta flow levels. For this reason, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) have issued several BOs since the 1990s on the effects of coordinated SWP/CVP operations on several listed species.

These BOs affect the SWP's water delivery capability for two reasons. Most notably, they include terms that restrict SWP exports from the Delta to specific amounts at certain times under certain conditions. In addition, the BOs' requirements are predicated on physical and biological conditions that occur daily while DWR's water supply models are based on monthly data.

The first BOs on the effects of SWP (and CVP) operations were issued in February 1993 (NMFS BO on effects of project operations on winter-run Chinook salmon) and March 1995 (USFWS BO on project effects on delta smelt and splittail). Among other things, the BOs contained requirements for Delta inflow, Delta outflow, and export pumping restrictions in order to protect listed species. These requirements imposed substantial constraints on Delta water supply operations. Many were incorporated into the 1995 *Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta* (1995 WQCP), as described under “Water Quality Objectives” later in this section.

The terms of the USFWS and NMFS BOs have become increasingly restrictive over the years. In 2004 the United States Bureau of Reclamation (Reclamation) sought a new BO from USFWS regarding the operation of the CVP and SWP (collectively, Projects). USFWS issued the opinion in 2005, finding that the proposed coordinated operations of the Projects were not likely to jeopardize the continued existence of the delta smelt or result in the destruction or adverse modification of its critical habitat. After judicial review, the 2005 BO was vacated and USFWS was ordered to prepare a new one. USFWS found that the proposed operations of the Project would result in jeopardy to

the delta smelt and in December 2008 issued a Jeopardy BO which included a Reasonable and Prudent Alternative (RPA) with more protective export restrictions and other actions intended to protect the delta smelt.

Similarly, in 2004 NMFS issued a BO on the effects of the coordinated operation of the Projects on salmonids, green sturgeon and Southern Resident killer whales and found that the proposed operations of the Projects were not likely to jeopardize the continued existence of the listed species or result in the destruction or adverse modification of their critical habitat. After judicial review, the 2004 BO was also vacated and NMFS was ordered to prepare a new one. In June 2009, NMFS issued a new Jeopardy BO covering effects on winter-run and spring-run Chinook salmon, steelhead, green sturgeon, and killer whales. Like the 2008 smelt BO, the salmon BO included an RPA with more protective export restrictions and other actions intended to protect listed species.

The USFWS BO includes requirements on operations in all but 2 months of the year. The BO calls for “adaptively managed” (adjusted as necessary based on the results of monitoring) flow restrictions in the Delta intended to protect delta smelt at various life stages. USFWS determines the required target flow, with the reductions accomplished primarily by reducing SWP and CVP exports. Because this flow restriction is determined based on fish location and decisions by USFWS staff, predicting the flow restriction and corresponding effects on export pumping with any great certainty poses a challenge. The USFWS BO also includes an additional salinity requirement in the Delta for September and October in wet and above-normal water years, calling for increased releases from SWP and CVP reservoirs to reduce salinity. Among other provisions included in the NMFS BO, limits on total Delta exports have been established for the months of April and May. These limits are mandated for all but extremely wet years.

The 2008 and 2009 BOs were issued shortly before and shortly after the Governor proclaimed a statewide water shortage state of emergency in February 2009, amid the threat of a third consecutive dry year. NMFS calculated that implementing its BO would reduce SWP and CVP Delta exports by a combined 5% to 7%, but DWR’s initial estimates showed an impact on exports closer to 10% in average years, combined with the effects of pumping restrictions imposed by BOs to protect delta smelt and other species. Both the 2008 USFWS and 2009 NMFS BOs were challenged in federal court on various grounds, including the failure by the services to use the best available science in the development of the BOs. U.S. District Judge Oliver Wanger found both BOs were not legally sufficient and remanded them to the agencies for further review and analysis. Both decisions were appealed to the Ninth Circuit, and in two separate decisions (March 2014 for the USFWS BO and December 2014 for the NMFS BO) the Ninth Circuit reversed in part and affirmed in part Judge Wanger’s rulings, finding the BOs complied with the ESA and upholding them in their entirety. As a result, the operational rules specified in the 2008 and 2009 BOs continue to be legally required and are the rules used in the analyses presented in Section 6 of this report.

The California Department of Fish and Wildlife (DFW) issued consistency determinations for both BOs under Section 2080.1 of the California Fish and Wildlife Code. The consistency determinations stated that the USFWS BO and the NMFS BO

would be consistent with the California Endangered Species Act (CESA). Thus, DFW allowed incidental take of species listed under both the federal ESA and CESA to occur during SWP and CVP operations without requiring DWR or the Reclamation to obtain a separate State-issued permit.

Delta Inflows

Delta inflows vary considerably from season to season, and from year to year. For example, in an above-normal year, nearly 85% of the total Delta inflow comes from the Sacramento River, more than 10% comes from the San Joaquin River, and the rest comes from the three eastside streams (the Mokelumne, Cosumnes, and Calaveras rivers).

The type of water year is also an important factor affecting the volume of Delta inflows. When hydrology is analyzed, water years are designated by DWR as “wet” (W), “above normal” (AN), “below normal” (BN), “dry” (D), or “critical” (C). All other factors (such as upstream level of development) being equal, much less water will flow into the Delta during a dry or critical water year (that is, during a drought) than during a wet or above-normal water year. Fluctuations in inflows are a substantial overall concern for the Delta, and a specific concern for the SWP; such fluctuations affect Delta water quality and fish habitat, which in turn trigger regulatory requirements that constrain SWP Delta pumping.

Delta inflows will also vary by time of year as the amount of precipitation varies by season. About 80% of annual precipitation occurs between November and March, and very little rain typically falls from June through September. Upstream reservoirs regulate this variability by reducing flood flows during the rainy season, and storing water to be released later in the year to meet water demands and flow and water quality requirements.

Water Quality Objectives

Because the Delta is an estuary, salinity is a particular concern. In the 1995 WQCP, the State Water Board set water quality objectives to protect beneficial uses of water in the Delta and Suisun Bay. The objectives must be met by the SWP (and federal CVP), as specified in the water right permits issued to DWR (and the U.S. Bureau of Reclamation). Those objectives—minimum Delta outflows, limits on SWP and CVP Delta exports, and maximum allowable salinity levels—are enforced through the provisions of the State Water Board's Water Right Decision 1641 (D-1641), issued in December 1999 and updated in March 2000.

DWR and Reclamation must monitor the effects of diversions and SWP and CVP operations to ensure compliance with existing water quality standards.

Among the objectives established in the 1995 WQCP and D-1641 are the “X2” objectives. X2 is defined as the distance in kilometers from Golden Gate

where salinity concentration in the Delta is 2 parts per thousand. The location of X2 is used as a surrogate measure of Delta ecosystem health.

D-1641 mandates the X2 objectives so that the State Water Board can regulate the location of the Delta estuary's salinity gradient during the 5-month period of February–June.

For the X2 objective to be achieved, the X2 position must remain downstream of Collinsville in the Delta for the entire 5-month period, and downstream of other specific locations in the Delta on a certain number of days each month from February through June. This means that Delta outflow must be at certain specified levels at certain times, which can limit the amount of water the SWP may pump at those times at its Harvey O. Banks Pumping Plant in the Delta.

Because of the relationship between seawater intrusion and interior Delta water quality, meeting the X2 objective also improves water quality at Delta drinking water intakes; however, meeting the X2 objectives can require a relatively large volume of water for outflow during dry months that follow months with large storms.

The 1995 WQCP and D-1641 also established an export/inflow (E/I) ratio. The E/I ratio is designed to provide protection for the fish and wildlife beneficial uses in the Bay Delta estuary. The E/I ratio limits the fraction of Delta inflows that are exported. When other restrictions are not controlling, Delta exports are limited to 35% of total Delta inflow from February through June and 65% of inflow from July through January.

Section 3

Ongoing Environmental and Policy Planning Efforts

It is hard to overstate the Delta's importance to California's economy and natural heritage. The Delta supplies a large share of the water used in the state. California would not be the same without that water — hundreds of billions of dollars of economic activity depend upon it. Southern California, with half of the state's population, gets almost a quarter of its average water supply from the Delta; Kern County, which produces nearly \$3 billion annually in grapes, almonds, pistachios, milk, citrus and carrots, depends on the Delta for about a fifth of its irrigation supply; the west side of the San Joaquin Valley also produces billions of dollars' worth of food and depends on the Delta for about three-quarters of its irrigation supply; and the San Francisco Bay Area, including the innovation hub of Silicon Valley, takes about half of its water supply from the Delta and its tributaries.

At the same time, the hundreds of miles of river channels that crisscross the Delta's farmed islands provide a migratory pathway for Chinook salmon, which support an important West Coast fishing industry. Other native fish species depend upon the complex mix of fresh and salt water in the Delta estuary. Multiple stressors have impaired the ecological functions of the Delta, and concerns have been growing over the ability to balance the many needs of both people and the ecosystem.

In order to respond to these concerns considerable effort by government agencies and California water community as a whole has been spent during the past several decades to study ways that the problems in the Delta can be addressed, and the more recent attention to the effects of climate change has helped the water community to realize the urgency of addressing these problems. The essential part of all these efforts has been to find a comprehensive solution that brings various, sometimes competing, interests together in a coordinated and concerted set of actions. The Delta Plan and the Bay Delta Conservation Plan (BDCP) are two large-scale plans that are in development. Both plans could affect SWP water delivery capability in different ways, and at different scales.

Delta Plan

After years of concern about the Delta amid rising water demand and habitat degradation, the Delta Stewardship Council was created in legislation to achieve State-mandated coequal goals for the Delta. As specified in Section 85054 of the California Water Code:

“Coequal goals” means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

The final Delta Plan was adopted by the Council on May 16, 2013. The Delta Plan contains a set of 14 regulatory policies that will be enforced by the Delta Stewardship Council's appellate authority and oversight. The Delta Plan also contains 73 recommendations, which are non-regulatory but call out actions essential to achieving the coequal goals. The State Office of Administrative Law (OAL) approved the 14 regulations to implement the Delta Plan, which became effective with legally-enforceable regulations on September 1, 2013.

The 14 regulatory policies approved by the OAL include:

- Requiring those who use water from the Delta to certify in their water management plans that they are implementing all feasible efforts to use water efficiently and are developing additional local and regional water supplies;
- Reserving six high-priority areas for habitat restoration;
- Protecting agricultural land by requiring developers to locate new residential, commercial, or industrial development in areas planned for urban use;
- Requiring state and local agencies to locate, when feasible, water management facilities, ecosystem projects, and flood management infrastructure in ways that would reduce or avoid conflicts with agriculture and other existing planned uses; and requiring those agencies to consider locating the facilities on public land before using private land;
- Prohibiting encroachment on floodways and floodplains;
- Requiring developers of new residential subdivisions to include a level of flood protection that anticipates sea levels rising due to climate change; and
- Setting priorities for State investment in Delta flood levees.

Among the 73 recommendations in the Delta Plan are:

- Updating statewide water-use efficiency goals, groundwater management plans for areas using Delta water, streamlining water transfer procedures and developing a statewide system for reporting how much water is used;
- Having the State Water Resources Control Board update water quality objectives for the Sacramento and San Joaquin Rivers, controlling or reducing other Delta stressors such as contaminants and invasive species, expanding floodplains and riparian habitats and locating habitat restoration to accommodate sea-level rise;
- Encouraging agritourism, wildlife friendly farming practices, and recreational opportunities in the Delta; and

- Creating a Delta Flood Risk Management District to provide adequate funding for flood control and emergency preparedness.

In 2014, the Delta Stewardship Council launched the Delta Levees Investment Strategy (DLIS) that will combine economics, engineering, and decision-making techniques to identify funding priorities and assemble a comprehensive investment strategy for the Delta levees.

This investment strategy will be developed in collaboration with state agencies, local reclamation districts, Delta landowners and businesses, and other important stakeholders. It will be based on the best available data, research, and lessons learned from other state and local programs and planning efforts.

Bay Delta Conservation Plan (BDCP)

The Bay Delta Conservation Plan (BDCP) is a comprehensive plan prepared by a group of local water agencies, environmental and conservation organizations, State and federal agencies, and other interest groups to address a wide array of challenges that the water community in California has been facing for decades in the Sacramento-San Joaquin Delta.

The BDCP is being developed in compliance with the Federal Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (NCCPA). When complete, the BDCP will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. In the most basic sense, the BDCP provides a regulatory vehicle for project proponents to agree to implement a suite of habitat restoration measures, other stressor reduction activities, and water operations criteria in return for regulatory agency approval of the necessary long-term permits for the various projects and water operations (covered activities) to proceed. The heart of the BDCP is a long-term conservation strategy that sets forth actions needed for a healthy Delta.

The BDCP approach to addressing the Delta's challenges reflects a significant departure from the species-by-species approach utilized in previous efforts to manage Delta-specific species and habitats. Instead, the BDCP seeks to improve the health of the ecological system as a whole. Each conservation measure plays a part in an interconnected web of conservation activities designed to improve the health of natural communities and, in so doing, improve the overall health of the Delta ecosystem.

The BDCP attempts to balance contributions to the conservation of species in a way that is feasible given the variety of important uses in the Delta including flood protection, agriculture, and recreation, to name a few. Implementation of the Plan will occur over a 50-year time frame by a number of agencies and organizations with specific roles and responsibilities as prescribed by the Plan. A major part of implementation will be monitoring conservation measures to evaluate effectiveness, and revising actions through the adaptive management decision process.

The Plan, which has been in development since 2006, is undergoing intensive environmental review in the form of a state Environmental Impact Report and federal Environmental Impact Statement (EIR/S) to evaluate the impact of the Plan on all aspects of the environment, including the human environment, and identify alternatives and potential mitigation actions.

The draft BDCP and its associated EIR/S were released for public review in late 2013. Public comments were received until mid-2014. Partially-recirculated public draft documents are scheduled to be released in mid-2015. The reports are targeted to be final in 2016, after which a decision to proceed with the program would be made.

Section 4

Delta Levee Failure and the Delta Risk Management Strategy

The fragile Delta faces a multitude of risks that could affect millions of Californians. Foremost among those risks, as they could affect the SWP's water delivery capability, are the potential for levee failure and the ensuing flooding and water quality issues.

The Delta Risk Management Strategy (DRMS) was initiated in response to Assembly Bill 1200 (2005), which directed DWR to use 50-, 100-, and 200-year projections to evaluate the potential impacts on Delta water supplies associated with continued land subsidence, earthquakes, floods, and climate change. The discussions below describe DRMS Phase 1, which evaluated the risks, and DRMS Phase 2, which is proposing various solutions. Also discussed are other efforts currently being undertaken by DWR and other agencies to reduce risks to the Delta, enhance emergency response capabilities, and reduce the risk of interruption of Delta water exports by the SWP and CVP.

Effects of Emergencies on Water Supplies: Delta Risk Management Strategy (DRMS), Phase 1

Phase 1 of the DRMS, completed in 2008, assessed the performance of Delta and Suisun Marsh levees under various stressors and hazards and evaluated the consequences of levee failures to California as a whole.

The Delta is protected by levees built about 150 years ago. The levees are vulnerable to failure because most original levees were simply built with soils dredged from nearby channels, and were never engineered. Most islands in the Delta have flooded at least once over the past 100 years. For example, on June 3, 2004, a huge dry-weather levee failure occurred without warning on Upper Jones Tract in the south Delta, inundating 12,000 acres of farmland with about 160,000 acre-feet of water. Because many Delta islands are below sea level, deep and prolonged flooding could occur during a levee failure event, which could disrupt the quality and use of Delta water.

Levee failure can result from the combination of high river inflows, high tide, and high winds; however, levees can also fail in fair weather—even in the absence of a flood or seismic event—in a so-called “sunny day event.” Damage caused by rodents, piping (in which a pipe-like opening develops below the base of the levee), or foundation movement could cause sunny-day levee breaches.

A breach of one or more levees and island flooding may affect Delta water quality and SWP operations. Depending on the hydrology and the size and locations of the breaches and flooded islands, a large amount of salt water may be pulled into the interior Delta from Suisun and San Pablo bays. When islands are flooded, DWR may

need to drastically decrease or even cease SWP Delta exports to evaluate the distribution of salinity in the Delta and avoid drawing saltier water toward the pumps.

An earthquake could also put Delta levees, and thus SWP water supplies, at risk. In 2008, the 2007 Working Group on California Earthquake Probabilities estimated a probability of 63% that a magnitude 6.7 or greater earthquake would strike the San Francisco Bay Area in the next 30 years. An earthquake could severely damage Delta levees, causing islands to flood with salty water. The locations most likely to be affected by an earthquake are the west and southwest portions of the Delta because these areas are closer to potential earthquake sources. Flooding of the west and southwest Delta is also more likely to interfere with conveyance of freshwater to export pumps.

Modeling of the effects of earthquakes on Delta islands was conducted by DWR for the DRMS Phase 1 report. Described in the *California Water Plan Update 2009*, the assessment found a 40% probability that a major earthquake occurring between 2030 and 2050 would cause 27 or more islands to flood at the same time. If 20 islands were flooded as a result of a major earthquake, the export of freshwater from the Delta could be interrupted by about a year and a half. Water supply losses of up to 8 million acre-feet would be incurred by SWP (and CVP) contractors and local water districts.

Managing and Reducing Risks: Delta Risk Management Strategy (DRMS), Phase 2

The Phase 2 report for the DRMS, issued in June 2011, evaluates alternatives to reduce the risk to the Delta and the state from adverse consequences of levee failure. “Building blocks” (individual improvements or projects, such as improving levees or raising highways) and trial scenarios (various combinations of building blocks) were developed for the DRMS Phase 2 report. The building blocks fall into three main categories:

- Conveyance improvements/
flood risk reduction and life safety,
- Infrastructure risk reduction, and
- Environmental risk mitigation.

The first of these categories is most relevant to the SWP in terms of reducing the risk of disruption of SWP Delta exports, but the environmental risk mitigation category includes a building block calling for reduction of water exports from the Delta.

Four trial scenarios were developed to represent a range of possible risk reduction strategies:

- Trial Scenario 1—Improved Levees: Improve the reliability of Delta levees against flood-induced failures by providing up to 100-year flood protection.

- Trial Scenario 2—Armored Pathway (Through-Delta Conveyance): Improve the reliability of water conveyance by creating a route through the Delta that has high reliability and the ability to minimize saltwater intrusion into the south Delta.
- Trial Scenario 3—Isolated Conveyance Facility: Provide high reliability for conveyance of export water by building an isolated conveyance facility on the east side of the Delta.
- Trial Scenario 4—Dual Conveyance: Improve reliability and flexibility for conveyance of export water by constructing an isolated conveyance facility and a through-Delta conveyance. (This scenario would be much like a combination of Trial Scenarios 2 and 3.)

The findings of the DRMS Phase 2 report on these scenarios, as they apply to seismic risk and potential for disruption of SWP Delta exports, are as follows:

- Trial Scenario 1 (Improved Levees) would not reduce the risk of potential water export interruptions, nor would it change the seismic risk of most levees.
- Trial Scenario 2 (Armored Pathway [Through-Delta Conveyance]) would have the joint benefit of reducing the likelihood of levee failures from flood events and earthquakes and of significantly reducing the likelihood of export disruptions.
- The effects of Trial Scenario 3 (Isolated Conveyance) would be similar to those for the Armored Pathway scenario, but Trial Scenario 3 would not reduce the seismic risk of levee failure on islands that are not part of the isolated conveyance facility.
- Trial Scenario 4 (Dual Conveyance) would avoid the vulnerability of water exports associated with Delta levee vulnerability and would offer flexibility in water exports from the Delta and/or the isolated conveyance facility. However, seismic risk would not be reduced on islands not part of the export conveyance system or infrastructure pathway.

As noted in the discussion of the “enhanced emergency preparedness/response” building block in the DRMS Phase 2 report, analyses on resuming water exports after a levee failure were conducted by the Metropolitan Water District of Southern California, an SWP contractor. The studies found that a promising way to resume water exports would be to place structural barriers at selected channel locations in the Delta and complete strategic levee repairs, thus isolating an emergency freshwater conveyance “pathway” through channels that may be surrounded by islands flooded with saline water.

The DRMS study was the first comprehensive risk-based assessment of Delta levee failure and potential consequences to the State. Since the completion of the DRMS report several projects funded under the Delta Knowledge Improvement Program (DKIP) have been completed to fill the data gaps identified in DRMS. A goal of the DKIP is to complete bathymetry surveys of the entire Delta. Approximately 20% of the Delta has been surveyed thus far. Major on-going activities being funded by DKIP

include an economic study to assist the Delta Stewardship Council develop a comprehensive investment strategy for the Delta levees, a feasibility study to assist the Delta Protection Commission make recommendations on how to implement a Delta Flood Risk Management Assessment District, an investigation to determine how Delta levees on peat soils respond under seismic loading and development of potential designs of setback levees in the Delta to meet stability requirements while also incorporating desired habitat features.

Section 5

State Water Project Historical Delivery Capability (2005-2014)

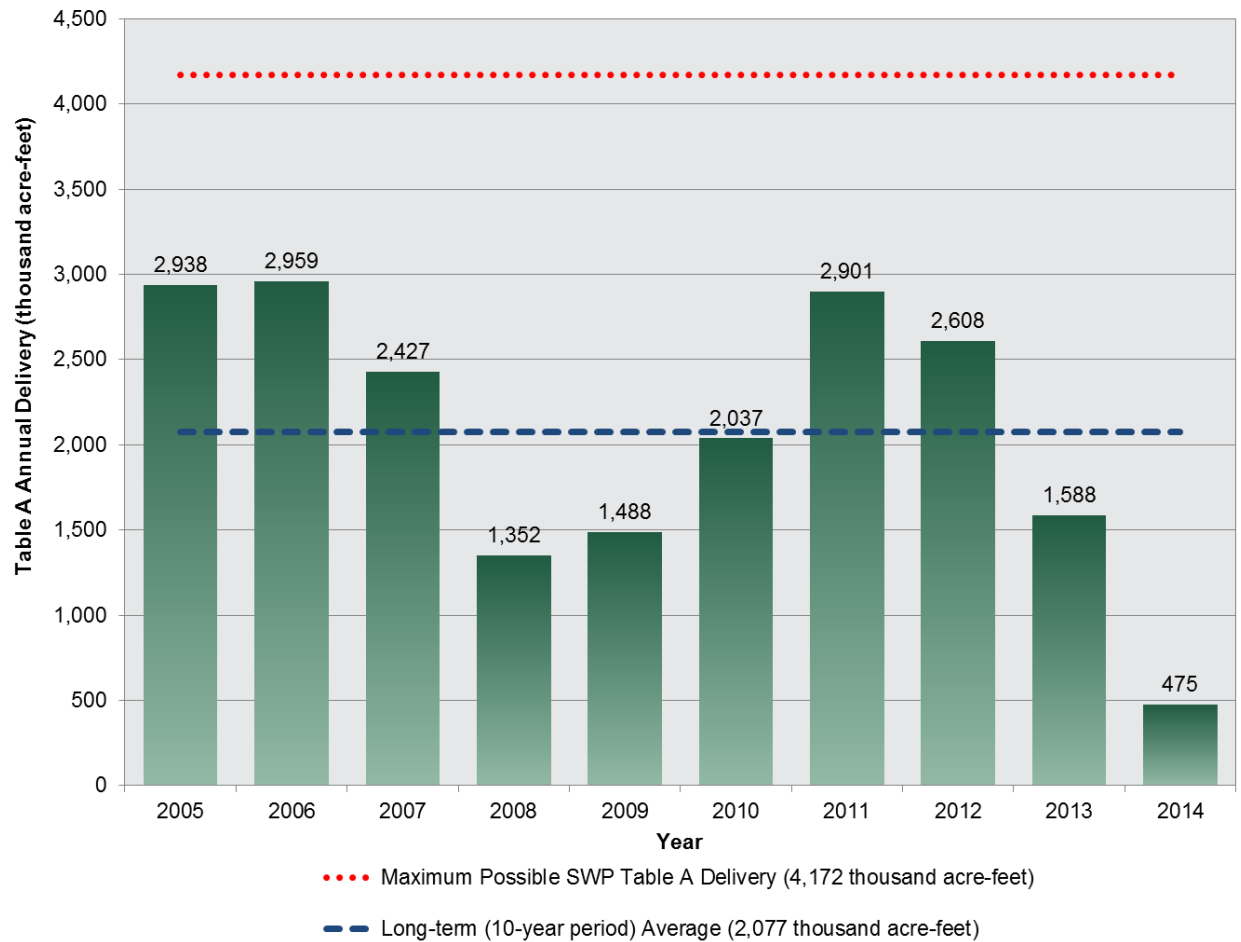
Section 7 of this report includes tables listing annual historical deliveries by various water classifications for each SWP contractor for 2005–2014.

Table 5-1 lists the maximum annual SWP Table A water delivery amounts for SWP Contractors. Figure 5-1 shows that deliveries of SWP Table A water for 2005–2014 range from an annual minimum of 475 taf to a maximum of 2,959 taf, with an average of 2,077 taf. Historical deliveries of SWP Table A water over this 10-year period are less than the maximum of 4,172 taf/year.

Total historical SWP deliveries, including Table A, Article 21, turnback pool, and carryover water, range from 3,707 to 477 taf/ year, with an average of 2,312 taf/year for the period of 2005–2014 (Figure 5-2).

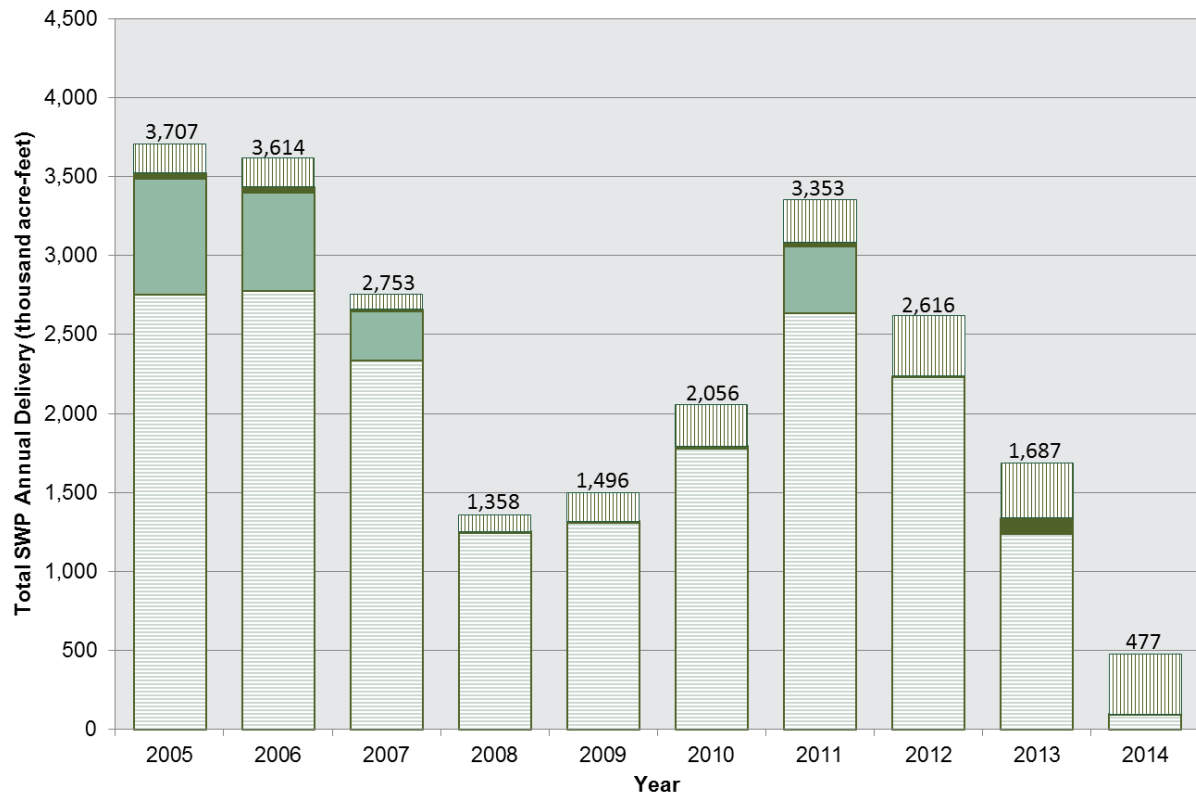
Table 5-1. Maximum Annual SWP Table A Water Delivery Amounts for SWP Contractors

Contractor	Maximum Table A Delivery Amounts (acre-feet)
Feather River Area Contractors	
Butte County	27,500
Yuba City	9,600
Plumas County Flood Control and Water Conservation District	2,700
Subtotal	39,800
North Bay Area Contractors	
Napa County Flood Control and Water Conservation District	29,025
Solano County Water Agency	47,506
Subtotal	76,531
South Bay Area Contractors	
Alameda County Flood Control and Water Conservation District, Zone 7	80,619
Alameda County Water District	42,000
Santa Clara Valley Water District	100,000
Subtotal	222,619
San Joaquin Valley Area Contractors	
Dudley Ridge Water District	50,343
Empire West Side Irrigation District	2,000
Kern County Water Agency	982,730
Kings County	9,305
Oak Flat Water District	5,700
Tulare Lake Basin Water Storage District	88,922
Subtotal	1,139,000
Central Coastal Area Contractors	
San Luis Obispo County Flood Control and Water Conservation District	25,000
Santa Barbara County Flood Control and Water Conservation District	45,486
Subtotal	70,486
Southern California Area Contractors	
Antelope Valley–East Kern Water Agency	141,400
Castaic Lake Water Agency	95,200
Coachella Valley Water District	138,350
Crestline–Lake Arrowhead Water Agency	5,800
Desert Water Agency	55,750
Littlerock Creek Irrigation District	2,300
Metropolitan Water District of Southern California	1,911,500
Mojave Water Agency	82,800
Palmdale Water District	21,300
San Bernardino Valley Municipal Water District	102,600
San Gabriel Valley Municipal Water District	28,800
San Geronimo Pass Water Agency	17,300
Ventura County Watershed Protection District	20,000
Subtotal	2,623,100
TOTAL TABLE A AMOUNTS	4,171,536



Note: The differences in historical deliveries from the State Water Project Delivery Reliability Report 2013 are due to reclassification of the various components of water delivered to SWP contractors

Figure 5-1. Historical Deliveries of SWP Table A Water, 2005–2014



Carryover	185	182	95	110	180	264	268	381	351	383
Tumbuck	38	34	16	3	2	11	31	8	99	1
Article 21	731	621	310	3	6	8	421	0	0	1
Table A	2753	2776	2332	1242	1308	1774	2633	2227	1238	92

Note: The differences in historical deliveries from the State Water Project Delivery Reliability Report 2013 are due to reclassification of the various components of water delivered to SWP contractors

Figure 5-2. Total Historical SWP Deliveries, 2005–2014 (by Delivery Type)

Section 6

Existing SWP Water Delivery Capability (2015)

This Section presents estimates of the SWP's existing (2015) water delivery capability. The estimates are presented below, alongside the results obtained from the 2013 Report. Like this 2015 Report, the 2013 Report incorporated the requirements of BOs issued by USFWS and NMFS in December 2008 and June 2009, respectively, on the effects of coordinated operations of the SWP and CVP. These BOs are discussed in detail in Section 2, "Regulatory Restrictions on SWP Delta Exports."

The discussions of SWP water delivery capability in this Section presents the results of DWR's updated modeling of the SWP's water delivery capability. A tabular summary of the modeling results is presented in Appendix B of this report, which is available online at <http://baydeltaoffice.water.ca.gov/>.

Appendix B also contains annual delivery probability curves (i.e., exceedance plots) to graphically show the estimated percentage of years in which a given annual delivery is equaled or exceeded.

Hydrologic Sequence

SWP delivery amounts are estimated in this 2015 Report for existing conditions using computer modeling that incorporates the historic range of hydrologic conditions (i.e., precipitation and runoff) that occurred from water years 1922 through 2003. The historic hydrologic conditions are adjusted to account for land-use changes (i.e., the current level of development) and upstream flow regulations that characterize 2015. By using this 82-year historical flow record, the delivery estimates modeled for existing conditions reflect a reasonable range of potential hydrologic conditions from wet years to critically dry years.

Existing Demand for Delta Water

Demand levels for the SWP water users in this report are derived from historical data and information from the SWP contractors themselves. The amount of water that SWP contractors request each year (i.e., demand) is related to:

- The magnitude and type of water demands,
- The extent of water conservation measures,
- Local weather patterns, and
- Water costs.

The existing level of development (i.e., the level of water use in the source areas from which the water supply originates) is based on recent land uses, and is assumed to be representative of existing conditions for the purposes of this 2015 Report.

SWP Table A Water Demands

The current combined maximum Table A amount is 4,172 taf/year. See Table 5-1 in Section 5, “State Water Project Historical Delivery Capability (2005-2014). Of the combined maximum Table A amount, 4,132 taf/year is the SWP’s maximum Table A water available for delivery from the Delta.

The estimated demands by SWP contractors for deliveries of Table A water from the Delta under existing conditions is assumed to be the maximum SWP Table A delivery amount for the 2015 Report, similar to the 2013 Report (Table 6-1). Due to the fact that SWP contractors have been requesting the full amount in recent years, the 2013, and the 2015 Reports more accurately reflect the trend in demand.

Table 6-1. Comparison of Estimated Average, Maximum, and Minimum Demands for SWP Table A Water (Existing Conditions, in taf/year)		
	2013 Report	2015 Report
Average	4,132	4,132
Maximum	4,132	4,132
Minimum	4,132	4,132

SWP Article 21 Water Demands

Under Article 21 of the SWP’s long-term water supply contracts, contractors may receive additional water deliveries only under the following specific conditions:

- Such deliveries do not interfere with SWP Table A allocations and SWP operations;
- Excess water is available in the Delta;
- Capacity is not being used for SWP purposes or scheduled SWP deliveries; and
- Contractors can use the SWP Article 21 water directly or can store it in their own system (i.e., the water cannot be stored in the SWP system).

The demand for SWP Article 21 water by SWP contractors is assumed to vary depending on the month and weather conditions (i.e., amounts of precipitation and runoff). For the purposes of this discussion of SWP Article 21 water demands, a Kern wet year is defined as a year when the annual Kern River flow is projected to be greater than 1,500 taf. Kern River inflows are important because they are a major component of

the local water supply for Kern County Water Agency (KCWA), which is the second largest SWP contractor and possesses significant local groundwater recharge capability. During Kern wet years, KCWA uses more Kern River flows to recharge its groundwater storage and reduce its demand for Article 21 water.

As shown in Figure 6-1, existing demands for SWP Article 21 water estimated for this 2015 Report are assumed to be high during the spring and late fall in non-Kern wet years (214 taf/month) because the contractors cannot rely as heavily on the Kern River flows to recharge their groundwater storage. Demand for Article 21 water is also high during the winter months of December through March in all year types (202 taf in Kern wet years and 414 taf in non-Kern wet years). Demands are assumed to be very low (2 taf/month) from April through November of Kern wet years (because high Kern River flows provide groundwater recharge water) and from July through October of Kern dry years.

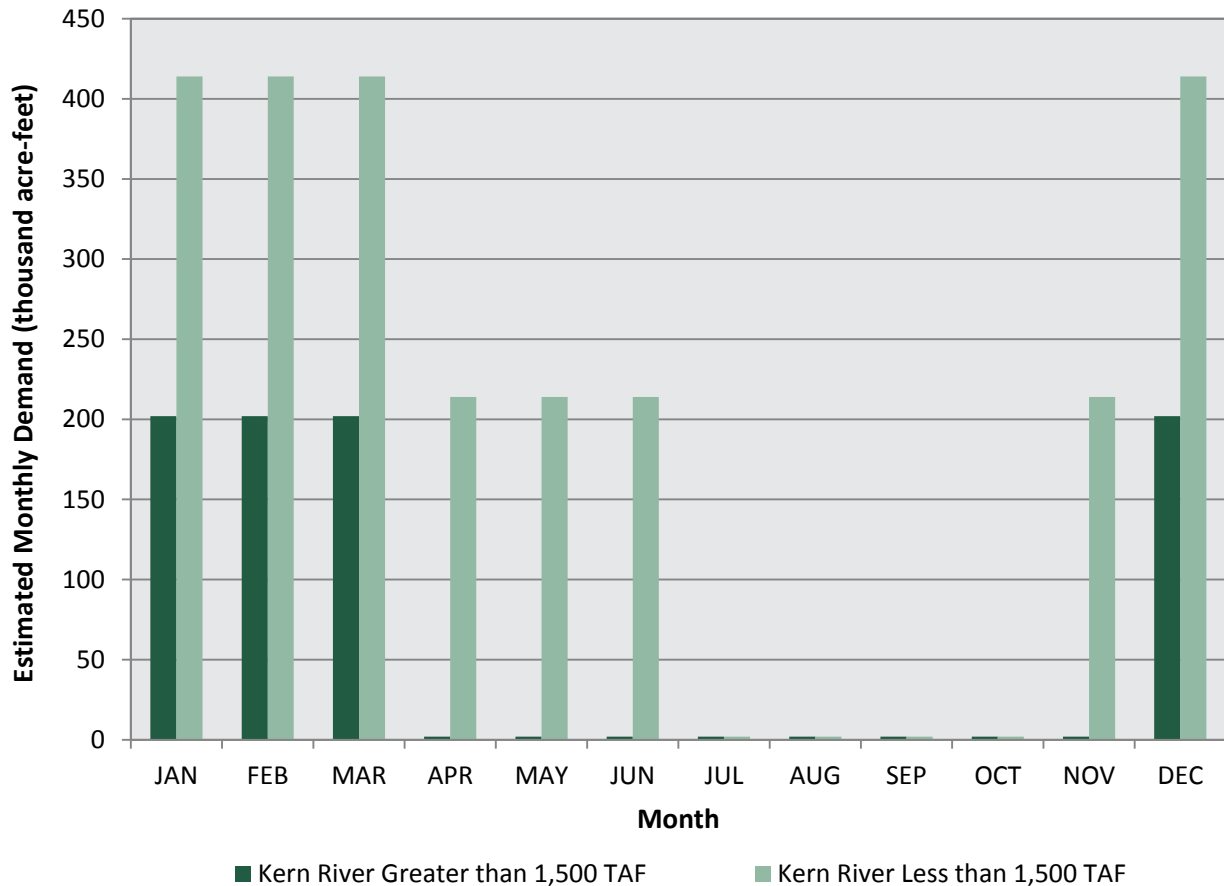
These demand patterns for SWP Article 21 water are identical to what was presented in the 2013 Report for existing conditions.

Estimates of SWP Table A Water Deliveries

Table 6-2 presents the annual average, maximum, and minimum estimates of SWP Table A deliveries from the Delta for existing conditions, as calculated for the 2013 and 2015 Reports. The average, maximum, and minimum Table A deliveries are relatively close in the 2013 and 2015 Reports.

Table 6-2. Comparison of Estimated Average, Maximum, and Minimum Deliveries of SWP Table A Water (Existing Conditions, in taf/year)		
	2013 Report	2015 Report
Average	2,553	2,550
Maximum	3,996	4,055
Minimum	495	454

Assumptions about Table A and Article 21 water demands, along with operations for carryover water, have been updated in the model based on discussions with State Water Contractors staff and DWR's Operations and Control Office.



Note: Values shown are the maximum amount that can be delivered monthly. However, the actual capability of SWP water contractors to take this amount of SWP Article 21 water is not the sum of these maximum monthly values.

Figure 6-1. SWP Article 21 Demands during Non-Kern Wet Years and Kern Wet Years (Existing Conditions)

Figure 6-2 presents the estimated likelihood of delivery of a given amount of SWP Table A water under the existing conditions scenario, as estimated for both the 2013 and 2015 Reports. This figure shows that there is a 74% likelihood (79% with the 2013 Report) that more than 2,000 taf/year of Table A water will be delivered under the current estimates. The distribution of the delivery ranges has also changed since the 2013 Report. For example, Figure 6-2 shows a shift of Table A deliveries from the 2,500–3,000 taf/year range to the 3,000–3,500 taf/year range.

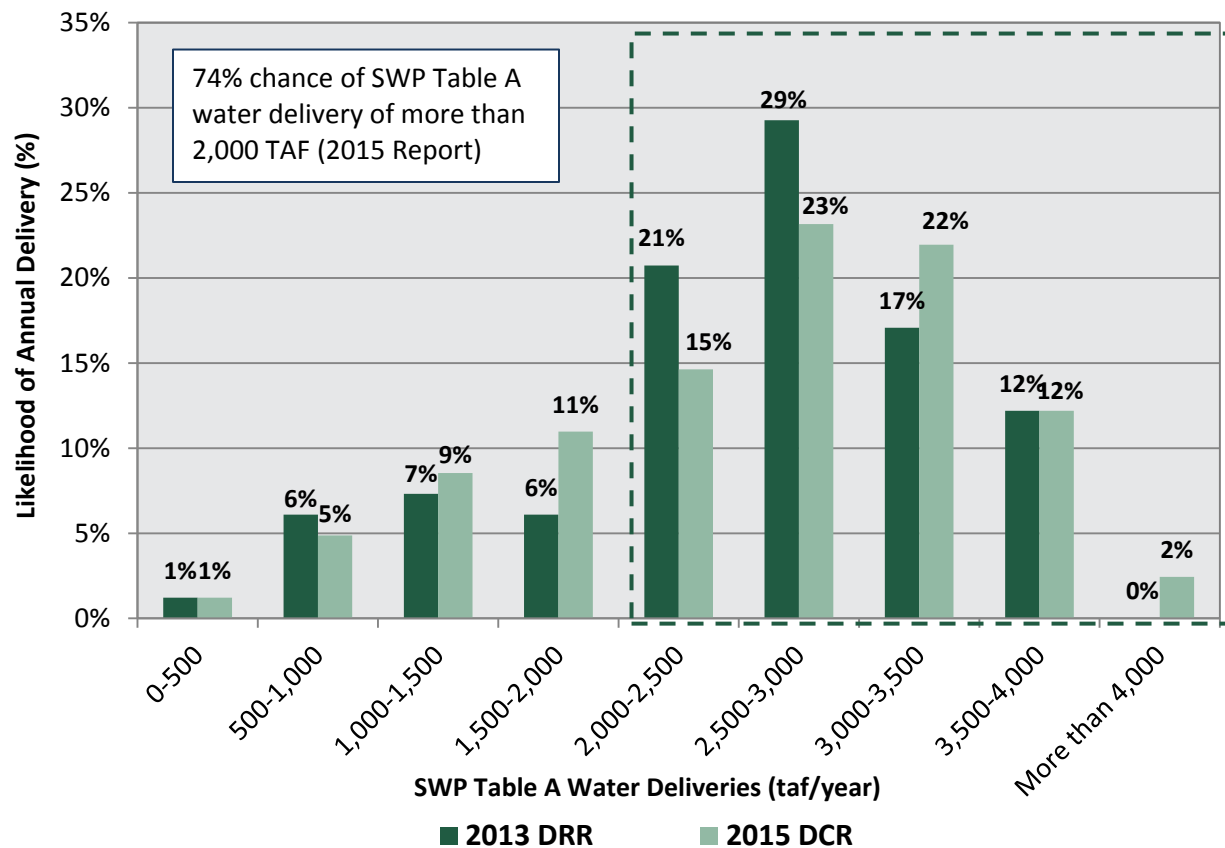


Figure 6-2. Estimated Likelihood of SWP Table A Water Deliveries, by Increments of 500 taf (Existing Conditions)

Wet-Year Deliveries of SWP Table A Water

Table 6-3 and Figure 6-3 present estimates of SWP Table A water deliveries under existing conditions during possible wet conditions and compares them with corresponding delivery estimates calculated for the 2013 Report. Wet periods for 2015 are analyzed using historical precipitation and runoff patterns from 1922–2003 as a reference, while accounting for existing 2015 conditions (e.g., land use, water infrastructure). For reference, the wettest single year on record was 1983.

The results of modeling existing conditions over historical wet years indicate that SWP Table A water deliveries during wet periods can be estimated to range between yearly averages of 4,055 to 3,123 taf.

Table 6-3 shows that the 2015 deliveries of SWP Table A water increased in wet periods (in comparison to the 2013 Report).

Table 6-3. Estimated Average and Wet-Period Deliveries of SWP Table A Water (Existing Conditions, in taf/year) and Percent of Maximum SWP Table A Amount, 4,132 taf/year

	Long-term Average (1921–2003)		Single Wet Year (1983)		Wet Periods							
					2 Years (1982–1983)		4 Years (1980–1983)		6 Years (1978–1983)		10 Years (1978–1987)	
2013 Report	2,553	62%	3,996	97%	3,880	94%	3,501	85%	3,361	81%	3,086	75%
2015 Report	2,550	62%	4,055	98%	3,946	95%	3,558	86%	3,414	83%	3,123	76%

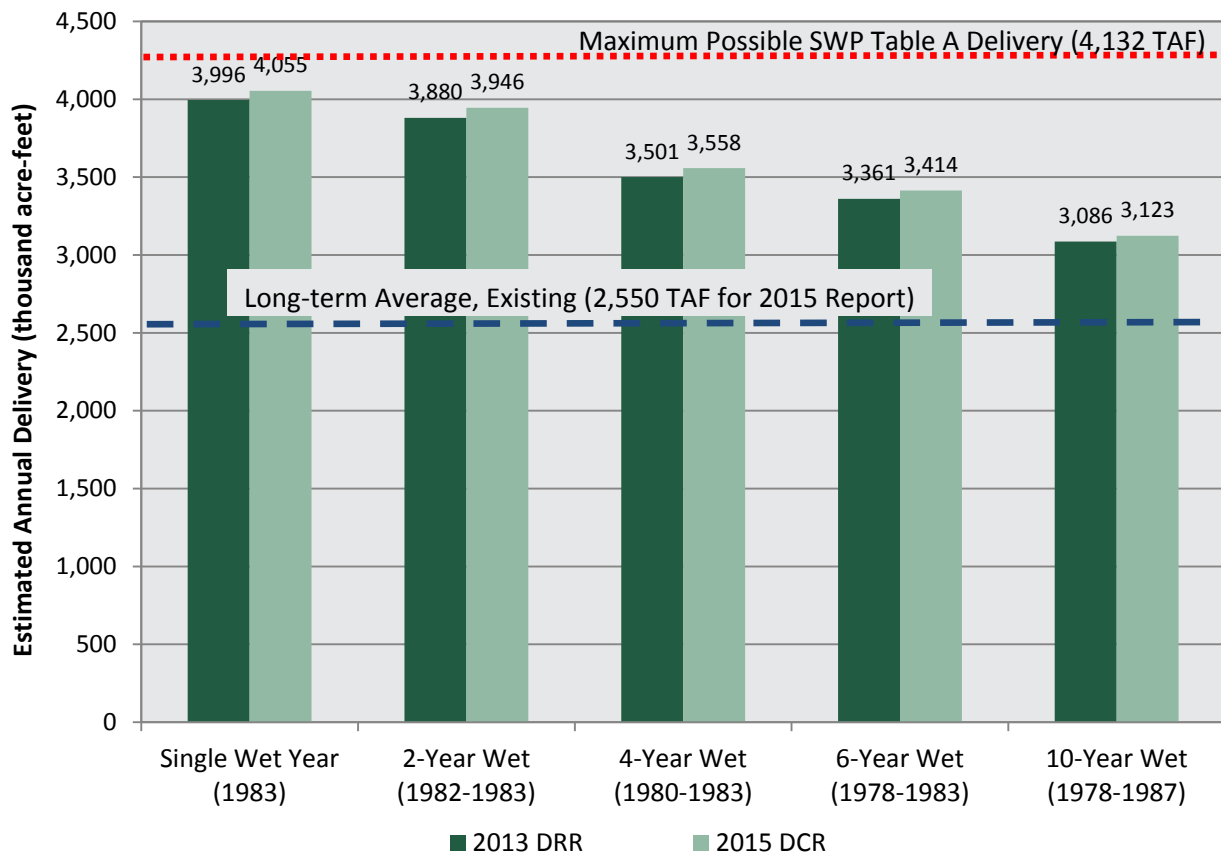


Figure 6-3. Estimated Wet-Period SWP Table A Water Deliveries (Existing Conditions)

Dry-Year Deliveries of SWP Table A Water

Table 6-4 and Figure 6-4 display estimates of existing-conditions deliveries of SWP Table A water during possible drought conditions and compares them with the corresponding delivery estimates calculated for the 2013 Report. Droughts are analyzed using the historical drought-period precipitation and runoff patterns from 1922 through 2003 as a reference, although existing 2015 conditions (e.g., land use, water infrastructure) are also accounted for in the modeling. For reference, the worst multiyear

drought on record was the 1929–1934 drought, although the brief drought of 1976–1977 was more intensely dry.

The results of modeling existing conditions under historical drought scenarios indicate that SWP Table A water deliveries during dry years can be estimated to range between yearly averages of 454 and 1,356 taf.

On average, the dry-period deliveries of Table A water are higher in this 2015 Report than in the 2013 Report because of model refinements (discussed in detail in Appendix B).

	Long-term Average (1921–2003)		Single Dry Year (1977)		Dry Periods							
					2-Year Drought (1976–1977)		4-Year Drought (1931–1934)		6-Year Drought (1987–1992)		6-Year Drought (1929–1934)	
2013 Report	2,553	62%	495	12%	1,269	31%	1,263	31%	1,176	28%	1,260	30%
2015 Report	2,550	62%	454	11%	1,165	28%	1,356	33%	1,182	29%	1,349	33%

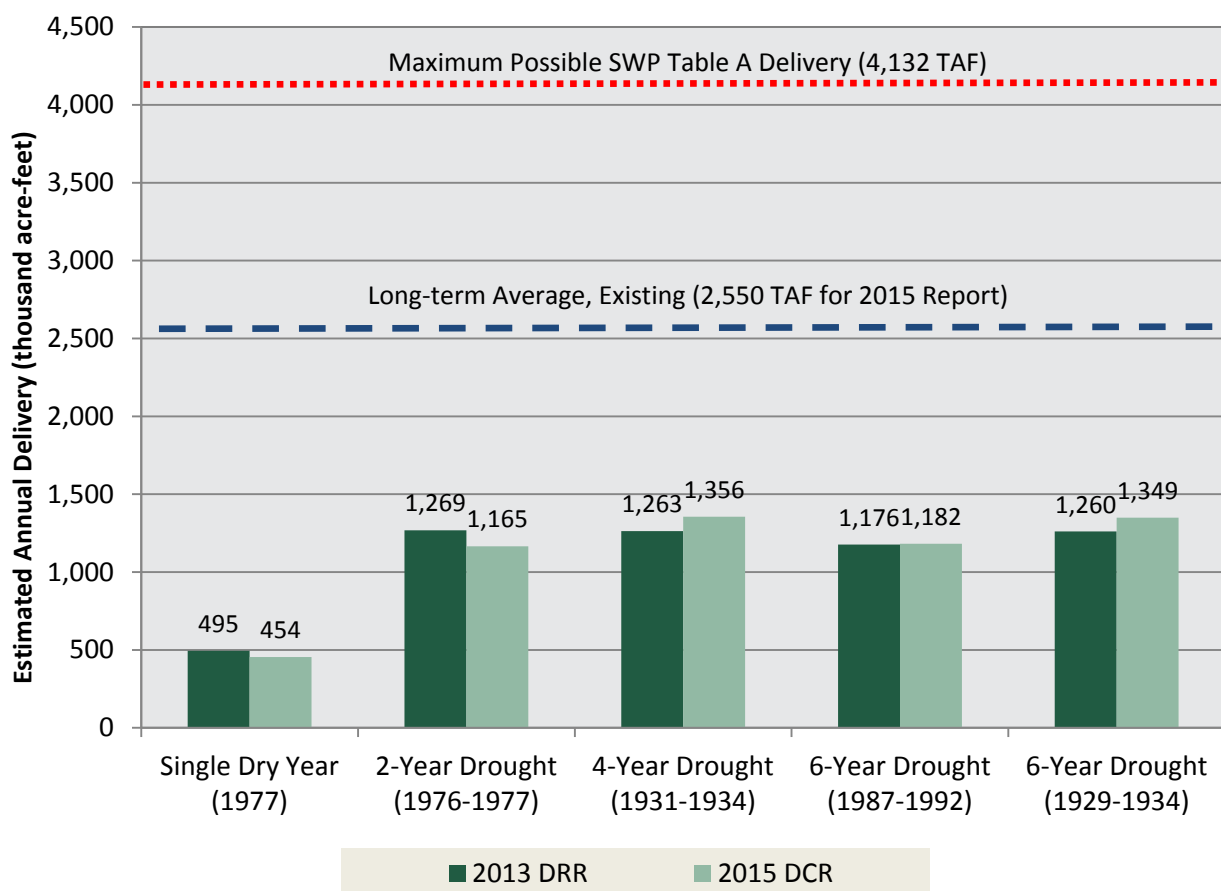


Figure 6-4. Estimated Dry-Period SWP Table A Water Deliveries (Existing Conditions)

Estimates of SWP Article 21 Water Deliveries

SWP water delivery is a combination of deliveries of Table A water and Article 21 water. Some SWP contractors store Article 21 water locally when extra water and capacity are available beyond that needed by normal SWP operations. Deliveries of SWP Article 21 water vary not only by year, but also by month. The estimated range of monthly deliveries of SWP Article 21 water is displayed in Figure 6-5. In May through October, essentially no Article 21 water is estimated to be delivered. In the late fall and winter (November through April), maximum monthly deliveries range from 82 to 339 taf/month.

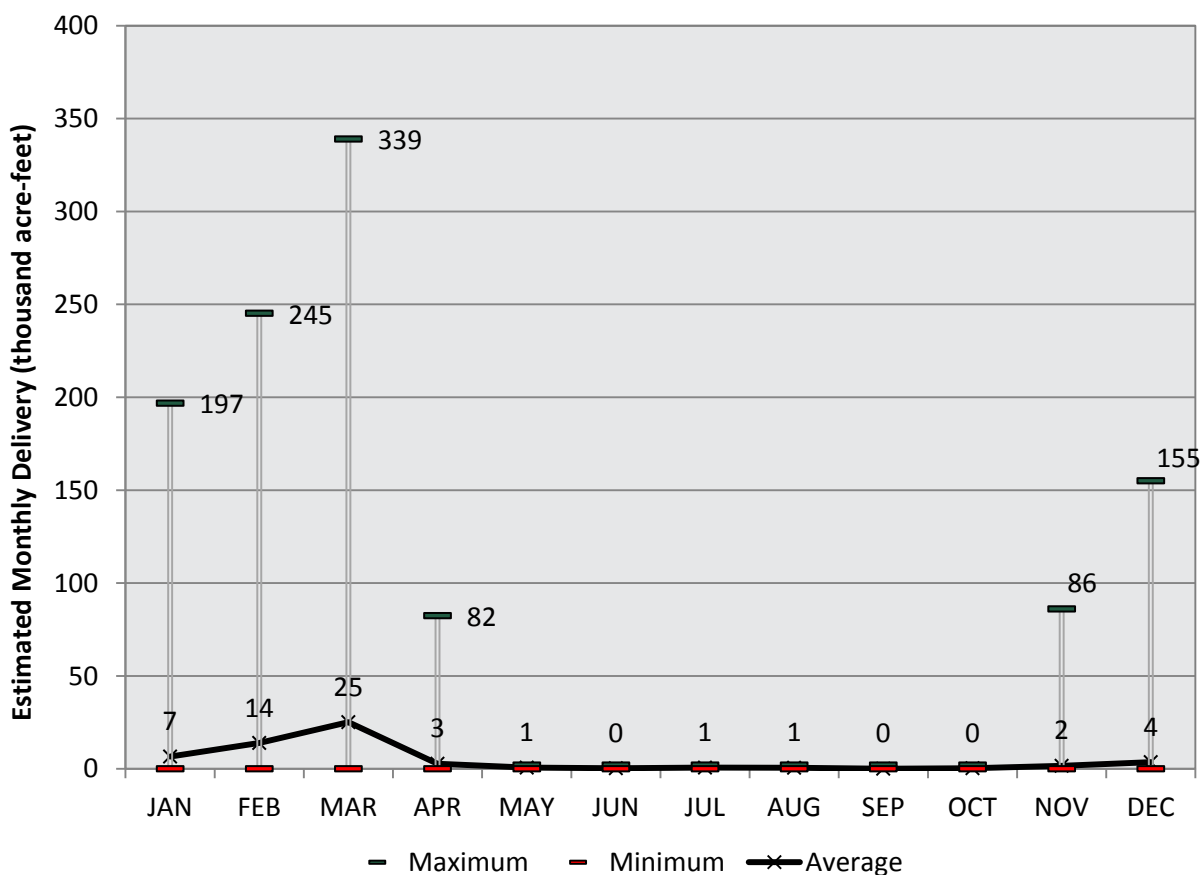


Figure 6-5. Estimated Range of Monthly Deliveries of SWP Article 21 Water (Existing Conditions)

The estimated likelihood that a given amount of SWP Article 21 water will be delivered is presented in Figure 6-6.

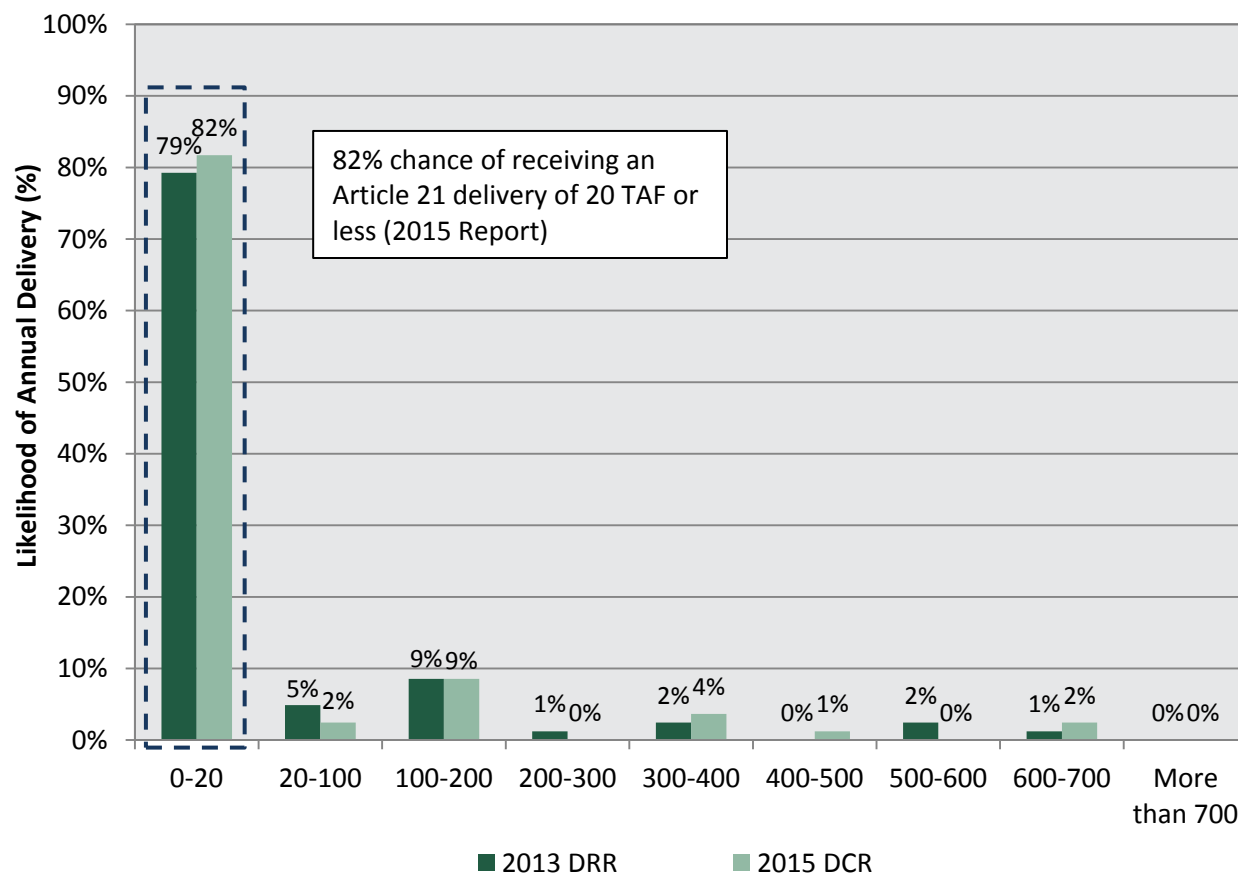


Figure 6-6. Estimated Likelihood of Annual Deliveries of SWP Article 21 Water (Existing Conditions)

Wet-Year Deliveries of SWP Article 21 Water

Table 6-5 shows the estimates of deliveries of SWP Article 21 water during wet periods under existing conditions. Estimated deliveries in wet years are approximately 1.7 to 5.6 times larger than the average existing-conditions delivery of SWP Article 21 water.

In general, the wet-period Article 21 deliveries in this 2015 Report are lower than in the 2013 Report.

	Long-term Average (1921–2003)	Single Wet Year (1983)	Wet Periods			
			2 Years (1982–1983)	4 Years (1980–1983)	6 Years (1978–1983)	10 Years (1978–1987)
2013 Report	58	333	265	196	135	152
2015 Report	56	316	204	134	93	134

Dry-Year Deliveries of SWP Article 21 Water

Although deliveries of SWP Article 21 water are smaller during dry years than during wet ones, opportunities exist to deliver SWP Article 21 water during multiyear drought periods. As modeled, deliveries in dry years are often small (less than 5 taf); however, longer drought periods can include several years that support Article 21 deliveries. Annual average Article 21 estimates for drought periods of 4 and 6 years vary greatly and can approach a significant fraction of the long-term average annual estimate, as shown in Table 6-6.

Table 6-6. Estimated Average and Dry-Period Deliveries of SWP Article 21 Water (Existing Conditions, in taf/year)						
	Long-term Average (1921–2003)	Single Dry Year (1977)	Wet Periods			
			2-Year Drought (1976–1977)	4-Year Drought (1931–1934)	6-Year Drought (1987–1992)	6-Year Drought (1929–1934)
2013 Report	58	10	13	46	11	35
2015 Report	56	8	12	41	13	31

Section 7

Historical SWP Delivery Tables for 2005–2014

The State Water Project (SWP) contracts define several types of SWP water available for delivery to contractors under specific circumstances: Table A water, Article 21 water, turnback pool water, and carryover water. Many SWP contractors frequently use Article 21, turnback pool, and carryover water to increase or decrease the amount of water available to them under SWP Table A.

The Sacramento River Index, previously referred to as the “4 River Index” or “4 Basin Index,” is the sum of the unimpaired runoff of four rivers: the Sacramento River above Bend Bridge near Red Bluff, Feather River inflow to Lake Oroville Reservoir, Yuba River at Smartville, and American River inflow to Folsom Lake. The five water year types used in the Sacramento River Index are as follows:

Table 7-1. Water year types used in the Sacramento River Index	
Sacramento River Index	Water Year Type
1	Wet
2	Above Normal
3	Below Normal
4	Dry
5	Critical

Tables 7-2 through 7-11 list annual historical deliveries by SWP water type for each contractor for 2005 through 2014. Similar delivery tables are presented for years 2003–2012 in the *State Water Project Delivery Reliability Report 2013*. Any differences in values presented in this 2015 report and those in the 2013 report are due to reclassification of deliveries since the production of the 2013 report.

Table 7–2. Historical State Water Project Deliveries, Calendar Year 2005

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	527	-	-	-	527
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	1,894	-	-	-	1,894
	Subtotal	2,421	-	-	-	2,421
North Bay Area	Napa County FCWCD	5,322	606	1,741	-	7,669
	Solano County WA	24,515	10,421	83	-	35,019
	Subtotal	29,837	11,027	1,824	-	42,688
South Bay Area	Alameda County FCWCD, Zone 7	38,388	-	7,849	275	46,512
	Alameda County WD	36,469	846	6,341	943	44,599
	Santa Clara Valley WD	89,476	6,298	12,133	342	108,249
	Subtotal	164,333	7,144	26,323	1,560	199,360
San Joaquin Valley Area	Dudley Ridge WD	51,609	28,197	821	1,286	81,913
	Empire West Side ID	1,448	1,799	587	-	3,834
	Kern County WA	893,439	453,078	8,985	22,397	1,377,899
	Kings County	8,100	11,504	-	202	19,806
	Oak Flat WD	4,067	-	-	127	4,194
	Tulare Lake Basin WSD	86,604	47,267	3,973	2,158	140,002
	Subtotal	1,045,267	541,845	14,366	26,170	1,627,648
Central Coastal Area	San Luis Obispo County FCWCD	4,006	245	-	-	4,251
	Santa Barbara County FCWCD	22,981	-	208	155	23,344
	Subtotal	26,987	245	208	155	27,595
Southern California Area	Antelope Valley–East Kern WA	57,205	-	2,626	-	59,831
	Castaic Lake WA	54,303	2,451	2,702	-	59,456
	Coachella Valley WD	26,984	-	12,819	2,716	42,519
	Crestline–Lake Arrowhead WA	807	-	-	-	807
	Desert WA	33,168	-	14,799	1,122	49,089
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,247,183	168,300	106,032	6,530	1,528,045
	Mojave WA	10,360	-	1,201	-	11,561
	Palmdale WD	10,174	-	1,538	-	11,712
	San Bernardino Valley MWD	31,205	56	282	-	31,543
	San Gabriel Valley MWD	10,500	-	-	-	10,500
	San Geronio Pass WA	655	15	-	22	692
	Ventura County WPD	1,665	-	-	-	1,665
	Subtotal	1,484,209	170,822	141,999	10,390	1,807,420
TOTAL SWP DELIVERIES		2,753,054	731,083	184,720	38,275	3,707,132

Table 7–3. Historical State Water Project Deliveries, Calendar Year 2006

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	468	-	-	-	468
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	4,148	1,194	-	-	5,342
	Subtotal	4,616	1,194	-	-	5,810
North Bay Area	Napa County FCWCD	7,317	300	172	-	7,789
	Solano County WA	12,070	18,195	390	-	30,655
	Subtotal	19,387	18,495	562	-	38,444
South Bay Area	Alameda County FCWCD, Zone 7	50,784	-	2,252	491	53,527
	Alameda County WD	39,570	1,922	1,331	256	43,079
	Santa Clara Valley WD	47,344	26,769	524	-	74,637
	Subtotal	137,698	28,691	4,107	747	171,243
San Joaquin Valley Area	Dudley Ridge WD	55,343	18,429	-	1,068	74,840
	Empire West Side ID	1,500	1,124	658	-	3,282
	Kern County WA	970,689	247,914	5,418	18,610	1,242,631
	Kings County	8,991	366	-	173	9,530
	Oak Flat WD	4,118	-	17	107	4,242
	Tulare Lake Basin WSD	48,361	58,059	-	1,787	108,207
	Subtotal	1,089,002	325,892	6,093	21,745	1,442,732
Central Coastal Area	San Luis Obispo County FCWCD	3,382	827	-	-	4,209
	Santa Barbara County FCWCD	19,255	4,020	-	-	23,275
	Subtotal	22,637	4,847	-	-	27,484
Southern California Area	Antelope Valley–East Kern WA	76,623	-	3,761	-	80,384
	Castaic Lake WA	56,758	2,089	3,905	-	62,752
	Coachella Valley WD	121,100	-	-	-	121,100
	Crestline–Lake Arrowhead WA	641	-	-	-	641
	Desert WA	50,000	-	-	-	50,000
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,103,538	238,478	158,532	11,638	1,512,186
	Mojave WA	32,496	-	1,518	-	34,014
	Palmdale WD	10,374	1,653	335	130	12,492
	San Bernardino Valley MWD	31,902	-	3,427	-	35,329
	San Gabriel Valley MWD	13,524	-	-	-	13,524
	San Geronio Pass WA	4,278	-	-	-	4,278
	Ventura County WPD	1,850	-	-	-	1,850
	Subtotal	1,503,084	242,220	171,478	11,768	1,928,550
TOTAL SWP DELIVERIES		2,776,424	621,339	182,240	34,260	3,614,263

Table 7–4. Historical State Water Project Deliveries, Calendar Year 2007

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	720	-	-	-	720
	Plumas County FCWCD	-	-	-	-	-
	Yuba City	2,327	-	-	-	2,327
	Subtotal	3,047	-	-	-	3,047
North Bay Area	Napa County FCWCD	6,362	3,597	998	-	10,957
	Solano County WA	14,892	8,217	1,822	-	24,931
	Subtotal	21,254	11,814	2,820	-	35,888
South Bay Area	Alameda County FCWCD, Zone 7	32,972	912	2,895	378	37,157
	Alameda County WD	16,541	550	2,103	197	19,391
	Santa Clara Valley WD	38,812	4,840	8,161	469	52,282
	Subtotal	88,325	6,302	13,159	1,044	108,830
San Joaquin Valley Area	Dudley Ridge WD	28,457	8,953	2,000	269	39,679
	Empire West Side ID	397	1,172	515	-	2,084
	Kern County WA	592,423	99,861	19,645	4,683	716,612
	Kings County	4,924	474	305	43	5,746
	Oak Flat WD	3,420	41	69	27	3,557
	Tulare Lake Basin WSD	57,272	12,902	16,459	450	87,083
	Subtotal	686,893	123,403	38,993	5,472	854,761
Central Coastal Area	San Luis Obispo County FCWCD	3,752	24	-	-	3,776
	Santa Barbara County FCWCD	24,760	1,070	1,390	-	27,220
	Subtotal	28,512	1,094	1,390	-	30,996
Southern California Area	Antelope Valley–East Kern WA	74,459	-	4,364	-	78,823
	Castaic Lake WA	44,974	-	4,216	-	49,190
	Coachella Valley WD	72,660	-	-	568	73,228
	Crestline–Lake Arrowhead WA	1,768	-	-	-	1,768
	Desert WA	30,000	-	-	234	30,234
	Littlerock Creek ID	1,380	-	-	-	1,380
	Metropolitan WD of Southern California	1,146,900	166,517	28,098	8,962	1,350,477
	Mojave WA	45,372	-	737	-	46,109
	Palmdale WD	12,780	843	985	100	14,708
	San Bernardino Valley MWD	57,116	-	-	-	57,116
	San Gabriel Valley MWD	10,000	-	-	-	10,000
	San Geronio Pass WA	3,935	-	-	-	3,935
	Ventura County WPD	3,000	-	-	-	3,000
	Subtotal	1,504,344	167,360	38,400	9,864	1,719,968
TOTAL SWP DELIVERIES		2,332,375	309,973	94,762	16,380	2,753,490

Table 7–5. Historical State Water Project Deliveries, Calendar Year 2008

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	9,436	-	-	-	9,436
	Plumas County FCWCD	243	-	-	-	243
	Yuba City	1,923	-	-	-	1,923
	Subtotal	11,602	-	-	-	11,602
North Bay Area	Napa County FCWCD	3,636	1,219	7,363	21	12,239
	Solano County WA	10,436	1,510	12,389	-	24,335
	Subtotal	14,072	2,729	19,752	21	36,574
South Bay Area	Alameda County FCWCD, Zone 7	13,633	-	15,400	-	29,033
	Alameda County WD	4,206	-	8,659	37	12,902
	Santa Clara Valley WD	11,133	-	21,188	88	32,409
	Subtotal	28,972	-	45,247	125	74,344
San Joaquin Valley Area	Dudley Ridge WD	12,260	-	5,949	51	18,260
	Empire West Side ID	-	-	915	-	915
	Kern County WA	271,636	-	6,815	883	279,334
	Kings County	3,187	-	541	8	3,736
	Oak Flat WD	1,929	-	-	5	1,934
	Tulare Lake Basin WSD	32,302	-	281	85	32,668
	Subtotal	321,314	-	14,501	1,032	336,847
Central Coastal Area	San Luis Obispo County FCWCD	8,512	-	-	-	8,512
	Santa Barbara County FCWCD	11,311	-	2,532	40	13,883
	Subtotal	19,823	-	2,532	40	22,395
Southern California Area	Antelope Valley–East Kern WA	31,082	-	10,381	125	41,588
	Castaic Lake WA	18,710	-	12,146	-	30,856
	Coachella Valley WD	42,385	-	-	107	42,492
	Crestline–Lake Arrowhead WA	1,159	-	689	-	1,848
	Desert WA	17,500	-	-	44	17,544
	Littlerock Creek ID	805	-	-	-	805
	Metropolitan WD of Southern California	658,304	-	-	1,689	659,993
	Mojave WA	26,288	-	108	-	26,396
	Palmdale WD	4,226	-	-	19	4,245
	San Bernardino Valley MWD	26,562	-	4,444	-	31,006
	San Gabriel Valley MWD	10,080	-	-	-	10,080
	San Geronio Pass WA	5,419	-	300	-	5,719
	Ventura County WPD	3,798	-	-	-	3,798
	Subtotal	846,318	-	28,068	1,984	876,370
TOTAL SWP DELIVERIES		1,242,101	2,729	110,100	3,202	1,358,132

Table 7-6. Historical State Water Project Deliveries, Calendar Year 2009

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	10,206	-	-	-	10,206
	Plumas County FCWCD	200	-	-	-	200
	Yuba City	2,114	-	-	-	2,114
	Subtotal	12,520	-	-	-	12,520
North Bay Area	Napa County FCWCD	2,723	1,588	4,475	13	8,799
	Solano County WA	7,118	4,444	3,123	-	14,685
	Subtotal	9,841	6,032	7,598	13	23,484
South Bay Area	Alameda County FCWCD, Zone 7	11,745	-	14,584	-	26,329
	Alameda County WD	5,911	-	10,494	8	16,413
	Santa Clara Valley WD	9,188	-	23,867	54	33,109
	Subtotal	26,844	-	48,945	62	75,851
San Joaquin Valley Area	Dudley Ridge WD	13,185	-	7,810	32	21,027
	Empire West Side ID	1,034	-	-	-	1,034
	Kern County WA	325,426	-	56,367	544	382,337
	Kings County	3,153	-	70	5	3,228
	Oak Flat WD	1,825	-	66	3	1,894
	Tulare Lake Basin WSD	35,160	-	1,271	52	36,483
	Subtotal	379,783	-	65,584	636	446,003
Central Coastal Area	San Luis Obispo County FCWCD	9,723	-	-	-	9,723
	Santa Barbara County FCWCD	4,961	-	4,523	25	9,509
	Subtotal	14,684	-	4,523	25	19,232
Southern California Area	Antelope Valley-East Kern WA	13,499	-	18,408	77	31,984
	Castaic Lake WA	14,858	-	9,529	52	24,439
	Coachella Valley WD	40,845	-	-	66	40,911
	Crestline-Lake Arrowhead WA	1,000	-	893	-	1,893
	Desert WA	16,865	-	-	27	16,892
	Littlerock Creek ID	920	-	-	-	920
	Metropolitan WD of Southern California	696,817	-	10,721	1,042	708,580
	Mojave WA	30,300	-	242	-	30,542
	Palmdale WD	2,470	-	3,229	-	5,699
	San Bernardino Valley MWD	26,085	-	9,348	-	35,433
	San Gabriel Valley MWD	11,516	-	-	-	11,516
	San Geronio Pass WA	5,312	-	480	-	5,792
	Ventura County WPD	3,890	-	-	-	3,890
	Subtotal	864,377	-	52,850	1,264	918,491
TOTAL SWP DELIVERIES		1,308,049	6,032	179,500	2,000	1,495,581

Table 7-7. Historical State Water Project Deliveries, Calendar Year 2010

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre-feet)				Total SWP Deliveries (acre-feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	807	-	-	-	807
	Plumas County FCWCD	243	-	-	-	243
	Yuba City	2,331	-	-	-	2,331
	Subtotal	3,381	-	-	-	3,381
North Bay Area	Napa County FCWCD	7,275	2,207	2,845	90	12,417
	Solano County WA	13,793	5,298	3,661	-	22,752
	Subtotal	21,068	7,505	6,506	90	35,169
South Bay Area	Alameda County FCWCD, Zone 7	28,694	-	13,104	249	42,047
	Alameda County WD	11,668	-	10,889	14	22,571
	Santa Clara Valley WD	37,850	-	22,471	34	60,355
	Subtotal	78,212	-	46,464	297	124,973
San Joaquin Valley Area	Dudley Ridge WD	19,650	-	9,750	156	29,556
	Empire West Side ID	380	-	166	-	546
	Kern County WA	411,821	-	55,419	3,044	470,284
	Kings County	4,094	-	522	29	4,645
	Oak Flat WD	2,412	-	455	18	2,885
	Tulare Lake Basin WSD	39,835	-	3,199	275	43,309
	Subtotal	478,192	-	69,511	3,522	551,225
Central Coastal Area	San Luis Obispo County FCWCD	3,480	-	277	-	3,757
	Santa Barbara County FCWCD	8,640	-	8,995	140	17,775
	Subtotal	12,120	-	9,272	140	21,532
Southern California Area	Antelope Valley-East Kern WA	35,312	-	20,813	438	56,563
	Castaic Lake WA	37,054	-	14,501	295	51,850
	Coachella Valley WD	69,175	-	7,595	429	77,199
	Crestline-Lake Arrowhead WA	1,357	-	-	-	1,357
	Desert WA	27,875	-	3,135	173	31,183
	Little Rock Creek ID	1,150	-	-	-	1,150
	Metropolitan WD of Southern California	900,210	-	67,783	5,922	973,915
	Mojave WA	41,132	-	20	-	41,152
	Palmdale WD	5,585	-	5,325	59	10,969
	San Bernardino Valley MWD	38,133	-	11,273	-	49,406
	San Gabriel Valley MWD	14,400	-	-	-	14,400
	San Geronio Pass WA	5,226	-	1,608	6	6,840
	Ventura County WPD	4,075	-	-	-	4,075
	Subtotal	1,180,684	-	132,053	7,322	1,320,059
TOTAL SWP DELIVERIES		1,773,657	7,505	263,806	11,371	2,056,339

Table 7–8. Historical State Water Project Deliveries, Calendar Year 2011

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	1,092	-	-	-	1,092
	Plumas County FCWCD	98	-	-	-	98
	Yuba City	2,297	-	-	-	2,297
	Subtotal	3,487	-	-	-	3,487
North Bay Area	Napa County FCWCD	9,426	-	1,388	-	10,814
	Solano County WA	9,620	14,739	-	-	24,359
	Subtotal	19,046	14,739	1,388	-	35,173
South Bay Area	Alameda County FCWCD, Zone 7	39,066	-	11,675	1,319	52,060
	Alameda County WD	24,813	1,959	9,332	506	36,610
	Santa Clara Valley WD	64,538	970	20,491	-	85,999
	Subtotal	128,417	2,929	41,498	1,825	174,669
San Joaquin Valley Area	Dudley Ridge WD	40,141	11,666	5,524	823	58,154
	Empire West Side ID	1,626	138	151	-	1,915
	Kern County WA	753,707	194,119	119,773	16,068	1,083,667
	Kings County	5,294	552	558	152	6,556
	Oak Flat WD	2,644	-	71	-	2,715
	Tulare Lake Basin WSD	39,056	6,909	4,626	1,454	52,045
	Subtotal	842,468	213,384	130,703	18,497	1,205,052
Central Coastal Area	San Luis Obispo County FCWCD	3,340	-	479	-	3,819
	Santa Barbara County FCWCD	29,132	-	9,318	-	38,450
	Subtotal	32,472	-	9,797	-	42,269
Southern California Area	Antelope Valley–East Kern WA	77,549	7,629	5,888	-	91,066
	Castaic Lake WA	34,067	400	9,332	-	43,799
	Coachella Valley WD	88,017	-	-	2,262	90,279
	Crestline–Lake Arrowhead WA	423	-	51	-	474
	Desert WA	36,139	-	-	240	36,379
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,286,935	181,610	55,540	8,237	1,532,322
	Mojave WA	4,831	-	268	-	5,099
	Palmdale WD	12,294	-	5,019	-	17,313
	San Bernardino Valley MWD	30,916	-	7,210	-	38,126
	San Gabriel Valley MWD	23,040	-	-	-	23,040
	San Geronio Pass WA	8,884	-	1,619	-	10,503
	Ventura County WPD	4,000	-	-	-	4,000
	Subtotal	1,607,095	189,639	84,927	10,739	1,892,400
TOTAL SWP DELIVERIES		2,632,985	420,691	268,313	31,061	3,353,050

Table 7–9. Historical State Water Project Deliveries, Calendar Year 2012

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	17,875	-	-	-	17,875
	Plumas County FCWCD	79	-	-	-	79
	Yuba City	2,695	-	-	-	2,695
	Subtotal	20,649	-	-	-	20,649
North Bay Area	Napa County FCWCD	5,065	-	4,278	64	9,407
	Solano County WA	11,673	-	9,641	-	21,314
	Subtotal	16,738	-	13,919	64	30,721
South Bay Area	Alameda County FCWCD, Zone 7	32,301	-	20,357	179	52,837
	Alameda County WD	11,951	-	8,787	93	20,831
	Santa Clara Valley WD	34,612	-	11,462	222	46,296
	Subtotal	78,864	-	40,606	494	119,964
San Joaquin Valley Area	Dudley Ridge WD	17,694	-	-	112	17,806
	Empire West Side ID	1,468	-	774	-	2,242
	Kern County WA	560,969	-	32,477	2,180	595,626
	Kings County	5,337	-	2,001	21	7,359
	Oak Flat WD	2,596	-	612	-	3,208
	Tulare Lake Basin WSD	53,630	-	32,081	197	85,908
	Subtotal	641,694	-	67,945	2,510	712,149
Central Coastal Area	San Luis Obispo County FCWCD	3,111	-	833	-	3,944
	Santa Barbara County FCWCD	20,874	-	43	-	20,917
	Subtotal	23,985	-	876	-	24,861
Southern California Area	Antelope Valley–East Kern WA	80,694	-	32,854	-	113,548
	Castaic Lake WA	42,707	-	11,350	-	54,057
	Coachella Valley WD	89,928	-	22,663	307	112,898
	Crestline–Lake Arrowhead WA	624	-	-	-	624
	Desert WA	36,238	-	8,461	124	44,823
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	1,086,084	-	118,172	4,241	1,208,497
	Mojave WA	4,672	-	6,572	-	11,244
	Palmdale WD	9,959	-	4,736	-	14,695
	San Bernardino Valley MWD	65,102	-	47,870	-	112,972
	San Gabriel Valley MWD	18,720	-	-	-	18,720
	San Geronio Pass WA	5,968	-	4,956	-	10,924
	Ventura County WPD	4,353	-	-	-	4,353
	Subtotal	1,445,049	-	257,634	4,672	1,707,355
TOTAL SWP DELIVERIES		2,226,979	-	380,980	7,740	2,615,699

Table 7–10. Historical State Water Project Deliveries, Calendar Year 2013

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	9,233	-	-	-	9,233
	Plumas County FCWCD	366	-	-	-	366
	Yuba City	3,360	-	1,490	-	4,850
	Subtotal	12,959	-	1,490	-	14,449
North Bay Area	Napa County FCWCD	2,963	-	9,075	-	12,038
	Solano County WA	5,355	-	17,805	-	23,160
	Subtotal	8,318	-	26,880	-	35,198
South Bay Area	Alameda County FCWCD, Zone 7	14,059	-	21,042	2,596	37,697
	Alameda County WD	4,241	-	15,349	50	19,640
	Santa Clara Valley WD	9,353	-	16,261	10,749	36,363
	Subtotal	27,653	-	52,652	13,395	93,700
San Joaquin Valley Area	Dudley Ridge WD	6,113	-	9,951	5,412	21,476
	Empire West Side ID	1,004	-	482	16	1,502
	Kern County WA	314,466	-	73,303	37,005	424,774
	Kings County	2,851	-	591	1,000	4,442
	Oak Flat WD	583	-	2,200	7	2,790
	Tulare Lake Basin WSD	27,803	-	4,169	8,400	40,372
	Subtotal	352,820	-	90,696	51,840	495,356
Central Coastal Area	San Luis Obispo County FCWCD	1,178	-	2,503	-	3,681
	Santa Barbara County FCWCD	3,252	-	12,233	-	15,485
	Subtotal	4,430	-	14,736	-	19,166
Southern California Area	Antelope Valley–East Kern WA	37,628	-	13,386	-	51,014
	Castaic Lake WA	33,320	-	28,434	-	61,754
	Coachella Valley WD	48,423	-	-	164	48,587
	Crestline–Lake Arrowhead WA	1,368	-	2,000	-	3,368
	Desert WA	19,513	-	-	66	19,579
	Littlerock Creek ID	-	-	-	-	-
	Metropolitan WD of Southern California	619,863	-	106,288	32,267	758,418
	Mojave WA	25,294	-	2,852	-	28,146
	Palmdale WD	4,559	-	3,122	-	7,681
	San Bernardino Valley MWD	26,159	-	4,426	-	30,585
	San Gabriel Valley MWD	10,080	-	-	-	10,080
	San Geronio Pass WA	2,339	-	3,729	1,000	7,068
	Ventura County WPD	2,890	-	-	-	2,890
	Subtotal	831,436	-	164,237	33,497	1,029,170
TOTAL SWP DELIVERIES		1,237,616	-	350,691	98,732	1,687,039

Table 7–11. Historical State Water Project Deliveries, Calendar Year 2014

Contractor Location	SWP Contractor	SWP Water Type Delivered (acre–feet)				Total SWP Deliveries (acre–feet)
		Table A	Article 21	Carryover	Turnback	
Feather River Area	Butte County	2,596	-	-	-	2,596
	Plumas County FCWCD	251	-	-	-	251
	Yuba City	96	-	4,085	-	4,181
	Subtotal	2,943	-	4,085	-	7,028
North Bay Area	Napa County FCWCD	41	1,444	9,731	-	11,216
	Solano County WA	450	-	9,231	-	9,681
	Subtotal	491	1,444	18,962	-	20,897
South Bay Area	Alameda County FCWCD, Zone 7	1,367	-	17,609	-	18,976
	Alameda County WD	-	-	10,326	-	10,326
	Santa Clara Valley WD	-	-	12,339	79	12,418
	Subtotal	1,367	-	40,274	79	41,720
San Joaquin Valley Area	Dudley Ridge WD	1,783	-	15,783	40	17,606
	Empire West Side ID	104	-	349	-	453
	Kern County WA	1,393	-	24,717	520	26,630
	Kings County	112	-	360	-	472
	Oak Flat WD	-	-	983	-	983
	Tulare Lake Basin WSD	3,942	-	3,181	-	7,123
	Subtotal	7,334	-	45,373	560	53,267
Central Coastal Area	San Luis Obispo County FCWCD	379	-	2,693	-	3,072
	Santa Barbara County FCWCD	289	-	10,533	-	10,822
	Subtotal	668	-	13,226	-	13,894
Southern California Area	Antelope Valley–East Kern WA	2,186	-	12,213	111	14,510
	Castaic Lake WA	451	-	7,743	-	8,194
	Coachella Valley WD	6,918	-	-	-	6,918
	Crestline–Lake Arrowhead WA	83	-	658	-	741
	Desert WA	2,788	-	-	-	2,788
	Littlerock Creek ID	115	-	-	-	115
	Metropolitan WD of Southern California	59,909	-	223,358	-	283,267
	Mojave WA	3,347	-	2,228	-	5,575
	Palmdale WD	1,005	-	3,670	-	4,675
	San Bernardino Valley MWD	-	-	6,452	-	6,452
	San Gabriel Valley MWD	1,434	-	-	-	1,434
	San Geronio Pass WA	603	-	4,572	-	5,175
	Ventura County WPD	93	-	-	-	93
	Subtotal	78,932	-	260,894	111	339,937
TOTAL SWP DELIVERIES		91,735	1,444	382,814	750	476,743

Final Appendices The State Water Project Delivery Capability Report 2015

July 2015

**State of California
Natural Resources Agency
Department of Water Resources**



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Appendix F: Alternative 4 H3 Scenario

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Appendix A:

2015 DCR Alternative Studies

Assumptions

Introduction

This appendix briefly introduces and compares the assumptions for the 2015 Delivery Capability Report (DCR) Base scenario and the following alternatives:

- Early Long-Term (ELT)
- Existing Conveyance High Outflow (ECHO)
- Existing Conveyance Low Outflow (ECLO)
- Bay-Delta Conservation Plan (BDCP) Alternative 4 H3 study (Alt 4)

Overview of Model Assumptions

2015 Delivery Capability Report (DCR) – Base scenario

Many of the model assumptions developed for the 2013 Delivery Reliability Report (DRR) simulations were also used for the 2015 Delivery Capability Report (DCR) report update, with exceptions noted below. A full discussion of the assumptions can be found in the 2009 DRR update at: <http://baydeltaoffice.water.ca.gov/swpreliability/Reliability2010final101210.pdf>

The 2015 DCR Base study includes the following updates:

1) Level of Development

- Land use information for the existing condition of the 2015 DCR base study represents a 2030 level of development. In 2013 DRR existing condition study, land use information represented a 2005 level of development.

2) Central Valley Project (CVP) Operations

- Folsom storage has adopted bathymetric data generated by a 2005 sedimentation study conducted at Folsom Lake.
- Folsom capacity lowered from 975 to 967 TAF.
- Folsom storage levels adjusted to implement variable 400/670 flood control envelope.

3) Vernalis Adaptive Management Program (VAMP)

- The VAMP, which was developed to protect migrating juvenile Chinook salmon through a combination of pulse flows and Delta export reduction, is considered to have expired and is not included in this model.

4) American River

- Re-implementation of Hodge flow limitations on City of Sacramento diversions from American River at Fairbairn.
- Updated implementation of the Fishery Management Program.

5) Feather River Service Area Rice Decomposition

- Dynamically calculated Feather River Service Area Rice Decomposition Demands.

6) East Bay Municipal Utility District (EBMUD)

- Allocation and Cumulative year-based (i.e. dynamically calculated) diversion limits for EBMUD have been removed and replaced with a static time series.

7) San Joaquin River System

- Updated Tuolumne River, New Don Pedro operations.

8) SWP Allocations

- Implementation of SWP settlement allocation adjustments (Yuba, Napa, Solano, and Butte).

9) Water Supply Index/Delivery Index (WSI-DI)

- Revised WSI-DI Curve generation procedure. This modification is described in details on page B-5 of Appendix B.

Early Long-Term (ELT)

All the model assumptions and updates developed for the 2015 DCR simulation base scenario were also used for the ELT Scenario. In addition, this scenario assumes a 2025 emission level and 15 cm sea level rise. The assumptions specific to the ELT scenario are described in *Public Draft BDCP Appendix 5A-2 – Climate Change Approach and Implications for Aquatic Species*, which can be accessed through the following link:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Appendix_5A_-_2_-_Climate_Change_Approach_and_Implications_for_Aquatic_Species.sflb.ashx

Existing Conveyance High Outflow (ECHO)

The 2015 DCR ECHO study was based on the ELT study mentioned above. Detailed descriptions of the ECHO Scenario assumptions are located in Chapter 9 (*Alternatives to Take*) and Appendix 9.A (*Economic Benefits of the BDCP and Take Alternatives*) of the Bay Delta Conservation Plan Draft EIR/EIS from November 2013, which can be accessed through the following links, respectively:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Chapter_9_-_Alternatives_to_Take.sflb.ashx

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Appendix_9A_-_Economic_Benefits_of_the_BDCP_and_Take_Alternatives.sflb.ashx

The ECHO Scenario includes the following assumptions:

- Operation of existing south of Delta conveyance facilities without BDCP
- South Delta operating restrictions (Scenario 6)
- Fall X2 and enhanced spring outflow requirements
- Early Long-Term climate change conditions (2025) with sea level rise of 15 cm

Existing Conveyance Low Outflow (ECLO)

Existing Conveyance Low Outflow scenario is similar to the ECHO scenario except it assumes no Fall X2 and no enhanced spring outflow requirements.

Chapter 9 of the Bay Delta Conservation Plan Draft EIR/EIS introduces a similar scenario as described above. This scenario is called the Existing Conveyance High Outflow which in addition it has Fall X2 and additional spring outflow.

Bay-Delta Conservation Plan Alternative 4 H3 study (Alt 4)

The 2015 DCR Alt 4 study presented here is created by merging the existing conditions base study (featured in the 2015 DCR main report) with assumptions for ELT climate change and BDCP Alternative 4. The assumptions specific to BDCP Alternative 4 are described in *Public Draft BDCP EIR/EIS Chapter 3 – Description of Alternatives*, which can be accessed through the following link:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_EIR-EIS_Chapter_3_-_Description_of_Alternatives.sflb.ashx

The system-wide CalSim II modeling assumptions are presented in Table F.1 of this section, with details in provided in their respective endnotes. Within those overall modeling assumptions, those specific to Alternative 4 H3 are summarized here:

- Early Long-Term climate change conditions (2025) with sea level rise of 15 cm
- Isolated facility with 9,000 cfs diversion capacity near Hood
- North and south Delta intakes operation criteria
- Modified Fremont Weir, control gates and Yolo Bypass inundation criteria
- Additional criteria for Rio Vista minimum flows
- South Delta operating restrictions (Scenario 6)
- Increased Banks permitted capacity to 10,300 cfs
- BDCP operation scenario H3, which excludes Enhanced Spring Outflow and includes Fall X2

CalSim II Modeling Assumptions

Table A.1. 2015 DCR Base and alternative studies assumptions

	Base	ELT	ECHO	ECLO	Alt 4
Planning Horizon	2015	2025	Same as ELT	Same as ELT	Same as ELT
Period of Simulation	82 years (1922-2003)	Same as Base	Same as Base	Same as Base	Same as Base
HYDROLOGY					
Level of Development (land use)	2030 Level ²	Same as Base	Same as Base	Same as Base	Same as Base
Climate Change	No CC	ELT (2025 emission level + 15 cm SLR)	Same as ELT	Same as ELT	Same as ELT
Natural Community Protection and Restoration Conservation Measures	None	Same as Base	Same as Base	Same as Base	25,000 acres
DEMANDS					
North of Delta (excluding the American River)					
CVP	Land-use based, full build-out of contract amounts ³	Same as Base	Same as Base	Same as Base	Same as Base
SWP (FRSA)	Land-use based, limited by contract amounts ^{4, 7}	Same as Base	Same as Base	Same as Base	Same as Base
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities	Same as Base	Same as Base	Same as Base	Same as Base
Antioch Water Works	Pre-1914 water right	Same as Base	Same as Base	Same as Base	Same as Base
Federal refuges	Firm Level 2 water needs ⁵	Same as Base	Same as Base	Same as Base	Same as Base
American River Basin					
Water rights	Year 2025, full water rights ⁶	Same as Base	Same as Base	Same as Base	Same as Base
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
San Joaquin River Basin⁸					
Friant Unit	Limited by contract amounts, based on current allocation policy	Same as Base	Same as Base	Same as Base	Same as Base
Lower basin	Land-use based, based on district level operations and constraints	Same as Base	Same as Base	Same as Base	Same as Base
Stanislaus River basin ^{9, 17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index	Same as Base	Same as Base	Same as Base	Same as Base
South of Delta					
CVP	Demand based on contract amounts ³	Same as Base	Same as Base	Same as Base	Same as Base
Federal refuges	Firm Level 2 water needs ⁵	Same as Base	Same as Base	Same as Base	Same as Base
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰	Same as Base	Same as Base	Same as Base	Same as Base
SWP ^{4, 11}	Demand based on full Table A amounts (4.13 MAF/year)	Same as Base	Same as Base	Same as Base	Same as Base
Article 56	Based on 2001-2008 contractor requests	Same as Base	Same as Base	Same as Base	Same as Base
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity	Same as Base	Same as Base	Same as Base	Same as Base
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
FACILITIES					
System-wide	Existing facilities	Same as Base	Same as Base	Same as Base	Existing facilities and Isolated Facility
Isolated Facility	None	None	None	None	North Delta Diversion: maximum capacity of 9,000 cfs, diversion point near Hood
Sacramento Valley					
Shasta Lake	Existing, 4,552 TAF capacity	Same as Base	Same as Base	Same as Base	Same as Base
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place	Same as Base	Same as Base	Same as Base	Same as Base
Colusa Basin	Existing conveyance and storage facilities	Same as Base	Same as Base	Same as Base	Same as Base
Lower American River	Hodge criteria for diversion at Fairbairn	Same as Base	Same as Base	Same as Base	Same as Base
Upper American River	PCWA American River pump station	Same as Base	Same as Base	Same as Base	Same as Base
Lower Sacramento River	Freeport Regional Water Project	Same as Base	Same as Base	Same as Base	Same as Base
Fremont Weir	Existing Weir	Same as Base	Same as Base	Same as Base	Modified Fremont Weir and control gates ²²
Delta Export Conveyance					
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs, permitted capacity is 6,680 cfs in all months and up to 8,500 cfs during Dec 15 th - Mar 15 th depending on Vernalis flow conditions ¹⁸ ; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul-Sep for reducing impact	Same as Base	Same as Base	Same as Base	Allowed to pump up to the physical capacity (10,300 cfs)

	Base	ELT	ECHO	ECLO	Alt 4
	of NMFS BO (Jun 2009) Action IV.2.1 ¹⁷ on SWP ¹⁹				
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)	Same as Base	Same as Base	Same as Base	Same as Base
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie	Same as Base	Same as Base	Same as Base	Same as Base
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³	Same as Base	Same as Base	Same as Base	Same as Base
San Joaquin River					
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity	Same as Base	Same as Base	Same as Base	Same as Base
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity	Same as Base	Same as Base	Same as Base	Same as Base
South of Delta (CVP/SWP project facilities)					
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point	Same as Base	Same as Base	Same as Base	Same as Base
California Aqueduct East Branch	Existing capacity	Same as Base	Same as Base	Same as Base	Same as Base
REGULATORY STANDARDS					
Trinity River					
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)	Same as Base	Same as Base	Same as Base	Same as Base
Trinity Reservoir end-of-September minimum	Trinity EIS Preferred Alternative (600 TAF/yr as able)	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
storage					
Clear Creek					
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
Upper Sacramento River					
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
Feather River					
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)	Same as Base	Same as Base	Same as Base	Same as Base
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)	Same as Base	Same as Base	Same as Base	Same as Base
Yuba River					
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴	Same as Base	Same as Base	Same as Base	Same as Base
American River					
Minimum flow below Nimbus	American River Flow Management as required by NMFS BO (Jun 2009)	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
Dam	Action II.1 ¹⁷				
Minimum flow at H Street Bridge	SWRCB D-893	Same as Base	Same as Base	Same as Base	Same as Base
Lower Sacramento River					
Minimum flow near Rio Vista	SWRCB D-1641	Same as Base	Same as Base	Same as Base	Sep-Dec: SWRCB D-1641; Jan-Aug: minimum of 3,000 cfs
Mokelumne River					
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100–325 cfs)	Same as Base	Same as Base	Same as Base	Same as Base
Minimum flow below Woodbridge Diversion Dam	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement Agreement) (25–300 cfs)	Same as Base	Same as Base	Same as Base	Same as Base
Stanislaus River					
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
Minimum dissolved oxygen	SWRCB D-1422	Same as Base	Same as Base	Same as Base	Same as Base
Merced River					
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180–220 cfs, Nov–Mar), and Cowell Agreement	Same as Base	Same as Base	Same as Base	Same as Base
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25–100 cfs)	Same as Base	Same as Base	Same as Base	Same as Base
Tuolumne River					
Minimum flow at Lagrange	Federal Energy Regulatory Commission 2299-024, 1995	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
Bridge	(Settlement Agreement) (94–301 TAF/yr)				
Updated Tuolumne River	New Don Pedro operations	Same as Base	Same as Base	Same as Base	Same as Base
San Joaquin River					
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows	Same as Base	Same as Base	Same as Base	Same as Base
Maximum salinity near Vernalis	SWRCB D-1641	Same as Base	Same as Base	Same as Base	Same as Base
Minimum flow near Vernalis	SWRCB D1641. VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water	Same as Base	Same as Base	Same as Base	Same as Base
Sacramento-San Joaquin Delta					
North Delta Diversion Bypass Flow	None	Same as Base	Same as Base	Same as Base	BDCP Criteria for North Delta Bypass Flows ²³
Delta Outflow Index (flow and salinity)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷	Same as Base	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷ and additional flow for the enhanced spring (Mar – May) outflow requirement ²⁴	Excludes FWS BO Fall X2 Outflow Requirements	Same as Base
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹	Same as Base	Same as Base	Same as Base	Same as Base
Combined Flow in Old and Middle River (OMR)	FWS BO (Dec 2008) Actions 1-3 and NMFS BO (Jun 2009) Action IV.2.3 ¹⁷	Same as Base	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{25, 26}	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{25, 26}	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{25, 26}
OPERATIONS CRITERIA: RIVER-SPECIFIC					
Upper Sacramento River					
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250–5,000 cfs based on CVP water supply condition	Same as Base	Same as Base	Same as Base	Same as Base
American River					
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)	Same as Base	Same as Base	Same as Base	Same as Base
Feather River					
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr-Sep dependent on Oroville inflow and FRSA allocation	Same as Base	Same as Base	Same as Base	Same as Base
Stanislaus River					
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
San Joaquin River					
Salinity at Vernalis	Grasslands Bypass Project (full implementation)	Same as Base	Same as Base	Same as Base	Same as Base
OPERATIONS CRITERIA: SYSTEMWIDE					
North and South Delta Intakes					
Water quality and residence	None	Same as Base	Same as Base	Same as Base	Jul-Sep: prefer south Delta

	Base	ELT	ECHO	ECLO	Alt 4
time					pumping up to 3,000 cfs before diverting from North. Oct-Jun: prefer North Delta pumping (real-time operation flexibility)
CVP Water Allocation					
CVP settlement and exchange	100% (75% in Shasta critical years)	Same as Base	Same as Base	Same as Base	Same as Base
CVP refuges	100% (75% in Shasta critical years)	Same as Base	Same as Base	Same as Base	Same as Base
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
SWP Water Allocation					
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵	Same as Base	Same as Base	Same as Base	Same as Base
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
CVP/SWP Coordinated Operations					
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)	Same as Base	Same as Base	Same as Base	Same as Base
Sharing of surplus flows	1986 Coordinated Operations Agreement	Same as Base	Same as Base	Same as Base	Same as Base
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷	Same as Base	Same as Base	Same as Base	Same as Base
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹	Same as Base	Same as Base	Same as Base	Same as Base
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)	Same as Base	Same as Base	Same as Base	Same as Base
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF	Same as Base	Same as Base	Same as Base	Same as Base
CVPIA 3406(b)(2)					
Policy decision	Per May 2003 Department of Interior decision	Same as Base	Same as Base	Same as Base	Same as Base
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years	Same as Base	Same as Base	Same as Base	Same as Base
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish	Same as Base	Same as Base	Same as Base	Same as Base

	Base	ELT	ECHO	ECLO	Alt 4
	flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO (Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷				
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting	Same as Base	Same as Base	Same as Base	Same as Base
WATER MANAGEMENT ACTIONS					
Water Transfer Supplies (long term programs)					
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP	Same as Base	Same as Base	Same as Base	Same as Base
Phase 8	None	Same as Base	Same as Base	Same as Base	Same as Base
Water Transfers (short term or temporary programs)					
Sacramento Valley acquisitions conveyed through Banks pp ²¹	Post analysis of available capacity	Same as Base	Same as Base	Same as Base	Same as Base

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.

- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.
- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.
- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.

¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.

²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.

²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.

²² Fremont Weir: Improve fish passage at existing weir elevation; construct opening and operable gates at elevation 17.5 feet with fish passage facilities; construct opening and operable gates at a smaller opening with fish passage at elevation 11.5 feet.

²³ Criteria North Delta Diversion Bypass Flows:

- **Constant Low-Level-Pumping:** Diversions up to 6% of river flow for flows greater than 5,000 cfs (No diversion if it would cause downstream flow less than 5,000 cfs). No more than 300 cfs at any one intake.
- **Initial Pulse Protection:** Low level pumping maintained through the initial pulse period. For the purpose of monitoring, the initiation of the pulse is defined by the following criteria: (1) Wilkins Slough flow changing by more than 45% over a five day period and (2) flow greater than 12,000 cfs. Low-level pumping continues until (1) Wilkins Slough returns to prepulse flows (flow on first day of 5-day increase), (2) Wilkins Slough flows decrease for 5 consecutive days, or (3) Bypass flows are greater than 20,000 cfs for 10 consecutive days. After pulse period has ended, operations will return to the bypass flow table (SubTable A). If the first flush begins before Dec 1, a second pulse period will have the same protective operation.
- **Post-Pulse Operations:** After initial pulse(s), apply Level I post-pulse bypass rule (see SubTable A) until 15 total days of bypass flows above 20,000 cfs. Then apply Level II post-pulse bypass rule until 30 total days of bypass flows above 20,000 cfs. Then apply Level III post-pulse bypass rule.

²⁴ Enhanced Spring Delta Outflow required during the Mar-May period. This additional Mar-May Delta Outflow requirement is determined based on a forecasted Mar-May Eight River Index (8RI). For modeling purposes the Mar-May 8RI was forecasted based on a correlation between the actual Jan-Feb 8RI and actual Mar-May 8RI. Each year in March, Spring Delta Outflow target for the Mar-May period is determined based on the forecasted Mar-May 8RI value and its exceedance probability from the schedule below, linearly interpolating for values in-between. This additional spring outflow is not considered as an "in-basin use" for CVP-SWP Coordinated Operations. This outflow requirement is met through first by curtailing Delta exports at Banks and Jones Pumping Plants by an amount needed to meet the outflow target, such that the minimum exports are at least 1,500 cfs. In wetter years (< 50% exceedance), if the outflow target is not achieved by export curtailments, then the additional flow needed to meet the outflow target is released from the Oroville reservoir as long as its projected end-of-May storage is at or above 2 MAF. Only acquisitions of Lower Yuba River Accord Component 1 water are included. Percent exceedance of forecasted Mar-May 8RI base on Jan-Feb 8RI values and corresponding proposed Mar-May Delta outflow target: 10%(44,500 cfs); 20%(44,500 cfs); 30%(35,000 cfs); 40%(32,000 cfs); 50%(23,000 cfs); 60%(17,200 cfs); 70%(13,300); 80%(11,400 cfs); 90%(9,200 cfs).

²⁵ Scenario 6 OMR Operations. Jan: 0 (W), -3500 (AN), -4000 (BN), -5000 (D, C); Feb: 0 (W), -3500 (AN), -4000 (BN, D, C); Mar: 0 (W, AN), -3500 (AN, BN, D, C); Apr - Jun: Varies based on San Joaquin inflow relationship to OMR; Jul - Sep: No Restrictions; Oct - Nov: Varies based SJR pulse flow condition; Dec: -5000 when north Delta initial pulse flows are triggered or -2000 when delta smelt action 1 triggers; HORB opening is restricted

²⁶ BDCP Scenario 6 represents a set of proposed operations, which include operating criteria for North Delta diversion bypass flows, South Delta channel flows, HORB operations, Fremont Weir/Yolo Bypass inundation, DCC Gate operations, Rio Vista minimum flows, Water Quality and Residence Time and Ag/M&I water quality requirements. The ECLO and ECHO studies adopt some Scenario 6 operating criteria for South Delta Operating Restrictions, primarily regarding OMR flows and HORB.

Key:

ACOE = Army Corps of Engineers

Ag = agricultural

BDCP = Bay-Delta Conservation Plan

BO = Biological Opinion

CALFED = CALFED Bay-Delta Program

CCWD = Contra Costa Water District

cfs = cubic feet per second

CVP = Central Valley Project

CVPIA = Central Valley Project Improvement Act

D-xxxx = Water Right Decision

DFG = California Department of Fish and Game

DMC = Delta-Mendota canal

DWR = California Department of Water Resources

EBMUD = East Bay Municipal Utility District

EIS = Environmental Impact Statement

ELT = Early Long-Term

FC&WSD = Flood Control and Water Service District

FERC = Federal Energy Regulatory Commission

FRSA = Feather River Service Area

FRWP = Freeport Regional Water Project

FWS = Fish and Wildlife Service

KCWA = Kern County Water Agency

LOD = Level of Development

LYRA = Lower Yuba River Accord

MAF/yr = million acre-feet per year

M&I = municipal and industrial

MWD = Metropolitan Water District

NAA = No Action Alternative

NEPA = National Environmental Policy Act

NMFS = National Marine Fisheries Service

NPS = National Park Service

PCWA = Placer County Water Agency

PP = Pumping Plant

Reclamation = United States Department of the Interior, Bureau of Reclamation

ROD = Record of Decision

SBA = South Bay Aqueduct

SLR = Sea Level Rise

SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year



Appendix B:

Existing Conditions Scenario

Introduction

This appendix is a supplemental document to the Delivery Capability Report (DCR) of 2015. This document presents a brief description of the model assumptions, updates, and State Water Project (SWP) contractor deliveries. The following items are discussed:

- Model input data
 - Article 21 demands
 - Table A amounts and Article 56 carryover
- Model updates
- Model assumptions
- Simulation results
 - Annual delivery for Table A, Article 56, and Article 21
 - SWP contractor annual deliveries

Model Input Data

Article 21 Demands – Existing Conditions

The Article 21 demands used in the 2015 SWP Delivery Capability Report (DCR) are shown in Tables B.1 and B.2. These demands are identical to those used in the 2013 DRR Report. Table B.1 shows the demand patterns that were assumed during normal hydrology conditions and Table B.2 shows the patterns that were used during Kern wet years. A Kern wet year is defined as a year when the annual Kern River flow is greater than 1,500 TAF. There are nine Kern wet years in the simulation period of 1922 – 2003 (1941, 1952, 1969, 1978, 1980, 1983, 1986, 1995, and 1998).

Table B.1. 2015 DCR Article 21 Demands in Normal Years¹

Month	Kern County Water Agency Ag (TAF)	Other Ag (TAF)	Metropolitan Water District M&I (TAF)	North Bay Aqueduct M&I (TAF)	Other M&I (TAF)	Total (TAF)
Oct	0	0	0	2	0	2
Nov	180	18	0	2	14	214
Dec	180	18	200	2	14	414
Jan	180	18	200	2	14	414
Feb	180	18	200	2	14	414
Mar	180	18	200	2	14	414
Apr	180	18	0	2	14	214
May	180	18	0	2	14	214
Jun	180	18	0	2	14	214
Jul	0	0	0	2	0	2
Aug	0	0	0	2	0	2
Sep	0	0	0	2	0	2

1. Values shown are the maximum amount that can be taken monthly. However, the actual capability of SWP water contractors to take this amount of Article 21 is not the sum of these maximum monthly values.

Table B.2. 2015 DCR Article 21 Demands in Kern Wet Years¹

Month	Kern County Water Agency Ag (TAF)	Other Ag (TAF)	Metropolitan Water District M&I (TAF)	North Bay Aqueduct M&I (TAF)	Other M&I (TAF)	Total (TAF)
Oct	0	0	0	2	0	2
Nov	0	0	0	2	0	2
Dec	0	0	200	2	0	202
Jan	0	0	200	2	0	202
Feb	0	0	200	2	0	202
Mar	0	0	200	2	0	202
Apr	0	0	0	2	0	2
May	0	0	0	2	0	2
Jun	0	0	0	2	0	2
Jul	0	0	0	2	0	2
Aug	0	0	0	2	0	2
Sep	0	0	0	2	0	2

1. Values shown are the maximum amount that can be taken monthly. However, the actual capability of SWP water contractors to take this amount of Article 21 is not the sum of these maximum monthly values.

Table A Amounts and Article 56 Carryover

The State Water Contractors' Article 56 carryover storage used in the 2015 DCR is shown in Table B.3. This data is identical to that used in the 2013 DRR Report. The Table A amounts (listed in Table B.3) for the 2015 DCR reflect the maximum Table A amounts for the contractors.

Table B.3. 2015 DCR Table A Demand and Article 56 Carryover (Existing Conditions)

Contractor Name	Table A amount (TAF)	Table A request for given demand level (TAF)			Article 56 request for given demand level (TAF)		
		100%	50%	30%	100%	50%	30%
ALAMEDA COUNTY FC&WCD-ZONE 7	80.62	78.40	38.09	24.19	2.22	2.22	
ALAMEDA COUNTY WD	42.00	42.00	21.00	12.60			
ANTELOPE VALLEY-EAST KERN WA	141.40	141.40	70.70	42.42			
CASTAIC LAKE WA - AG	12.70	12.70	6.35	3.81			
CITY OF YUBA CITY	9.60	9.60	4.80	2.88			
COACHELLA VALLEY WD	138.35	128.45	69.18	41.51	9.90		
COUNTY OF BUTTE	27.50	27.50	13.75	8.25			
COUNTY OF KINGS	9.31	9.31	4.66	2.79			
CRESTLINE-LAKE ARROWHEAD WA	5.80	5.80	2.90	1.74			
DESERT WA	55.75	43.85	27.88	16.73	11.90		
DUDLEY RIDGE WD	50.34	50.34	25.17	15.10			
EMPIRE WEST SIDE ID	2.00	2.00	1.00	0.60			
KERN COUNTY WA - AG	848.13	848.13	424.07	254.44			
LITTLEROCK CREEK ID	2.30	2.30	1.15	0.69			
METROPOLITAN WDSC	1,911.50	1,711.50	955.75	573.45	200.00		
MOJAVE WA	82.80	82.80	41.40	24.84			
NAPA COUNTY FC&WCD	29.03	29.03	14.52	8.71			
OAK FLAT WD	5.70	5.70	2.85	1.71			
PALMDALE WD	21.30	21.30	10.65	6.39			
SAN BERNARDINO VALLEY MWD	102.60	91.20	51.30	30.78	11.40		
SAN GABRIEL VALLEY MWD	28.80	28.80	14.40	8.64			
SAN GORGONIO PASS WA	17.30	17.30	8.65	5.19			
SAN LUIS OBISPO COUNTY FC&WCD	25.00	25.00	12.50	7.50			
SANTA BARBARA COUNTY FC&WCD	45.49	45.49	22.75	13.65			
SANTA CLARA VALLEY WD	100.00	100.00	50.00	30.00			
SOLANO COUNTY WA	47.51	47.51	23.76	14.25			
TULARE LAKE BASIN WSD	88.92	88.92	44.46	26.68			
VENTURA COUNTY WPD	20.00	20.00	10.00	6.00			
KERN COUNTY WA - MI	134.60	134.60	67.30	40.38			
CASTAIC LAKE WA - MI	82.50	82.50	41.25	24.75			
Total	4,168.85	3,933.43	2,082.24	1,250.67	235.42	2.22	0.00

Updates in Model Assumptions

Overview of Model Assumptions

Many of the model assumptions developed for the 2013 Delivery Reliability Report (DRR) simulations were also used for the 2015 Delivery Capability Report (DCR) report update, with exceptions noted below. A full discussion of the assumptions can be found in the 2009 DRR update at: <http://baydeltaoffice.water.ca.gov/swpreliability/Reliability2010final101210.pdf>

The 2015 DCR Base study includes the following updates:

1) Level of Development

- Land use information for the existing condition of the 2015 DCR base study represents a 2030 level of development. In 2013 DRR existing condition study, land use information represented a 2005 level of development.

2) Central Valley Project (CVP) Operations

- Folsom storage has adopted bathymetric data generated by a 2005 sedimentation study conducted at Folsom Lake
- Folsom capacity lowered from 975 to 967 TAF.
- Folsom storage levels adjusted to implement variable 400/670 flood control envelope.

3) Vernalis Adaptive Management Program (VAMP)

- VAMP, which was developed to protect migrating juvenile Chinook salmon through a combination of pulse flows and Delta export reduction, is considered to have expired and is not included in this model.

4) American River

- Re-implementation of Hodge flow limitations on City of Sacramento diversions from American River at Fairbairn.
- Updated implementation of the Fishery Management Program.

5) Feather River Service Area Rice Decomposition

- Dynamically calculated Feather River Service Area Rice Decomposition Demands.

6) East Bay Municipal Utility District (EBMUD)

- Allocation and Cumulative year-based (i.e. dynamically calculated) diversion limits for EBMUD have been removed and replaced with a static time series.

7) San Joaquin River System

- Updated Tuolumne River, New Don Pedro operations.

8) SWP Allocations

- Implementation of SWP settlement allocation adjustments (Yuba, Napa, Solano, Butte).

9) Water Supply Index/Delivery Index (WSI-DI)

- Revised WSI-DI Curve generation procedure (Brief discussion below).

The details of the code changes are available in a document included in the model package.

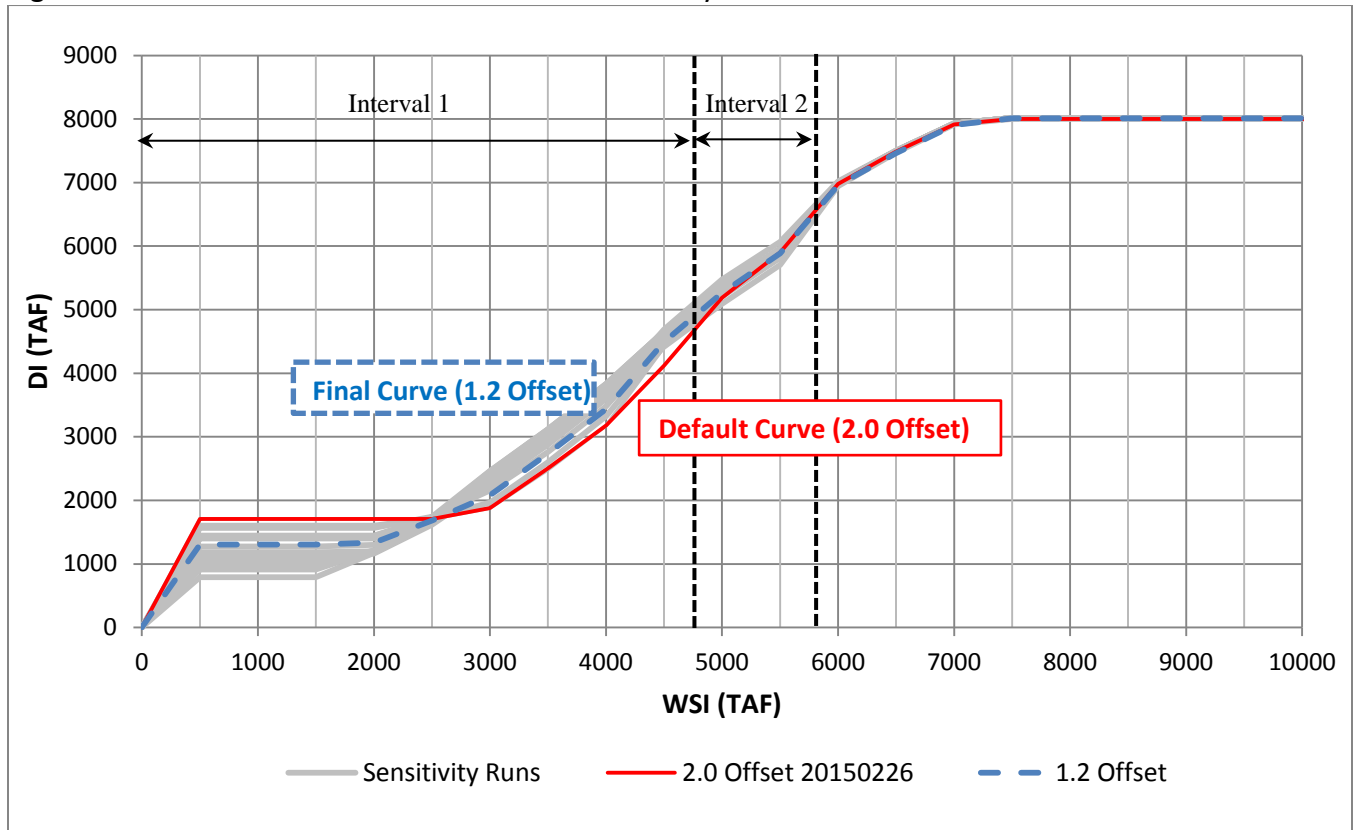
WSI-DI Curve Generator Offset Modification

The WSI-DI allocation method develops an allocation decision for system-wide CVP and SWP deliveries based on stored water, forecasts of usable inflow, and storage carryover targets. The allocations for the CVP Water Right, Exchange, and Settlement contractors and SWP Feather River Service Area contractors are dependent on reservoir inflow criteria. South-of-Delta delivery allocations for the CVP may be further adjusted based on water in CVP San Luis storage plus projections of available water for export prior to low point.

The WSI-DI curves in CalSim are generated through an iterative process facilitated by an automation script. There are parameters within this script which can be changed to shift (or “offset”) the slope of the curve to produce a more or less conservative curve profile. Both the magnitude and location of these slope shifts can be adjusted. For the 2015 DCR, these offsets have been modified from the 2013 DRR based on a sensitivity analysis to better utilize SWP San Luis reservoir storage during dry years. It is important to note that the parameters are subjective and are calibrated to best represent the system; the modification of these parameters should always be based on careful analysis and followed by thorough review.

The chart below shows the 1.2 offset curve used in the 2015 DCR base compared to the curve generated with the default 2.0 offset. The 1.2 offset curve exhibits a more conservative delivery for lower WSI values (i.e. drier years) and a slightly less conservative delivery from WSI values between 2500 and 4500 TAF. The results of these modifications are discussed in the following “Results” section.

Figure B.1. 20150226 DCR Base WSIDI curve sensitivity SWP



There are two intervals where the Delivery Index (DI) values can be adjusted. The exact location of these locations varies as a function of the minimum/maximum values of **WSI_ACTUAL** and **DI_ACTUAL** and will therefore vary slightly between studies. “Interval 2” was not modified – Water Supply Index (WSI) values in that interval are associated with wetter years, where system operations remained reasonable. The changes to each interval are summarized below for both the 2013 DRR and the 2015 DCR.

Table B.4. Offset values for 2013 DRR and 2015 DCR studies

	2013 DRR Offset	2015 DCR Offset
Interval 1	2	1.2
Interval 2	1	1

This offset coefficient was arrived at through a sensitivity analysis taking the following parameters into consideration: SWP Table A deliveries, SWP San Luis Storage, and delivery shortages during water years 1976-1977. With the default 2.0 offset coefficient for “interval 1”, SWP Table A deliveries in 1977 were unreasonably high because 1976 deliveries were too conservative – water was being stored in SWP San Luis instead of being delivered. Changing the offset coefficient to 1.2 allowed increased Table A

deliveries in 1976 – thereby decreasing 1977 deliveries to more reasonable levels – and better utilization of SWP San Luis Storage, all while keeping storage levels above deadpool. It is important to note that average 1976-1977 deliveries remained largely constant; deliveries were shifted from 1977 to 1976. Furthermore, the effect of the “interval 1” offset modification exhibited the most distinguished effect during drought periods and had a minimal effect on the overall, long-term, system operations.

Figure B.2. SWP San Luis Storage WY 76-77

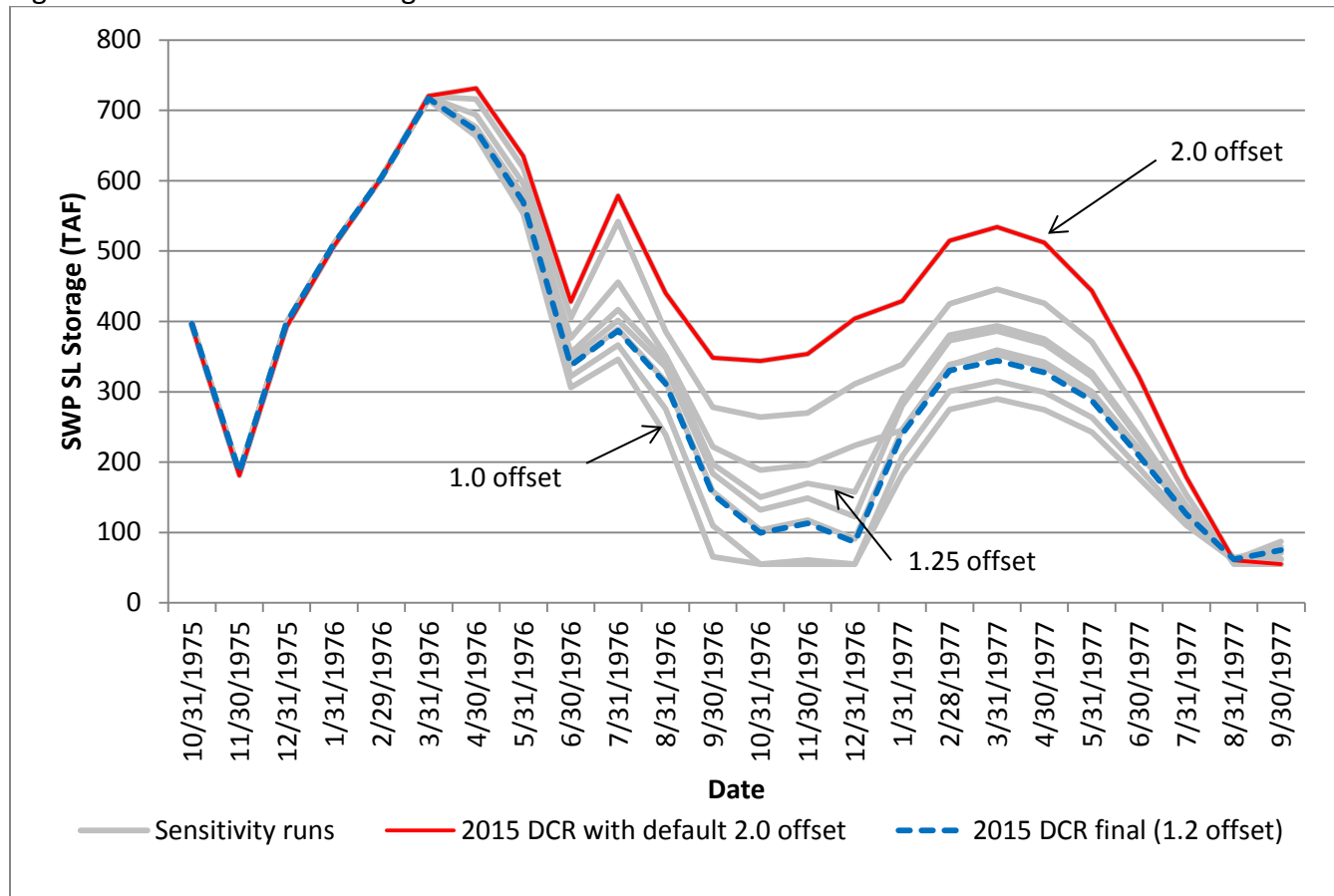
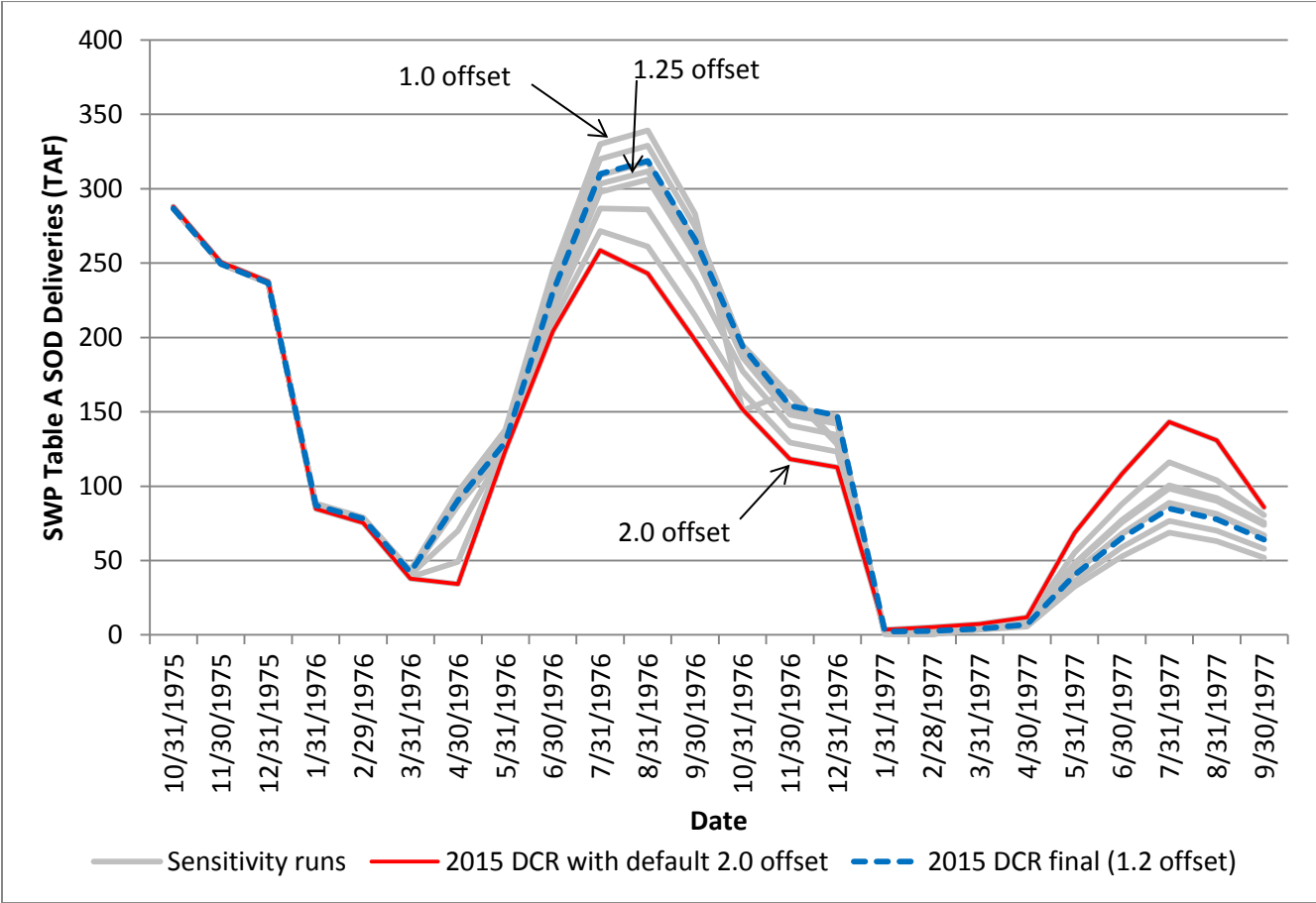


Figure B.3. Average SWP Table A SOD Deliveries WY 76-77



CalSim II Modeling Assumptions

Table B.5. CalSim II Modeling Assumptions for 2015 Delivery Capability Report

	Existing Condition ¹
Planning Horizon	2015
Period of Simulation	82 years (1922-2003)
HYDROLOGY	
Level of Development (land use)	2030 Level ²
DEMANDS	
North of Delta (excluding the American River)	
CVP	Land-use based, full build-out of contract amounts ³
SWP (FRSA)	Land-use based, limited by contract amounts ^{4, 7}
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities
Antioch Water Works	Pre-1914 water right
Federal refuges	Firm Level 2 water needs ⁵
American River Basin	
Water rights	Year 2025, full water rights ⁶
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶
San Joaquin River Basin⁸	
Friant Unit	Limited by contract amounts, based on current allocation policy
Lower basin	Land-use based, based on district level operations and constraints
Stanislaus River basin ^{9, 17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index
South of Delta	
CVP	Demand based on contract amounts ³
Federal refuges	Firm Level 2 water needs ⁵
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰
SWP ^{4, 11}	Demand based on full Table A amounts (4.13 MAF/yr)
Article 56	Based on 2001-2008 contractor requests
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵

	Existing Condition ¹
FACILITIES	
System-wide	Existing facilities
Sacramento Valley	
Shasta Lake	Existing, 4,552 TAF capacity
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place
Colusa Basin	Existing conveyance and storage facilities
Lower American River	Hodge criteria for diversion at Fairbairn
Upper American River	PCWA American River pump station
Lower Sacramento River	Freeport Regional Water Project
Fremont Weir	Existing Weir
Delta Export Conveyance	
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs, permitted capacity is 6,680 cfs in all months and up to 8,500 cfs during Dec 15 th - Mar 15 th depending on Vernalis flow conditions ¹⁸ ; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul-Sep for reducing impact of NMFS BO (Jun 2009) Action IV.2.1 ¹⁷ on SWP ¹⁹
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³
San Joaquin River	
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity
South of Delta (CVP/SWP project facilities)	
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point
California Aqueduct East Branch	Existing capacity
REGULATORY STANDARDS	
Trinity River	
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF/yr as able)

Existing Condition ¹	
Clear Creek	
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷
Upper Sacramento River	
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷
Feather River	
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)
Yuba River	
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴
American River	
Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1 ¹⁷
Minimum flow at H Street Bridge	SWRCB D-893
Lower Sacramento River	
Minimum flow near Rio Vista	SWRCB D-1641
Mokelumne River	
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100 – 325 cfs)
Minimum flow below Woodbridge Diversion Dam	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 cfs)
Stanislaus River	
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
Minimum dissolved oxygen	SWRCB D-1422

	Existing Condition ¹
Merced River	
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 cfs, Nov – Mar), and Cowell Agreement
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25 – 100 cfs)
Tuolumne River	
Minimum flow at Lagrange Bridge	Federal Energy Regulatory Commission 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/yr)
Updated Tuolumne River	New Don Pedro operations
San Joaquin River	
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows
Maximum salinity near Vernalis	SWRCB D-1641
Minimum flow near Vernalis	SWRCB D1641. VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water
Sacramento-San Joaquin Delta	
Delta Outflow Index (flow and salinity)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹
Combined Flow in Old and Middle River (OMR)	FWS BO (Dec 2008) Actions 1-3 and NMFS BO (Jun 2009) Action IV.2.3 ¹⁷
OPERATIONS CRITERIA: RIVER-SPECIFIC	
Upper Sacramento River	
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250 – 5,000 cfs based on CVP water supply condition
American River	
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)
Feather River	
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr - Sep dependent on Oroville inflow and FRSA allocation
Stanislaus River	
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷

Existing Condition ¹	
San Joaquin River	
Salinity at Vernalis	Grasslands Bypass Project (full implementation)
OPERATIONS CRITERIA: SYSTEMWIDE	
CVP Water Allocation	
CVP settlement and exchange	100% (75% in Shasta critical years)
CVP refuges	100% (75% in Shasta critical years)
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
SWP Water Allocation	
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
CVP/SWP Coordinated Operations	
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)
Sharing of surplus flows	1986 Coordinated Operations Agreement
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF
CVPIA 3406(b)(2)	
Policy decision	Per May 2003 Department of Interior decision
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO

	Existing Condition ¹
	(Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting
WATER MANAGEMENT ACTIONS	
Water Transfer Supplies (long term programs)	
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP
Phase 8	None
Water Transfers (short term or temporary programs)	
Sacramento Valley acquisitions conveyed through Banks PP ²¹	Post analysis of available capacity

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.
- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.

- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.
- ¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.
- ²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.
- ²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.

Key:

ACOE = Army Corps of Engineers
Ag = agricultural
BDCP = Bay-Delta Conservation Plan
BO = Biological Opinion
CALFED = CALFED Bay-Delta Program
CCWD = Contra Costa Water District
cfs = cubic feet per second
CVP = Central Valley Project
CVPIA = Central Valley Project Improvement Act
D-xxxx = Water Right Decision
DFG = California Department of Fish and Game
DMC = Delta-Mendota canal
DWR = California Department of Water Resources
EBMUD = East Bay Municipal Utility District
EIS = Environmental Impact Statement
FC&WSD = Flood Control and Water Service District
FERC = Federal Energy Regulatory Commission
FRSA = Feather River Service Area
FRWP = Freeport Regional Water Project
FWS = Fish and Wildlife Service
KCWA = Kern County Water Agency
LYRA = Lower Yuba River Accord
MAF/yr = million acre-feet per year
M&I = municipal and industrial
MWD = Metropolitan Water District
NAA = No Action Alternative
NEPA = National Environmental Policy Act
NMFS = National Marine Fisheries Service
NPS = National Park Service
PCWA = Placer County Water Agency
PP = Pumping Plant
Reclamation = United States Department of the Interior, Bureau of Reclamation
ROD = Record of Decision
SBA = South Bay Aqueduct
SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year

Simulation Results for Existing Conditions

The deliveries shown in this report, as with previous report updates, only include those State Water Contractors that rely on delivery of water from the Sacramento-San Joaquin Delta; therefore, State Water Contractors in the Feather River area and upstream (i.e., Butte County, Plumas County Flood Control and Water Conservation District, and Yuba City) are excluded from this analysis. This section of the appendix presents results for the Existing Conditions scenario.

SWP Table A Deliveries

Figure B.4 shows a comparison of SWP Table A delivery exceedence curves from the 2013 report update and the 2015 update. The Table A deliveries for State Water Contractors under Existing Conditions are shown in Table B.6 on the following page. The results for individual Contractor Table A deliveries are included at the end of this appendix.

Figure B.4. Comparison of SWP Table A delivery probability for Existing Conditions

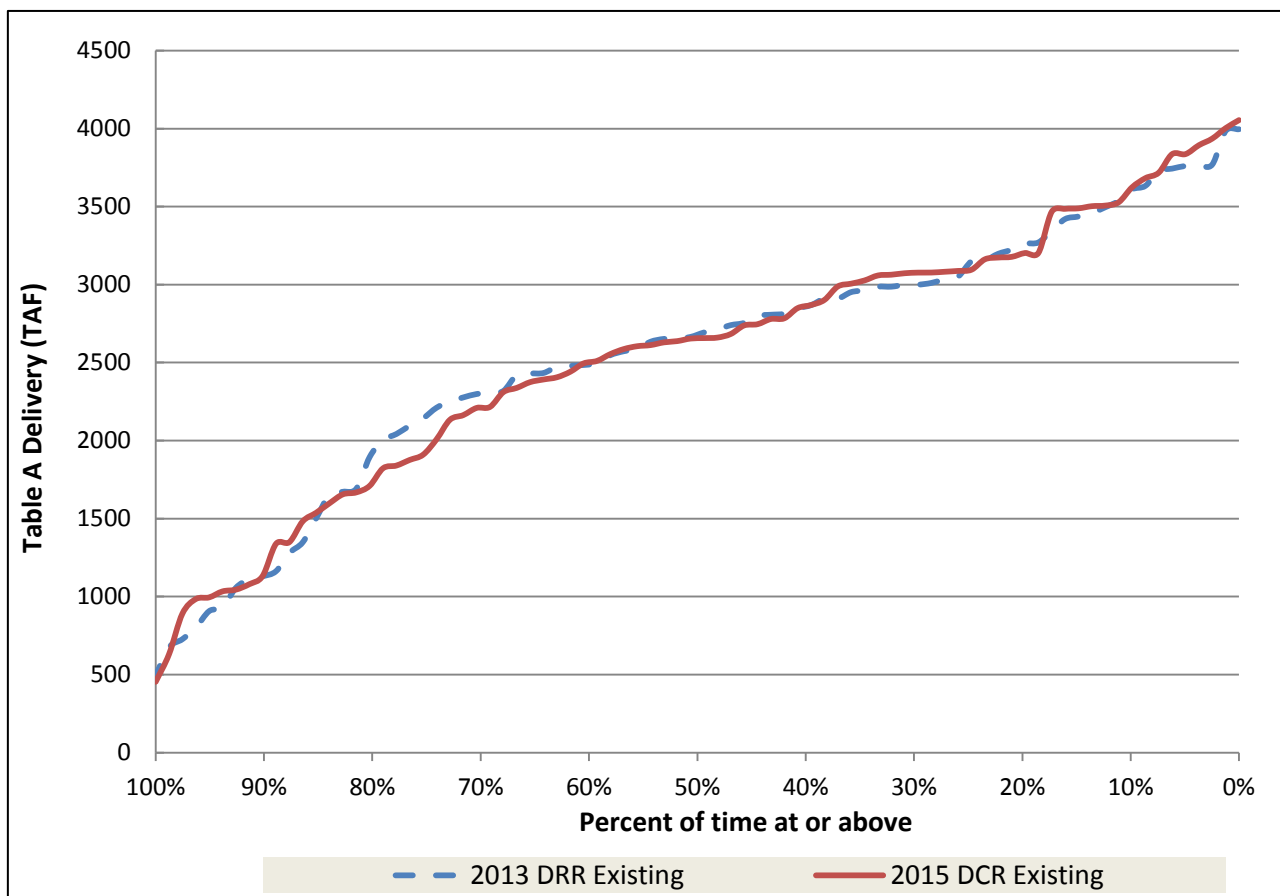


Table B.6. SWP Table A Deliveries for Existing Conditions

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1922	4,133	3,006	73%	1983	4,055	0%	98%
1923	4,133	2,746	66%	1938	4,003	1%	97%
1924	4,133	1,045	25%	1980	3,936	2%	95%
1925	4,133	1,710	41%	1967	3,894	4%	94%
1926	4,133	2,133	52%	1969	3,837	5%	93%
1927	4,133	2,738	66%	1982	3,837	6%	93%
1928	4,133	3,178	77%	1952	3,718	7%	90%
1929	4,133	1,132	27%	1958	3,683	9%	89%
1930	4,133	1,538	37%	1998	3,624	10%	88%
1931	4,133	1,339	32%	1986	3,528	11%	85%
1932	4,133	1,349	33%	1974	3,507	12%	85%
1933	4,133	1,656	40%	1941	3,503	14%	85%
1934	4,133	1,080	26%	1997	3,489	15%	84%
1935	4,133	2,660	64%	1943	3,486	16%	84%
1936	4,133	3,077	74%	1956	3,468	17%	84%
1937	4,133	3,073	74%	1970	3,203	19%	77%
1938	4,133	4,003	97%	1999	3,203	20%	77%
1939	4,133	2,216	54%	1928	3,178	21%	77%
1940	4,133	2,605	63%	1984	3,174	22%	77%
1941	4,133	3,503	85%	1978	3,162	23%	77%
1942	4,133	2,780	67%	1995	3,096	25%	75%
1943	4,133	3,486	84%	1979	3,088	26%	75%
1944	4,133	1,840	45%	1951	3,082	27%	75%
1945	4,133	2,902	70%	2000	3,077	28%	74%
1946	4,133	2,849	69%	1936	3,077	30%	74%
1947	4,133	2,375	57%	1937	3,073	31%	74%
1948	4,133	2,163	52%	1973	3,064	32%	74%
1949	4,133	1,599	39%	1985	3,059	33%	74%
1950	4,133	2,495	60%	1996	3,027	35%	73%
1951	4,133	3,082	75%	1922	3,006	36%	73%
1952	4,133	3,718	90%	1975	2,988	37%	72%
1953	4,133	2,784	67%	1945	2,902	38%	70%
1954	4,133	2,654	64%	1971	2,869	40%	69%
1955	4,133	1,823	44%	1946	2,849	41%	69%
1956	4,133	3,468	84%	1953	2,784	42%	67%
1957	4,133	2,511	61%	1942	2,780	43%	67%
1958	4,133	3,683	89%	1923	2,746	44%	66%
1959	4,133	2,392	58%	1927	2,738	46%	66%
1960	4,133	2,008	49%	1966	2,683	47%	65%
1961	4,133	1,668	40%	1935	2,660	48%	64%
1962	4,133	2,338	57%	1965	2,657	49%	64%
1963	4,133	2,638	64%	1954	2,654	51%	64%
1964	4,133	2,612	63%	1963	2,638	52%	64%

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1965	4,133	2,657	64%	1993	2,630	53%	64%
1966	4,133	2,683	65%	1964	2,612	54%	63%
1967	4,133	3,894	94%	1940	2,605	56%	63%
1968	4,133	2,441	59%	2003	2,587	57%	63%
1969	4,133	3,837	93%	1989	2,555	58%	62%
1970	4,133	3,203	77%	1957	2,511	59%	61%
1971	4,133	2,869	69%	1950	2,495	60%	60%
1972	4,133	2,311	56%	1968	2,441	62%	59%
1973	4,133	3,064	74%	1981	2,406	63%	58%
1974	4,133	3,507	85%	1959	2,392	64%	58%
1975	4,133	2,988	72%	1947	2,375	65%	57%
1976	4,133	1,876	45%	1962	2,338	67%	57%
1977	4,133	454	11%	1972	2,311	68%	56%
1978	4,133	3,162	77%	1939	2,216	69%	54%
1979	4,133	3,088	75%	2002	2,210	70%	53%
1980	4,133	3,936	95%	1948	2,163	72%	52%
1981	4,133	2,406	58%	1926	2,133	73%	52%
1982	4,133	3,837	93%	1960	2,008	74%	49%
1983	4,133	4,055	98%	1994	1,910	75%	46%
1984	4,133	3,174	77%	1976	1,876	77%	45%
1985	4,133	3,059	74%	1944	1,840	78%	45%
1986	4,133	3,528	85%	1955	1,823	79%	44%
1987	4,133	984	24%	1925	1,710	80%	41%
1988	4,133	891	22%	1961	1,668	81%	40%
1989	4,133	2,555	62%	1933	1,656	83%	40%
1990	4,133	1,034	25%	1949	1,599	84%	39%
1991	4,133	631	15%	1930	1,538	85%	37%
1992	4,133	995	24%	2001	1,483	86%	36%
1993	4,133	2,630	64%	1932	1,349	88%	33%
1994	4,133	1,910	46%	1931	1,339	89%	32%
1995	4,133	3,096	75%	1929	1,132	90%	27%
1996	4,133	3,027	73%	1934	1,080	91%	26%
1997	4,133	3,489	84%	1924	1,045	93%	25%
1998	4,133	3,624	88%	1990	1,034	94%	25%
1999	4,133	3,203	77%	1992	995	95%	24%
2000	4,133	3,077	74%	1987	984	96%	24%
2001	4,133	1,483	36%	1988	891	98%	22%
2002	4,133	2,210	53%	1991	631	99%	15%
2003	4,133	2,587	63%	1977	454	100%	11%
Average	4,133	2,550	62%	Average	2,550		62%
Minimum	4,133	454	11%	Minimum	454		11%
Maximum	4,133	4,055	98%	Maximum	4,055		98%

Article 21 Deliveries

Table B.7 below shows the State Water Contractors' Article 21 deliveries for the Existing Conditions scenario.

Table B.7. Article 21 Deliveries for Existing Conditions

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										0	0	2	2
1922	2	2	2	2	0	1	2	0	0	0	0	2	13
1923	2	0	2	2	1	1	2	0	0	0	0	0	11
1924	2	2	0	0	0	2	0	2	0	0	2	2	12
1925	2	2	2	2	2	0	0	2	0	2	0	2	16
1926	2	2	0	2	0	0	2	2	0	0	2	2	14
1927	2	2	2	2	0	0	0	0	0	0	0	2	10
1928	2	2	24	2	0	1	2	0	0	0	0	2	35
1929	2	2	2	2	0	0	0	2	0	0	0	2	12
1930	2	2	2	2	2	0	0	2	0	0	0	0	12
1931	2	2	2	0	0	0	0	2	0	0	0	2	10
1932	2	2	2	2	2	0	0	0	0	0	0	0	10
1933	2	37	86	2	2	0	0	2	0	0	0	2	133
1934	2	2	0	0	0	0	0	2	0	0	2	2	10
1935	2	2	2	2	1	0	0	0	0	0	0	0	9
1936	2	2	2	2	1	0	0	0	0	0	0	0	9
1937	2	23	339	2	1	0	0	0	0	0	2	2	371
1938	2	2	153	2	0	0	0	0	0	0	0	2	162
1939	2	2	2	0	2	2	2	0	0	0	0	0	12
1940	2	2	2	2	0	0	2	0	0	0	0	2	12
1941	2	2	2	2	0	0	0	0	0	0	0	2	10
1942	2	2	2	2	0	0	0	0	0	0	0	2	10
1943	2	2	2	2	0	0	2	0	0	0	0	2	12
1944	2	2	2	2	2	0	0	2	0	0	2	2	16
1945	2	2	89	2	1	0	0	0	0	0	2	2	100
1946	2	2	2	2	1	0	0	1	0	0	0	2	12
1947	2	2	2	2	2	0	0	2	0	0	0	2	14
1948	2	0	2	2	1	1	0	0	0	0	0	2	10
1949	2	2	2	2	2	0	0	2	0	0	0	0	12
1950	2	2	2	2	1	0	2	0	0	0	2	2	15
1951	197	237	230	2	0	1	2	0	0	0	0	2	671
1952	2	2	2	2	0	0	0	0	0	0	0	2	10
1953	2	2	2	2	0	0	0	0	0	0	0	2	10
1954	2	2	2	2	0	1	2	0	0	0	0	2	13
1955	2	2	2	2	2	2	0	2	0	2	2	2	20
1956	2	203	210	2	0	0	0	0	0	0	0	2	419
1957	2	2	2	2	0	1	2	0	0	0	0	2	13
1958	2	2	2	2	0	0	0	0	0	0	0	2	10
1959	2	2	2	2	0	1	2	0	0	0	0	2	13
1960	2	2	2	0	2	0	2	0	0	2	2	2	16
1961	2	2	2	0	2	1	0	2	0	2	2	2	17
1962	0	2	2	2	0	0	2	0	0	1	1	2	12
1963	2	2	2	2	0	0	2	0	0	0	0	2	12
1964	2	2	2	2	2	0	0	2	0	2	2	2	18

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1965	2	2	2	2	0	0	1	0	0	0	0	2	11
1966	2	2	2	2	0	0	2	0	0	0	2	2	14
1967	2	2	8	2	0	0	0	0	0	0	0	2	16
1968	2	2	2	2	1	1	2	0	0	0	2	2	17
1969	2	73	80	2	0	0	2	0	0	0	0	2	162
1970	2	2	2	2	0	0	2	0	0	0	0	2	12
1971	2	2	2	2	0	0	0	0	0	0	0	2	10
1972	2	2	2	2	1	1	2	0	0	0	2	2	17
1973	24	129	170	2	0	0	2	0	0	0	2	2	332
1974	2	2	2	2	0	0	0	0	0	0	0	2	10
1975	2	2	2	2	0	0	0	0	0	0	0	2	10
1976	2	2	2	2	0	2	2	2	0	0	2	0	16
1977	2	0	0	0	0	0	0	2	0	2	0	2	8
1978	2	2	2	2	0	0	0	0	0	0	0	2	10
1979	2	2	2	2	1	0	0	0	0	0	2	2	13
1980	2	24	79	2	0	0	0	0	0	0	0	2	109
1981	2	2	2	2	2	0	0	2	0	2	2	2	18
1982	2	2	2	82	0	0	0	0	0	0	2	2	92
1983	2	2	67	2	0	0	2	0	0	0	86	155	316
1984	166	245	231	2	0	0	2	0	0	0	2	2	650
1985	2	34	67	2	0	0	0	0	2	0	2	2	112
1986	2	2	2	2	0	0	0	0	0	0	0	0	8
1987	2	2	2	0	2	0	0	2	0	0	0	2	12
1988	2	0	0	2	0	0	0	2	0	0	2	2	10
1989	2	0	2	2	0	0	2	2	2	0	0	0	12
1990	2	2	2	0	2	0	0	2	0	2	2	2	16
1991	2	2	2	2	2	0	0	2	0	2	0	2	16
1992	2	2	2	2	0	0	0	2	0	2	0	2	14
1993	2	2	2	2	0	0	0	0	0	0	0	2	11
1994	2	2	2	2	2	2	0	2	0	2	0	2	18
1995	2	2	2	2	0	0	1	0	0	0	0	2	11
1996	2	2	2	2	0	0	0	0	0	0	0	2	10
1997	2	2	102	2	0	0	2	0	0	0	0	2	112
1998	2	2	2	2	0	0	2	0	0	0	2	2	14
1999	2	2	2	2	0	0	2	0	0	0	0	2	12
2000	2	2	2	2	0	0	2	0	0	0	0	2	12
2001	2	2	2	2	2	0	0	2	0	0	2	2	16
2002	2	2	2	2	2	0	0	2	0	2	0	2	16
2003	2	2	2	2	0	0	2	0	0				12
Average	7	14	25	3	1	0	1	1	0	0	2	4	56
Minimum	0	0	0	0	0	0	0	0	0	0	0	0	8
Maximum	197	245	339	82	2	2	2	2	2	2	86	155	671

SWP Exports from the Sacramento-San Joaquin Delta

Table B.8 below shows the SWP Exports from the Delta for the Existing Conditions scenario.

Table B.8. SWP Exports for Existing Conditions

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										300	237	443	980
1922	220	178	314	71	61	360	411	411	397	259	218	268	3,168
1923	221	187	197	67	43	130	411	411	397	264	220	212	2,758
1924	178	121	18	18	18	16	18	18	34	143	182	226	993
1925	198	129	240	71	58	136	280	195	214	131	195	229	2,077
1926	198	96	18	68	43	142	411	142	149	128	397	230	2,022
1927	146	219	227	60	43	171	411	411	393	246	209	438	2,973
1928	213	129	296	60	43	150	369	411	397	185	162	330	2,746
1929	203	182	153	90	23	12	18	18	48	64	86	192	1,090
1930	148	139	155	63	35	96	411	217	321	121	164	140	2,010
1931	201	156	64	18	18	18	18	18	28	56	100	441	1,135
1932	210	239	211	42	43	81	282	173	114	113	142	199	1,849
1933	202	297	107	42	43	18	18	18	39	77	105	255	1,222
1934	366	245	115	18	18	18	18	18	33	63	202	247	1,362
1935	212	213	217	61	43	138	411	411	397	318	211	253	2,885
1936	133	432	356	61	43	172	411	411	397	321	228	262	3,227
1937	255	472	369	88	62	276	407	186	154	193	397	346	3,205
1938	455	472	434	149	380	397	411	411	350	213	58	436	4,167
1939	208	190	110	63	43	18	411	170	132	137	116	247	1,845
1940	160	190	367	82	44	163	381	411	397	227	160	258	2,841
1941	249	472	465	95	88	261	411	411	356	171	54	262	3,295
1942	276	269	313	85	66	248	411	411	360	209	18	249	2,914
1943	336	325	465	83	50	184	408	411	375	200	75	438	3,349
1944	209	212	163	57	43	114	411	56	149	159	397	235	2,206
1945	213	233	350	64	43	52	411	392	353	242	397	321	3,072
1946	238	229	288	53	43	87	411	409	397	295	280	290	3,022
1947	206	195	82	61	43	101	329	18	150	203	219	166	1,773
1948	125	36	156	42	43	159	411	411	397	226	225	256	2,486
1949	198	184	119	42	43	103	313	18	154	88	151	154	1,567
1950	133	143	211	45	43	124	409	411	397	335	397	472	3,120
1951	496	345	383	59	43	158	356	411	397	222	303	242	3,415
1952	313	284	465	104	112	365	411	411	397	189	66	438	3,554
1953	176	211	254	58	47	115	411	411	384	176	27	432	2,701
1954	128	139	213	66	43	151	354	411	397	246	277	433	2,857
1955	221	187	148	53	43	18	203	169	187	138	211	376	1,954
1956	523	361	387	61	63	265	411	411	371	192	38	434	3,517
1957	203	104	181	58	43	46	402	411	397	397	203	227	2,673
1958	157	229	460	156	98	313	411	411	397	208	62	436	3,337
1959	135	155	217	59	43	99	411	411	397	227	151	159	2,463
1960	200	128	149	18	79	90	410	223	208	120	244	204	2,074
1961	204	112	203	44	47	7	325	19	152	57	155	193	1,518
1962	167	175	235	65	43	18	410	411	227	411	397	219	2,778
1963	149	161	220	55	43	135	410	411	397	267	287	336	2,870
1964	210	181	150	18	43	18	411	171	200	159	188	246	1,994
1965	265	254	253	80	43	139	409	411	390	160	300	454	3,157

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1966	244	213	203	42	43	99	410	411	313	162	397	241	2,778
1967	185	201	350	133	95	397	411	411	397	243	84	434	3,341
1968	210	131	230	58	43	98	410	411	397	214	261	434	2,898
1969	351	257	223	236	340	397	411	411	375	246	23	256	3,525
1970	523	289	417	44	43	109	411	411	390	206	383	244	3,469
1971	210	193	260	62	43	157	411	411	393	181	23	434	2,778
1972	196	104	144	70	43	97	411	411	323	262	397	234	2,693
1973	179	242	331	65	43	170	410	411	397	348	397	258	3,252
1974	267	211	318	74	43	205	411	411	397	235	26	440	3,037
1975	208	170	366	62	43	236	411	411	397	322	18	434	3,079
1976	202	180	181	72	49	15	411	97	103	137	121	153	1,721
1977	36	99	52	18	18	3	18	18	91	18	114	172	658
1978	177	270	307	97	85	242	411	411	397	231	174	438	3,240
1979	241	260	307	68	61	187	411	411	208	354	241	436	3,185
1980	437	344	236	66	57	262	411	411	397	260	112	435	3,426
1981	208	188	192	70	49	98	411	203	311	242	397	227	2,595
1982	241	420	465	364	141	292	411	411	397	411	397	472	4,421
1983	466	177	191	200	249	304	332	411	397	411	397	452	3,988
1984	377	355	383	63	43	170	400	411	397	279	397	433	3,710
1985	210	196	196	77	51	99	411	94	353	185	315	263	2,450
1986	132	472	465	99	77	226	411	411	393	253	52	395	3,387
1987	203	186	144	28	103	82	57	36	117	28	58	204	1,246
1988	146	20	104	62	56	18	48	18	78	23	215	223	1,012
1989	192	78	74	65	48	141	411	399	397	232	133	113	2,284
1990	190	174	131	18	56	13	216	18	115	49	76	113	1,169
1991	18	86	79	55	51	94	118	18	45	70	95	150	880
1992	71	97	197	42	18	18	18	18	115	18	36	217	867
1993	199	229	243	42	43	193	411	411	397	235	74	430	2,906
1994	197	185	141	39	65	14	344	35	195	26	147	235	1,625
1995	186	202	465	110	162	333	411	411	397	156	37	228	3,098
1996	175	455	404	72	58	204	411	411	397	141	98	472	3,298
1997	523	472	465	51	50	170	411	411	397	175	116	434	3,675
1998	199	472	465	124	120	397	411	411	397	339	397	243	3,976
1999	252	390	292	55	43	174	410	411	359	190	18	431	3,024
2000	140	361	359	58	43	160	370	411	397	203	93	436	3,030
2001	213	168	179	76	18	55	19	34	178	45	208	242	1,434
2002	164	191	159	42	43	100	411	87	233	78	160	237	1,905
2003	142	187	206	42	43	104	379	411	397				2,889
Average	224	226	249	71	63	147	344	291	295	196	190	305	2,600
Minimum	18	20	18	18	18	3	18	18	28	18	18	113	658
Maximum	523	472	465	364	380	397	411	411	397	411	397	472	4,421

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Individual Contractor Table A Deliveries - Existing Conditions

The tables on the following pages show the Table A deliveries for each State Water Contractor for the Existing Conditions scenario.

Table B.9. Alameda County FC&WCD-Zone 7: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	60	0	60	75%	1983	80	0%	100%
1923	50	2	51	64%	1938	80	1%	99%
1924	19	1	21	25%	1980	80	2%	99%
1925	32	0	32	40%	1967	80	4%	99%
1926	40	0	41	51%	1982	79	5%	98%
1927	55	1	55	68%	1958	79	6%	98%
1928	60	2	62	77%	1969	79	7%	98%
1929	19	2	20	25%	1952	73	9%	90%
1930	29	0	29	37%	1995	72	10%	89%
1931	27	0	27	33%	1986	71	11%	89%
1932	26	0	26	32%	1943	71	12%	88%
1933	33	0	33	41%	1998	71	14%	88%
1934	21	0	22	27%	1941	70	15%	87%
1935	53	0	53	65%	1956	70	16%	87%
1936	59	1	61	75%	1974	68	17%	85%
1937	59	2	60	75%	1997	68	19%	84%
1938	78	2	80	99%	1978	63	20%	79%
1939	42	2	45	55%	1984	63	21%	78%
1940	51	1	51	64%	1951	62	22%	77%
1941	69	1	70	87%	1928	62	23%	77%
1942	55	2	56	70%	1999	62	25%	77%
1943	69	2	71	88%	1973	62	26%	77%
1944	33	2	35	44%	1970	62	27%	76%
1945	58	0	59	73%	1996	61	28%	75%
1946	53	2	55	68%	1936	61	30%	75%
1947	43	2	44	55%	1922	60	31%	75%
1948	41	1	41	51%	1985	60	32%	75%
1949	31	1	31	38%	1937	60	33%	75%
1950	48	0	48	59%	1979	60	35%	74%
1951	61	1	62	77%	2000	60	36%	74%
1952	71	2	73	90%	1945	59	37%	73%
1953	50	2	52	64%	1975	58	38%	71%
1954	50	1	51	64%	1942	56	40%	70%
1955	33	1	35	43%	1971	55	41%	69%
1956	70	0	70	87%	1927	55	42%	68%
1957	43	2	45	56%	1946	55	43%	68%
1958	78	1	79	98%	1935	53	44%	65%
1959	43	2	45	56%	1965	52	46%	65%
1960	38	1	39	48%	1963	52	47%	65%
1961	33	0	33	41%	1953	52	48%	64%
1962	44	1	45	55%	1993	52	49%	64%
1963	52	1	52	65%	1964	52	51%	64%
1964	50	1	52	64%	1954	51	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	52	0	52	65%	1923	51	53%	64%
1966	50	1	51	63%	1940	51	54%	64%
1967	78	1	80	99%	1966	51	56%	63%
1968	42	2	44	55%	2002	50	57%	62%
1969	78	1	79	98%	1989	50	58%	62%
1970	59	2	62	76%	2003	49	59%	60%
1971	54	2	55	69%	1950	48	60%	59%
1972	40	2	42	52%	1981	46	62%	57%
1973	61	1	62	77%	1959	45	63%	56%
1974	67	2	68	85%	1957	45	64%	56%
1975	56	2	58	71%	1939	45	65%	55%
1976	33	2	35	43%	1962	45	67%	55%
1977	9	0	9	11%	1947	44	68%	55%
1978	63	0	63	79%	1968	44	69%	55%
1979	58	2	60	74%	1972	42	70%	52%
1980	78	1	80	99%	1948	41	72%	51%
1981	44	2	46	57%	1926	41	73%	51%
1982	78	1	79	98%	1960	39	74%	48%
1983	78	2	80	100%	1994	37	75%	46%
1984	62	1	63	78%	1944	35	77%	44%
1985	59	1	60	75%	1976	35	78%	43%
1986	70	2	71	89%	1955	35	79%	43%
1987	17	2	19	24%	1933	33	80%	41%
1988	17	0	17	21%	1961	33	81%	41%
1989	50	0	50	62%	1925	32	83%	40%
1990	19	1	21	26%	1949	31	84%	38%
1991	12	0	12	15%	1930	29	85%	37%
1992	19	0	19	24%	2001	27	86%	33%
1993	52	0	52	64%	1931	27	88%	33%
1994	36	1	37	46%	1932	26	89%	32%
1995	71	0	72	89%	1934	22	90%	27%
1996	60	0	61	75%	1990	21	91%	26%
1997	66	2	68	84%	1924	21	93%	25%
1998	69	2	71	88%	1929	20	94%	25%
1999	60	2	62	77%	1992	19	95%	24%
2000	58	2	60	74%	1987	19	96%	24%
2001	25	2	27	33%	1988	17	98%	21%
2002	50	0	50	62%	1991	12	99%	15%
2003	48	0	49	60%	1977	9	100%	11%
Average	49	1	50	62%		50		62%
Maximum	78	2	80	100%		80		100%
Minimum	9	0	9	11%		9		11%

Table B.10. Alameda County WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	32	0	32	77%	1967	42	0%	100%
1923	27	0	27	63%	1980	42	1%	100%
1924	10	0	10	24%	1938	42	2%	100%
1925	17	0	17	41%	1938	42	4%	100%
1926	22	0	22	52%	1938	42	5%	100%
1927	29	0	29	70%	1938	42	6%	100%
1928	32	0	32	77%	1969	42	7%	100%
1929	10	0	10	23%	1995	38	9%	91%
1930	15	0	15	37%	1952	38	10%	91%
1931	14	0	14	33%	1986	37	11%	89%
1932	14	0	14	32%	1956	37	12%	89%
1933	18	0	18	42%	1943	37	14%	89%
1934	11	0	11	26%	1998	37	15%	88%
1935	28	0	28	67%	1941	37	16%	87%
1936	32	0	32	75%	1974	36	17%	85%
1937	31	0	31	75%	1997	36	19%	85%
1938	42	0	42	100%	1978	34	20%	81%
1939	23	0	23	54%	1984	33	21%	79%
1940	27	0	27	65%	1951	33	22%	78%
1941	37	0	37	87%	1973	33	23%	78%
1942	29	0	29	70%	1928	32	25%	77%
1943	37	0	37	89%	1996	32	26%	77%
1944	18	0	18	42%	1922	32	27%	77%
1945	31	0	31	74%	1999	32	28%	77%
1946	29	0	29	68%	1970	32	30%	76%
1947	23	0	23	55%	1936	32	31%	75%
1948	22	0	22	52%	1985	31	32%	75%
1949	16	0	16	38%	1937	31	33%	75%
1950	25	0	25	61%	1945	31	35%	74%
1951	33	0	33	78%	1945	31	36%	74%
1952	38	0	38	91%	2000	31	37%	74%
1953	27	0	27	63%	1975	30	38%	71%
1954	27	0	27	64%	1927	29	40%	70%
1955	18	0	18	42%	1942	29	41%	70%
1956	37	0	37	89%	2003	29	42%	69%
1957	23	0	23	55%	1971	29	43%	68%
1958	42	0	42	100%	1946	29	44%	68%
1959	23	0	23	55%	1935	28	46%	67%
1960	20	0	20	48%	1965	28	47%	66%
1961	18	0	18	42%	1963	28	48%	66%
1962	24	0	24	56%	1993	28	49%	66%
1963	28	0	28	66%	1940	27	51%	65%
1964	27	0	27	64%	2002	27	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	28	0	28	66%	1964	27	53%	64%
1966	27	0	27	63%	1954	27	54%	64%
1967	42	0	42	100%	1989	27	56%	64%
1968	22	0	22	54%	1953	27	57%	63%
1969	42	0	42	100%	1923	27	58%	63%
1970	32	0	32	76%	1966	27	59%	63%
1971	29	0	29	68%	1950	25	60%	61%
1972	22	0	22	52%	1962	24	62%	56%
1973	33	0	33	78%	1981	23	63%	56%
1974	36	0	36	85%	1957	23	64%	55%
1975	30	0	30	71%	1959	23	65%	55%
1976	18	0	18	42%	1947	23	67%	55%
1977	4	0	4	11%	1939	23	68%	54%
1978	34	0	34	81%	1968	22	69%	54%
1979	31	0	31	74%	1948	22	70%	52%
1980	42	0	42	100%	1926	22	72%	52%
1981	23	0	23	56%	1972	22	73%	52%
1982	42	0	42	100%	1960	20	74%	48%
1983	42	0	42	100%	1994	19	75%	46%
1984	33	0	33	79%	1933	18	77%	42%
1985	31	0	31	75%	1944	18	78%	42%
1986	37	0	37	89%	1955	18	79%	42%
1987	9	0	9	21%	1976	18	80%	42%
1988	9	0	9	21%	1961	18	81%	42%
1989	27	0	27	64%	1925	17	83%	41%
1990	10	0	10	24%	1949	16	84%	38%
1991	6	0	6	15%	1930	15	85%	37%
1992	10	0	10	24%	1931	14	86%	33%
1993	28	0	28	66%	1932	14	88%	32%
1994	19	0	19	46%	2001	13	89%	31%
1995	38	0	38	91%	1934	11	90%	26%
1996	32	0	32	77%	1990	10	91%	24%
1997	36	0	36	85%	1992	10	93%	24%
1998	37	0	37	88%	1924	10	94%	24%
1999	32	0	32	77%	1929	10	95%	23%
2000	31	0	31	74%	1988	9	96%	21%
2001	13	0	13	31%	1987	9	98%	21%
2002	27	0	27	64%	1991	6	99%	15%
2003	29	0	29	69%	1977	4	100%	11%
Average	26	0	26	63%		26		63%
Maximum	42	0	42	100%		42		100%
Minimum	4	0	4	11%		4		11%

Table B.11. Antelope Valley-East Kern WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	109	0	109	77%	1983	141	0%	100%
1923	90	0	90	63%	1938	141	1%	100%
1924	34	0	34	24%	1938	141	2%	100%
1925	58	0	58	41%	1938	141	4%	100%
1926	73	0	73	52%	1938	141	5%	100%
1927	99	0	99	70%	1938	141	6%	100%
1928	109	0	109	77%	1958	129	7%	91%
1929	33	0	33	23%	1952	128	9%	91%
1930	52	0	52	37%	1986	126	10%	89%
1931	47	0	47	33%	1956	126	11%	89%
1932	46	0	46	32%	1998	124	12%	88%
1933	45	0	45	32%	1941	124	14%	87%
1934	37	0	37	26%	1974	120	15%	85%
1935	95	0	95	67%	1997	120	16%	85%
1936	107	0	107	75%	1943	117	17%	83%
1937	106	0	106	75%	1978	114	19%	81%
1938	141	0	141	100%	1984	111	20%	79%
1939	51	0	51	36%	1951	111	21%	78%
1940	92	0	92	65%	1973	111	22%	78%
1941	124	0	124	87%	1928	109	23%	77%
1942	98	0	98	70%	1996	109	25%	77%
1943	117	0	117	83%	1922	109	26%	77%
1944	60	0	60	42%	1999	108	27%	77%
1945	105	0	105	74%	1970	107	28%	76%
1946	96	0	96	68%	1936	107	30%	75%
1947	77	0	77	55%	1985	106	31%	75%
1948	73	0	73	52%	1937	106	32%	75%
1949	54	0	54	38%	1945	105	33%	74%
1950	86	0	86	61%	1979	105	35%	74%
1951	111	0	111	78%	2000	105	36%	74%
1952	128	0	128	91%	1975	101	37%	71%
1953	90	0	90	63%	1927	99	38%	70%
1954	90	0	90	64%	1942	98	40%	70%
1955	59	0	59	42%	1995	98	41%	70%
1956	126	0	126	89%	1971	97	42%	68%
1957	78	0	78	55%	1946	96	43%	68%
1958	129	0	129	91%	1935	95	44%	67%
1959	78	0	78	55%	2003	95	46%	67%
1960	69	0	69	48%	1965	94	47%	66%
1961	55	0	55	39%	1963	93	48%	66%
1962	79	0	79	56%	1993	93	49%	66%
1963	93	0	93	66%	1940	92	51%	65%
1964	85	0	85	60%	1954	90	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	94	0	94	66%	1989	90	53%	64%
1966	89	0	89	63%	1953	90	54%	63%
1967	141	0	141	100%	1923	90	56%	63%
1968	76	0	76	54%	1966	89	57%	63%
1969	141	0	141	100%	1950	86	58%	61%
1970	107	0	107	76%	1964	85	59%	60%
1971	97	0	97	68%	1962	79	60%	56%
1972	73	0	73	52%	1981	79	62%	56%
1973	111	0	111	78%	1957	78	63%	55%
1974	120	0	120	85%	1959	78	64%	55%
1975	101	0	101	71%	1947	77	65%	55%
1976	59	0	59	42%	1968	76	67%	54%
1977	15	0	15	11%	1948	73	68%	52%
1978	114	0	114	81%	1926	73	69%	52%
1979	105	0	105	74%	1972	73	70%	52%
1980	141	0	141	100%	1960	69	72%	48%
1981	79	0	79	56%	1994	65	73%	46%
1982	141	0	141	100%	1944	60	74%	42%
1983	141	0	141	100%	1955	59	75%	42%
1984	111	0	111	79%	1976	59	77%	42%
1985	106	0	106	75%	1925	58	78%	41%
1986	126	0	126	89%	1961	55	79%	39%
1987	30	0	30	21%	1949	54	80%	38%
1988	30	0	30	21%	1930	52	81%	37%
1989	90	0	90	64%	1939	51	83%	36%
1990	34	0	34	24%	2002	51	84%	36%
1991	21	0	21	15%	1931	47	85%	33%
1992	34	0	34	24%	1932	46	86%	32%
1993	93	0	93	66%	1933	45	88%	32%
1994	65	0	65	46%	2001	44	89%	31%
1995	98	0	98	70%	1934	37	90%	26%
1996	109	0	109	77%	1990	34	91%	24%
1997	120	0	120	85%	1992	34	93%	24%
1998	124	0	124	88%	1924	34	94%	24%
1999	108	0	108	77%	1929	33	95%	23%
2000	105	0	105	74%	1988	30	96%	21%
2001	44	0	44	31%	1987	30	98%	21%
2002	51	0	51	36%	1991	21	99%	15%
2003	95	0	95	67%	1977	15	100%	11%
Average	87	0	87	61%		87		61%
Maximum	141	0	141	100%		141		100%
Minimum	15	0	15	11%		15		11%

Table B.12. Castaic Lake WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	73	0	73	77%	1969	95	0%	100%
1923	60	0	60	63%	1969	95	1%	100%
1924	23	0	23	24%	1969	95	2%	100%
1925	39	0	39	41%	1938	95	4%	100%
1926	49	0	49	52%	1938	95	5%	100%
1927	66	0	66	70%	1938	95	6%	100%
1928	73	0	73	77%	1938	95	7%	100%
1929	22	0	22	23%	1952	86	9%	91%
1930	35	0	35	37%	1995	85	10%	90%
1931	32	0	32	33%	1986	85	11%	89%
1932	31	0	31	32%	1956	85	12%	89%
1933	38	0	38	40%	1943	84	14%	89%
1934	25	0	25	26%	1998	84	15%	88%
1935	64	0	64	67%	1941	83	16%	87%
1936	72	0	72	75%	1974	81	17%	85%
1937	71	0	71	75%	1997	81	19%	85%
1938	95	0	95	100%	1978	77	20%	81%
1939	49	0	49	52%	1984	75	21%	79%
1940	62	0	62	65%	1951	75	22%	78%
1941	83	0	83	87%	1973	75	23%	78%
1942	66	0	66	70%	1928	73	25%	77%
1943	84	0	84	89%	1996	73	26%	77%
1944	40	0	40	42%	1922	73	27%	77%
1945	71	0	71	74%	1999	73	28%	77%
1946	65	0	65	68%	1970	72	30%	76%
1947	52	0	52	55%	1936	72	31%	75%
1948	49	0	49	52%	1985	71	32%	75%
1949	37	0	37	38%	1937	71	33%	75%
1950	58	0	58	61%	1979	71	35%	74%
1951	75	0	75	78%	1945	71	36%	74%
1952	86	0	86	91%	2000	70	37%	74%
1953	60	0	60	63%	1975	68	38%	71%
1954	61	0	61	64%	1927	66	40%	70%
1955	40	0	40	42%	1942	66	41%	70%
1956	85	0	85	89%	1971	65	42%	68%
1957	52	0	52	55%	1946	65	43%	68%
1958	95	0	95	100%	1935	64	44%	67%
1959	52	0	52	55%	1965	63	46%	66%
1960	46	0	46	48%	1963	63	47%	66%
1961	38	0	38	39%	1993	63	48%	66%
1962	53	0	53	56%	1940	62	49%	65%
1963	63	0	63	66%	1954	61	51%	64%
1964	59	0	59	62%	1989	60	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	63	0	63	66%	1953	60	53%	63%
1966	60	0	60	63%	1923	60	54%	63%
1967	95	0	95	100%	1966	60	56%	63%
1968	51	0	51	54%	2003	59	57%	62%
1969	95	0	95	100%	2002	59	58%	62%
1970	72	0	72	76%	1964	59	59%	62%
1971	65	0	65	68%	1950	58	60%	61%
1972	49	0	49	52%	1962	53	62%	56%
1973	75	0	75	78%	1981	53	63%	56%
1974	81	0	81	85%	1957	52	64%	55%
1975	68	0	68	71%	1959	52	65%	55%
1976	40	0	40	42%	1947	52	67%	55%
1977	10	0	10	11%	1968	51	68%	54%
1978	77	0	77	81%	1948	49	69%	52%
1979	71	0	71	74%	1926	49	70%	52%
1980	95	0	95	100%	1972	49	72%	52%
1981	53	0	53	56%	1939	49	73%	52%
1982	95	0	95	100%	1960	46	74%	48%
1983	95	0	95	100%	1994	42	75%	44%
1984	75	0	75	79%	1944	40	77%	42%
1985	71	0	71	75%	1955	40	78%	42%
1986	85	0	85	89%	1976	40	79%	42%
1987	20	0	20	21%	1925	39	80%	41%
1988	20	0	20	21%	1933	38	81%	40%
1989	60	0	60	64%	1961	38	83%	39%
1990	23	0	23	24%	1949	37	84%	38%
1991	14	0	14	15%	1930	35	85%	37%
1992	23	0	23	24%	1931	32	86%	33%
1993	63	0	63	66%	1932	31	88%	32%
1994	42	0	42	44%	2001	30	89%	31%
1995	85	0	85	90%	1934	25	90%	26%
1996	73	0	73	77%	1990	23	91%	24%
1997	81	0	81	85%	1992	23	93%	24%
1998	84	0	84	88%	1924	23	94%	24%
1999	73	0	73	77%	1929	22	95%	23%
2000	70	0	70	74%	1988	20	96%	21%
2001	30	0	30	31%	1987	20	98%	21%
2002	59	0	59	62%	1991	14	99%	15%
2003	59	0	59	62%	1977	10	100%	11%
Average	59	0	59	62%		59		62%
Maximum	95	0	95	100%		95		100%
Minimum	10	0	10	11%		10		11%

Table B.13. Coachella Valley WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	99	0	99	71%	1938	136	0%	98%
1923	85	8	92	67%	1980	135	1%	97%
1924	33	3	36	26%	1967	131	2%	95%
1925	57	0	57	41%	1983	129	4%	93%
1926	71	0	71	52%	1958	128	5%	93%
1927	89	0	89	65%	1958	128	6%	93%
1928	99	7	106	77%	1958	128	7%	93%
1929	32	8	40	29%	1952	124	9%	90%
1930	51	0	51	37%	1986	122	10%	88%
1931	46	0	46	33%	1998	121	11%	88%
1932	45	0	45	32%	1943	121	12%	87%
1933	59	0	59	42%	2003	118	14%	85%
1934	36	0	36	26%	1974	117	15%	85%
1935	87	0	87	63%	1997	116	16%	84%
1936	97	6	102	74%	1941	116	17%	84%
1937	96	7	102	74%	1956	114	19%	82%
1938	128	7	136	98%	1970	107	20%	78%
1939	75	10	85	61%	1999	107	21%	77%
1940	86	0	86	62%	1928	106	22%	77%
1941	112	4	116	84%	1978	104	23%	75%
1942	89	3	92	67%	1979	103	25%	75%
1943	114	7	121	87%	1985	103	26%	74%
1944	58	5	64	46%	2000	103	27%	74%
1945	95	0	95	69%	1937	102	28%	74%
1946	88	7	95	69%	1936	102	30%	74%
1947	75	6	82	59%	1951	101	31%	73%
1948	72	0	72	52%	1984	101	32%	73%
1949	53	0	53	38%	1973	101	33%	73%
1950	83	0	83	60%	1975	100	35%	72%
1951	101	1	101	73%	1996	99	36%	72%
1952	116	8	124	90%	1922	99	37%	71%
1953	85	9	94	68%	1971	96	38%	69%
1954	85	3	88	64%	1945	95	40%	69%
1955	58	3	62	44%	1946	95	41%	69%
1956	114	0	114	82%	1953	94	42%	68%
1957	76	9	85	61%	1923	92	43%	67%
1958	128	0	128	93%	1942	92	44%	67%
1959	76	6	82	59%	1964	90	46%	65%
1960	67	0	67	48%	1966	90	47%	65%
1961	58	0	58	42%	1927	89	48%	65%
1962	77	0	77	56%	1954	88	49%	64%
1963	86	0	86	62%	1935	87	51%	63%
1964	86	5	90	65%	1965	87	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	87	1	87	63%	1963	86	53%	62%
1966	85	5	90	65%	1993	86	54%	62%
1967	128	3	131	95%	1995	86	56%	62%
1968	74	10	84	61%	1940	86	57%	62%
1969	128	0	128	93%	2002	86	58%	62%
1970	97	10	107	78%	1989	85	59%	62%
1971	88	8	96	69%	1957	85	60%	61%
1972	71	7	78	56%	1939	85	62%	61%
1973	101	0	101	73%	1968	84	63%	61%
1974	109	8	117	85%	1981	83	64%	60%
1975	91	8	100	72%	1950	83	65%	60%
1976	58	7	65	47%	1959	82	67%	59%
1977	15	0	15	11%	1947	82	68%	59%
1978	104	0	104	75%	1972	78	69%	56%
1979	95	8	103	75%	1962	77	70%	56%
1980	129	6	135	97%	1948	72	72%	52%
1981	77	6	83	60%	1926	71	73%	52%
1982	128	0	128	93%	1994	68	74%	49%
1983	128	1	129	93%	1960	67	75%	48%
1984	101	0	101	73%	1976	65	77%	47%
1985	96	7	103	74%	1944	64	78%	46%
1986	114	7	122	88%	1955	62	79%	44%
1987	30	4	34	25%	1933	59	80%	42%
1988	30	0	30	21%	1961	58	81%	42%
1989	85	0	85	62%	1925	57	83%	41%
1990	33	2	36	26%	1949	53	84%	38%
1991	21	0	21	15%	1930	51	85%	37%
1992	33	0	33	24%	2001	51	86%	37%
1993	86	0	86	62%	1931	46	88%	33%
1994	63	5	68	49%	1932	45	89%	32%
1995	86	0	86	62%	1929	40	90%	29%
1996	99	1	99	72%	1934	36	91%	26%
1997	109	8	116	84%	1924	36	93%	26%
1998	113	8	121	88%	1990	36	94%	26%
1999	98	9	107	77%	1987	34	95%	25%
2000	95	8	103	74%	1992	33	96%	24%
2001	43	7	51	37%	1988	30	98%	21%
2002	86	0	86	62%	1991	21	99%	15%
2003	117	1	118	85%	1977	15	100%	11%
Average	82	3	86	62%		86		62%
Maximum	129	10	136	98%		136		98%
Minimum	15	0	15	11%		15		11%

Table B.14. County of Kings: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	7	0	7	77%	1938	9	0%	100%
1923	6	0	6	63%	1938	9	1%	100%
1924	2	0	2	24%	1938	9	2%	100%
1925	4	0	4	41%	1938	9	4%	100%
1926	5	0	5	52%	1938	9	5%	100%
1927	6	0	6	70%	1938	9	6%	100%
1928	7	0	7	77%	1938	9	7%	100%
1929	2	0	2	23%	1952	8	9%	91%
1930	3	0	3	37%	1986	8	10%	89%
1931	3	0	3	33%	1956	8	11%	89%
1932	3	0	3	32%	1943	8	12%	89%
1933	2	0	2	21%	1998	8	14%	88%
1934	2	0	2	26%	1941	8	15%	87%
1935	6	0	6	67%	1974	8	16%	85%
1936	7	0	7	75%	1997	8	17%	85%
1937	7	0	7	75%	1978	8	19%	81%
1938	9	0	9	100%	1995	7	20%	80%
1939	3	0	3	27%	1984	7	21%	79%
1940	6	0	6	65%	1951	7	22%	78%
1941	8	0	8	87%	1973	7	23%	78%
1942	6	0	6	70%	1928	7	25%	77%
1943	8	0	8	89%	1996	7	26%	77%
1944	4	0	4	42%	1922	7	27%	77%
1945	7	0	7	74%	1999	7	28%	77%
1946	6	0	6	68%	1970	7	30%	76%
1947	5	0	5	55%	1936	7	31%	75%
1948	5	0	5	52%	1985	7	32%	75%
1949	4	0	4	38%	1937	7	33%	75%
1950	6	0	6	61%	1945	7	35%	74%
1951	7	0	7	78%	1945	7	36%	74%
1952	8	0	8	91%	2000	7	37%	74%
1953	6	0	6	63%	2003	7	38%	72%
1954	6	0	6	64%	1975	7	40%	71%
1955	4	0	4	42%	1927	6	41%	70%
1956	8	0	8	89%	1942	6	42%	70%
1957	5	0	5	55%	1971	6	43%	68%
1958	9	0	9	100%	1946	6	44%	68%
1959	5	0	5	55%	1935	6	46%	67%
1960	5	0	5	48%	1965	6	47%	66%
1961	2	0	2	21%	1963	6	48%	66%
1962	5	0	5	56%	1993	6	49%	66%
1963	6	0	6	66%	1940	6	51%	65%
1964	4	0	4	40%	1954	6	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	6	0	6	66%	1989	6	53%	64%
1966	6	0	6	63%	1953	6	54%	63%
1967	9	0	9	100%	1923	6	56%	63%
1968	5	0	5	54%	1966	6	57%	63%
1969	9	0	9	100%	1950	6	58%	61%
1970	7	0	7	76%	1962	5	59%	56%
1971	6	0	6	68%	1981	5	60%	56%
1972	5	0	5	52%	1957	5	62%	55%
1973	7	0	7	78%	1959	5	63%	55%
1974	8	0	8	85%	1947	5	64%	55%
1975	7	0	7	71%	1968	5	65%	54%
1976	4	0	4	42%	1948	5	67%	52%
1977	1	0	1	11%	1926	5	68%	52%
1978	8	0	8	81%	1972	5	69%	52%
1979	7	0	7	74%	1960	5	70%	48%
1980	9	0	9	100%	1944	4	72%	42%
1981	5	0	5	56%	1955	4	73%	42%
1982	9	0	9	100%	1976	4	74%	42%
1983	9	0	9	100%	1925	4	75%	41%
1984	7	0	7	79%	2002	4	77%	40%
1985	7	0	7	75%	1964	4	78%	40%
1986	8	0	8	89%	1949	4	79%	38%
1987	2	0	2	21%	1930	3	80%	37%
1988	2	0	2	21%	1931	3	81%	33%
1989	6	0	6	64%	1932	3	83%	32%
1990	2	0	2	24%	2001	3	84%	31%
1991	1	0	1	15%	1994	3	85%	29%
1992	2	0	2	24%	1939	3	86%	27%
1993	6	0	6	66%	1934	2	88%	26%
1994	3	0	3	29%	1990	2	89%	24%
1995	7	0	7	80%	1992	2	90%	24%
1996	7	0	7	77%	1924	2	91%	24%
1997	8	0	8	85%	1929	2	93%	23%
1998	8	0	8	88%	1988	2	94%	21%
1999	7	0	7	77%	1987	2	95%	21%
2000	7	0	7	74%	1933	2	96%	21%
2001	3	0	3	31%	1961	2	98%	21%
2002	4	0	4	40%	1991	1	99%	15%
2003	7	0	7	72%	1977	1	100%	11%
Average	6	0	6	61%		6		61%
Maximum	9	0	9	100%		9		100%
Minimum	1	0	1	11%		1		11%

Table B.15. Crestline-Lake Arrowhead WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	77%	1982	6	0%	100%
1923	4	0	4	63%	1980	6	1%	100%
1924	1	0	1	24%	1938	6	2%	100%
1925	2	0	2	41%	1938	6	4%	100%
1926	3	0	3	52%	1938	6	5%	100%
1927	4	0	4	70%	1969	6	6%	100%
1928	4	0	4	77%	1983	6	7%	100%
1929	1	0	1	23%	1995	5	9%	91%
1930	2	0	2	37%	1952	5	10%	91%
1931	2	0	2	33%	1986	5	11%	89%
1932	2	0	2	32%	1956	5	12%	89%
1933	2	0	2	42%	1943	5	14%	89%
1934	2	0	2	26%	1998	5	15%	88%
1935	4	0	4	67%	1941	5	16%	87%
1936	4	0	4	75%	1974	5	17%	85%
1937	4	0	4	75%	1997	5	19%	85%
1938	6	0	6	100%	1978	5	20%	81%
1939	3	0	3	54%	1984	5	21%	79%
1940	4	0	4	65%	1951	5	22%	78%
1941	5	0	5	87%	1973	5	23%	78%
1942	4	0	4	70%	1928	4	25%	77%
1943	5	0	5	89%	1996	4	26%	77%
1944	2	0	2	42%	1922	4	27%	77%
1945	4	0	4	74%	1999	4	28%	77%
1946	4	0	4	68%	1970	4	30%	76%
1947	3	0	3	55%	1936	4	31%	75%
1948	3	0	3	52%	1985	4	32%	75%
1949	2	0	2	38%	1937	4	33%	75%
1950	4	0	4	61%	1979	4	35%	74%
1951	5	0	5	78%	1945	4	36%	74%
1952	5	0	5	91%	2000	4	37%	74%
1953	4	0	4	63%	1975	4	38%	71%
1954	4	0	4	64%	1927	4	40%	70%
1955	2	0	2	42%	1942	4	41%	70%
1956	5	0	5	89%	1971	4	42%	68%
1957	3	0	3	55%	1946	4	43%	68%
1958	6	0	6	100%	1935	4	44%	67%
1959	3	0	3	55%	1965	4	46%	66%
1960	3	0	3	48%	1963	4	47%	66%
1961	2	0	2	42%	1993	4	48%	66%
1962	3	0	3	56%	2003	4	49%	65%
1963	4	0	4	66%	1940	4	51%	65%
1964	4	0	4	64%	2002	4	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	4	0	4	66%	1964	4	53%	64%
1966	4	0	4	63%	1954	4	54%	64%
1967	6	0	6	100%	1989	4	56%	64%
1968	3	0	3	54%	1953	4	57%	63%
1969	6	0	6	100%	1923	4	58%	63%
1970	4	0	4	76%	1966	4	59%	63%
1971	4	0	4	68%	1950	4	60%	61%
1972	3	0	3	52%	1962	3	62%	56%
1973	5	0	5	78%	1981	3	63%	56%
1974	5	0	5	85%	1957	3	64%	55%
1975	4	0	4	71%	1959	3	65%	55%
1976	2	0	2	42%	1947	3	67%	55%
1977	1	0	1	11%	1939	3	68%	54%
1978	5	0	5	81%	1968	3	69%	54%
1979	4	0	4	74%	1948	3	70%	52%
1980	6	0	6	100%	1926	3	72%	52%
1981	3	0	3	56%	1972	3	73%	52%
1982	6	0	6	100%	1960	3	74%	48%
1983	6	0	6	100%	1994	3	75%	46%
1984	5	0	5	79%	1933	2	77%	42%
1985	4	0	4	75%	1944	2	78%	42%
1986	5	0	5	89%	1955	2	79%	42%
1987	1	0	1	21%	1976	2	80%	42%
1988	1	0	1	21%	1961	2	81%	42%
1989	4	0	4	64%	1925	2	83%	41%
1990	1	0	1	24%	1949	2	84%	38%
1991	1	0	1	15%	1930	2	85%	37%
1992	1	0	1	24%	1931	2	86%	33%
1993	4	0	4	66%	1932	2	88%	32%
1994	3	0	3	46%	2001	2	89%	31%
1995	5	0	5	91%	1934	2	90%	26%
1996	4	0	4	77%	1990	1	91%	24%
1997	5	0	5	85%	1992	1	93%	24%
1998	5	0	5	88%	1924	1	94%	24%
1999	4	0	4	77%	1929	1	95%	23%
2000	4	0	4	74%	1988	1	96%	21%
2001	2	0	2	31%	1987	1	98%	21%
2002	4	0	4	64%	1991	1	99%	15%
2003	4	0	4	65%	1977	1	100%	11%
Average	4	0	4	63%		4		63%
Maximum	6	0	6	100%		6		100%
Minimum	1	0	1	11%		1		11%

Table B.16. Desert WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	34	0	34	60%	1983	52	0%	92%
1923	32	7	39	70%	1938	51	1%	91%
1924	13	2	16	28%	1980	50	2%	90%
1925	23	0	23	41%	2003	47	4%	85%
1926	29	0	29	52%	1952	47	5%	84%
1927	31	0	31	55%	1998	46	6%	83%
1928	34	6	40	72%	1967	46	7%	83%
1929	13	7	20	36%	1986	46	9%	82%
1930	21	0	21	37%	1943	45	10%	81%
1931	18	0	18	33%	1974	44	11%	80%
1932	18	0	18	32%	1997	44	12%	79%
1933	24	0	24	42%	1969	44	14%	79%
1934	15	0	15	26%	1958	44	15%	79%
1935	31	0	31	55%	1982	44	16%	79%
1936	33	5	38	68%	1970	43	17%	77%
1937	33	6	39	70%	1999	42	19%	75%
1938	44	7	51	91%	1941	42	20%	75%
1939	30	9	40	71%	1953	40	21%	72%
1940	31	0	31	56%	1928	40	22%	72%
1941	38	3	42	75%	1979	40	23%	72%
1942	31	1	32	57%	1995	40	25%	71%
1943	39	6	45	81%	1939	40	26%	71%
1944	24	2	26	46%	2000	39	27%	71%
1945	33	0	33	58%	1985	39	28%	71%
1946	31	7	37	67%	1975	39	30%	70%
1947	30	5	36	64%	1937	39	31%	70%
1948	29	0	29	52%	1957	39	32%	70%
1949	21	0	21	38%	1923	39	33%	70%
1950	32	0	32	58%	1956	39	35%	70%
1951	34	1	35	63%	1936	38	36%	68%
1952	40	7	47	84%	1946	37	37%	67%
1953	32	8	40	72%	1984	37	38%	66%
1954	32	3	34	61%	1971	37	40%	66%
1955	23	3	26	47%	1964	36	41%	65%
1956	39	0	39	70%	1966	36	42%	65%
1957	31	8	39	70%	1947	36	43%	64%
1958	44	0	44	79%	1978	35	44%	64%
1959	31	2	33	59%	1951	35	46%	63%
1960	27	0	27	48%	1968	35	47%	63%
1961	23	0	23	42%	1972	35	48%	62%
1962	31	0	31	56%	1973	34	49%	62%
1963	31	0	31	56%	1954	34	51%	61%
1964	32	4	36	65%	1996	34	52%	61%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	31	0	31	56%	1922	34	53%	60%
1966	32	4	36	65%	1981	34	54%	60%
1967	44	2	46	83%	1959	33	56%	59%
1968	30	5	35	63%	1945	33	57%	58%
1969	44	0	44	79%	1950	32	58%	58%
1970	33	9	43	77%	1989	32	59%	58%
1971	30	7	37	66%	2002	32	60%	58%
1972	29	6	35	62%	1942	32	62%	57%
1973	34	0	34	62%	1940	31	63%	56%
1974	37	7	44	80%	1962	31	64%	56%
1975	31	8	39	70%	1993	31	65%	56%
1976	23	6	30	53%	1965	31	67%	56%
1977	6	0	6	11%	1963	31	68%	56%
1978	35	0	35	64%	1935	31	69%	55%
1979	33	7	40	72%	1927	31	70%	55%
1980	44	6	50	90%	1976	30	72%	53%
1981	31	3	34	60%	1994	29	73%	53%
1982	44	0	44	79%	1948	29	74%	52%
1983	44	8	52	92%	1926	29	75%	52%
1984	34	3	37	66%	1960	27	77%	48%
1985	33	7	39	71%	1955	26	78%	47%
1986	39	7	46	82%	1944	26	79%	46%
1987	12	2	14	25%	2001	24	80%	43%
1988	12	0	12	21%	1933	24	81%	42%
1989	32	0	32	58%	1961	23	83%	42%
1990	13	1	14	26%	1925	23	84%	41%
1991	8	0	8	15%	1949	21	85%	38%
1992	13	0	13	24%	1930	21	86%	37%
1993	31	0	31	56%	1929	20	88%	36%
1994	26	4	29	53%	1931	18	89%	33%
1995	40	0	40	71%	1932	18	90%	32%
1996	34	0	34	61%	1924	16	91%	28%
1997	37	7	44	79%	1934	15	93%	26%
1998	39	8	46	83%	1990	14	94%	26%
1999	34	8	42	75%	1987	14	95%	25%
2000	32	7	39	71%	1992	13	96%	24%
2001	17	7	24	43%	1988	12	98%	21%
2002	32	0	32	58%	1991	8	99%	15%
2003	47	0	47	85%	1977	6	100%	11%
Average	30	3	33	59%		33		59%
Maximum	47	9	52	92%		52		92%
Minimum	6	0	6	11%		6		11%

Table B.17. Dudley Ridge WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	39	0	39	77%	1967	50	0%	100%
1923	32	0	32	63%	1967	50	1%	100%
1924	12	0	12	24%	1982	50	2%	100%
1925	21	0	21	41%	1938	50	4%	100%
1926	26	0	26	52%	1938	50	5%	100%
1927	35	0	35	70%	1938	50	6%	100%
1928	39	0	39	77%	1938	50	7%	100%
1929	12	0	12	23%	1952	46	9%	91%
1930	19	0	19	37%	1986	45	10%	89%
1931	17	0	17	33%	1956	45	11%	89%
1932	16	0	16	32%	1943	45	12%	89%
1933	21	0	21	42%	1998	44	14%	88%
1934	13	0	13	26%	1941	44	15%	87%
1935	34	0	34	67%	1974	43	16%	85%
1936	38	0	38	75%	1997	43	17%	85%
1937	38	0	38	75%	1978	41	19%	81%
1938	50	0	50	100%	1984	40	20%	79%
1939	27	0	27	54%	1951	39	21%	78%
1940	33	0	33	65%	1973	39	22%	78%
1941	44	0	44	87%	1995	39	23%	78%
1942	35	0	35	70%	1928	39	25%	77%
1943	45	0	45	89%	1996	39	26%	77%
1944	21	0	21	42%	1922	39	27%	77%
1945	37	0	37	74%	1999	39	28%	77%
1946	34	0	34	68%	1970	38	30%	76%
1947	27	0	27	55%	1936	38	31%	75%
1948	26	0	26	52%	1985	38	32%	75%
1949	19	0	19	38%	1937	38	33%	75%
1950	31	0	31	61%	1979	37	35%	74%
1951	39	0	39	78%	1945	37	36%	74%
1952	46	0	46	91%	2000	37	37%	74%
1953	32	0	32	63%	1975	36	38%	71%
1954	32	0	32	64%	1927	35	40%	70%
1955	21	0	21	42%	1942	35	41%	70%
1956	45	0	45	89%	1971	34	42%	68%
1957	28	0	28	55%	1946	34	43%	68%
1958	50	0	50	100%	1935	34	44%	67%
1959	28	0	28	55%	1965	33	46%	66%
1960	24	0	24	48%	1963	33	47%	66%
1961	21	0	21	42%	1993	33	48%	66%
1962	28	0	28	56%	1940	33	49%	65%
1963	33	0	33	66%	1954	32	51%	64%
1964	29	0	29	57%	1989	32	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	33	0	33	66%	1953	32	53%	63%
1966	32	0	32	63%	1923	32	54%	63%
1967	50	0	50	100%	1966	32	56%	63%
1968	27	0	27	54%	1950	31	57%	61%
1969	50	0	50	100%	1964	29	58%	57%
1970	38	0	38	76%	2002	29	59%	57%
1971	34	0	34	68%	1962	28	60%	56%
1972	26	0	26	52%	1981	28	62%	56%
1973	39	0	39	78%	1957	28	63%	55%
1974	43	0	43	85%	2003	28	64%	55%
1975	36	0	36	71%	1959	28	65%	55%
1976	21	0	21	42%	1947	27	67%	55%
1977	5	0	5	11%	1939	27	68%	54%
1978	41	0	41	81%	1968	27	69%	54%
1979	37	0	37	74%	1948	26	70%	52%
1980	50	0	50	100%	1926	26	72%	52%
1981	28	0	28	56%	1972	26	73%	52%
1982	50	0	50	100%	1960	24	74%	48%
1983	50	0	50	100%	1994	23	75%	46%
1984	40	0	40	79%	1933	21	77%	42%
1985	38	0	38	75%	1944	21	78%	42%
1986	45	0	45	89%	1955	21	79%	42%
1987	11	0	11	21%	1976	21	80%	42%
1988	11	0	11	21%	1961	21	81%	42%
1989	32	0	32	64%	1925	21	83%	41%
1990	12	0	12	24%	1949	19	84%	38%
1991	8	0	8	15%	1930	19	85%	37%
1992	12	0	12	24%	1931	17	86%	33%
1993	33	0	33	66%	1932	16	88%	32%
1994	23	0	23	46%	2001	16	89%	31%
1995	39	0	39	78%	1934	13	90%	26%
1996	39	0	39	77%	1990	12	91%	24%
1997	43	0	43	85%	1992	12	93%	24%
1998	44	0	44	88%	1924	12	94%	24%
1999	39	0	39	77%	1929	12	95%	23%
2000	37	0	37	74%	1988	11	96%	21%
2001	16	0	16	31%	1987	11	98%	21%
2002	29	0	29	57%	1991	8	99%	15%
2003	28	0	28	55%	1977	5	100%	11%
Average	31	0	31	62%		31		62%
Maximum	50	0	50	100%		50		100%
Minimum	5	0	5	11%		5		11%

Table B.18. Empire West Side ID: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	2	0	2	77%	1938	2	0%	100%
1923	1	0	1	63%	1938	2	1%	100%
1924	0	0	0	20%	1938	2	2%	100%
1925	1	0	1	41%	1938	2	4%	100%
1926	1	0	1	52%	1938	2	5%	100%
1927	1	0	1	70%	1938	2	6%	100%
1928	2	0	2	77%	1938	2	7%	100%
1929	0	0	0	19%	1952	2	9%	91%
1930	1	0	1	37%	1986	2	10%	89%
1931	1	0	1	27%	1956	2	11%	89%
1932	1	0	1	32%	1943	2	12%	89%
1933	1	0	1	42%	1998	2	14%	88%
1934	0	0	0	22%	1941	2	15%	87%
1935	1	0	1	67%	1974	2	16%	85%
1936	2	0	2	75%	1995	2	17%	85%
1937	1	0	1	75%	1997	2	19%	85%
1938	2	0	2	100%	1978	2	20%	81%
1939	1	0	1	54%	1984	2	21%	79%
1940	1	0	1	65%	1951	2	22%	78%
1941	2	0	2	87%	1973	2	23%	78%
1942	1	0	1	70%	1928	2	25%	77%
1943	2	0	2	89%	1996	2	26%	77%
1944	1	0	1	42%	1922	2	27%	77%
1945	1	0	1	74%	1999	2	28%	77%
1946	1	0	1	68%	1970	2	30%	76%
1947	1	0	1	55%	1936	2	31%	75%
1948	1	0	1	52%	1985	1	32%	75%
1949	1	0	1	38%	1937	1	33%	75%
1950	1	0	1	61%	1945	1	35%	74%
1951	2	0	2	78%	1945	1	36%	74%
1952	2	0	2	91%	2000	1	37%	74%
1953	1	0	1	63%	1975	1	38%	71%
1954	1	0	1	64%	1927	1	40%	70%
1955	1	0	1	42%	1942	1	41%	70%
1956	2	0	2	89%	1971	1	42%	68%
1957	1	0	1	55%	1946	1	43%	68%
1958	2	0	2	100%	1935	1	44%	67%
1959	1	0	1	55%	1965	1	46%	66%
1960	1	0	1	48%	1963	1	47%	66%
1961	1	0	1	42%	1993	1	48%	66%
1962	1	0	1	56%	1940	1	49%	65%
1963	1	0	1	66%	2002	1	51%	64%
1964	1	0	1	64%	1964	1	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	66%	1954	1	53%	64%
1966	1	0	1	63%	1989	1	54%	64%
1967	2	0	2	100%	1953	1	56%	63%
1968	1	0	1	54%	1923	1	57%	63%
1969	2	0	2	100%	1966	1	58%	63%
1970	2	0	2	76%	1950	1	59%	61%
1971	1	0	1	68%	2003	1	60%	58%
1972	1	0	1	52%	1962	1	62%	56%
1973	2	0	2	78%	1981	1	63%	56%
1974	2	0	2	85%	1957	1	64%	55%
1975	1	0	1	71%	1959	1	65%	55%
1976	1	0	1	42%	1947	1	67%	55%
1977	0	0	0	11%	1939	1	68%	54%
1978	2	0	2	81%	1968	1	69%	54%
1979	1	0	1	74%	1948	1	70%	52%
1980	2	0	2	100%	1926	1	72%	52%
1981	1	0	1	56%	1972	1	73%	52%
1982	2	0	2	100%	1960	1	74%	48%
1983	2	0	2	100%	1994	1	75%	46%
1984	2	0	2	79%	1933	1	77%	42%
1985	1	0	1	75%	1944	1	78%	42%
1986	2	0	2	89%	1955	1	79%	42%
1987	0	0	0	21%	1976	1	80%	42%
1988	0	0	0	21%	1961	1	81%	42%
1989	1	0	1	64%	1925	1	83%	41%
1990	0	0	0	24%	1949	1	84%	38%
1991	0	0	0	15%	1930	1	85%	37%
1992	0	0	0	24%	1932	1	86%	32%
1993	1	0	1	66%	2001	1	88%	31%
1994	1	0	1	46%	1931	1	89%	27%
1995	2	0	2	85%	1990	0	90%	24%
1996	2	0	2	77%	1992	0	91%	24%
1997	2	0	2	85%	1934	0	93%	22%
1998	2	0	2	88%	1988	0	94%	21%
1999	2	0	2	77%	1987	0	95%	21%
2000	1	0	1	74%	1924	0	96%	20%
2001	1	0	1	31%	1929	0	98%	19%
2002	1	0	1	64%	1991	0	99%	15%
2003	1	0	1	58%	1977	0	100%	11%
Average	1	0	1	62%		1		62%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	11%		0		11%

Table B.19. Kern County WA-AG: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	651	0	651	77%	1980	848	0%	100%
1923	538	0	538	63%	1958	848	1%	100%
1924	195	0	195	23%	1958	848	2%	100%
1925	349	0	349	41%	1938	848	4%	100%
1926	437	0	437	52%	1938	848	5%	100%
1927	591	0	591	70%	1938	848	6%	100%
1928	654	0	654	77%	1938	848	7%	100%
1929	190	0	190	22%	1952	769	9%	91%
1930	313	0	313	37%	1986	755	10%	89%
1931	272	0	272	32%	1956	753	11%	89%
1932	273	0	273	32%	1943	751	12%	89%
1933	332	0	332	39%	1998	746	14%	88%
1934	216	0	216	25%	1941	741	15%	87%
1935	570	0	570	67%	1974	722	16%	85%
1936	640	0	640	75%	1997	718	17%	85%
1937	633	0	633	75%	1995	696	19%	82%
1938	848	0	848	100%	1978	686	20%	81%
1939	336	0	336	40%	1984	667	21%	79%
1940	549	0	549	65%	1951	665	22%	78%
1941	741	0	741	87%	1973	664	23%	78%
1942	590	0	590	70%	1928	654	25%	77%
1943	751	0	751	89%	1996	653	26%	77%
1944	358	0	358	42%	1922	651	27%	77%
1945	629	0	629	74%	1999	649	28%	77%
1946	577	0	577	68%	1970	643	30%	76%
1947	442	0	442	52%	1936	640	31%	75%
1948	439	0	439	52%	1985	635	32%	75%
1949	325	0	325	38%	1937	633	33%	75%
1950	514	0	514	61%	1945	629	35%	74%
1951	665	0	665	78%	1945	629	36%	74%
1952	769	0	769	91%	2000	628	37%	74%
1953	538	0	538	63%	1975	603	38%	71%
1954	542	0	542	64%	1927	591	40%	70%
1955	356	0	356	42%	1942	590	41%	70%
1956	753	0	753	89%	1971	581	42%	68%
1957	467	0	467	55%	1946	577	43%	68%
1958	848	0	848	100%	1935	570	44%	67%
1959	466	0	466	55%	1965	563	46%	66%
1960	411	0	411	48%	1963	560	47%	66%
1961	326	0	326	38%	1993	558	48%	66%
1962	475	0	475	56%	1940	549	49%	65%
1963	560	0	560	66%	1954	542	51%	64%
1964	526	0	526	62%	1989	539	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	563	0	563	66%	1953	538	53%	63%
1966	537	0	537	63%	1923	538	54%	63%
1967	848	0	848	100%	1966	537	56%	63%
1968	454	0	454	54%	1964	526	57%	62%
1969	848	0	848	100%	2003	521	58%	61%
1970	643	0	643	76%	1950	514	59%	61%
1971	581	0	581	68%	1962	475	60%	56%
1972	437	0	437	52%	1981	473	62%	56%
1973	664	0	664	78%	1957	467	63%	55%
1974	722	0	722	85%	1959	466	64%	55%
1975	603	0	603	71%	1968	454	65%	54%
1976	354	0	354	42%	1947	442	67%	52%
1977	90	0	90	11%	1948	439	68%	52%
1978	686	0	686	81%	1926	437	69%	52%
1979	629	0	629	74%	1972	437	70%	52%
1980	848	0	848	100%	1960	411	72%	48%
1981	473	0	473	56%	1944	358	73%	42%
1982	848	0	848	100%	1955	356	74%	42%
1983	848	0	848	100%	1976	354	75%	42%
1984	667	0	667	79%	1925	349	77%	41%
1985	635	0	635	75%	2002	340	78%	40%
1986	755	0	755	89%	1939	336	79%	40%
1987	182	0	182	21%	1994	336	80%	40%
1988	182	0	182	21%	1933	332	81%	39%
1989	539	0	539	64%	1961	326	83%	38%
1990	204	0	204	24%	1949	325	84%	38%
1991	127	0	127	15%	1930	313	85%	37%
1992	204	0	204	24%	1932	273	86%	32%
1993	558	0	558	66%	1931	272	88%	32%
1994	336	0	336	40%	2001	266	89%	31%
1995	696	0	696	82%	1934	216	90%	25%
1996	653	0	653	77%	1990	204	91%	24%
1997	718	0	718	85%	1992	204	93%	24%
1998	746	0	746	88%	1924	195	94%	23%
1999	649	0	649	77%	1929	190	95%	22%
2000	628	0	628	74%	1988	182	96%	21%
2001	266	0	266	31%	1987	182	98%	21%
2002	340	0	340	40%	1991	127	99%	15%
2003	521	0	521	61%	1977	90	100%	11%
Average	524	0	524	62%		524		62%
Maximum	848	0	848	100%		848		100%
Minimum	90	0	90	11%		90		11%

Table B.20. Kern County WA-MI: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	103	0	103	77%	1938	135	0%	100%
1923	85	0	85	63%	1938	135	1%	100%
1924	32	0	32	24%	1958	135	2%	100%
1925	55	0	55	41%	1958	135	4%	100%
1926	69	0	69	52%	1958	135	5%	100%
1927	94	0	94	70%	1958	135	6%	100%
1928	104	0	104	77%	1969	135	7%	100%
1929	31	0	31	23%	1952	122	9%	91%
1930	50	0	50	37%	1986	120	10%	89%
1931	45	0	45	33%	1956	119	11%	89%
1932	43	0	43	32%	1943	119	12%	89%
1933	40	0	40	29%	1998	118	14%	88%
1934	35	0	35	26%	1941	118	15%	87%
1935	90	0	90	67%	1974	115	16%	85%
1936	102	0	102	75%	1997	114	17%	85%
1937	101	0	101	75%	1978	109	19%	81%
1938	135	0	135	100%	1995	108	20%	80%
1939	62	0	62	46%	1984	106	21%	79%
1940	87	0	87	65%	1951	106	22%	78%
1941	118	0	118	87%	1973	105	23%	78%
1942	94	0	94	70%	1928	104	25%	77%
1943	119	0	119	89%	1996	104	26%	77%
1944	57	0	57	42%	1922	103	27%	77%
1945	100	0	100	74%	1999	103	28%	77%
1946	92	0	92	68%	1970	102	30%	76%
1947	73	0	73	55%	1936	102	31%	75%
1948	70	0	70	52%	1985	101	32%	75%
1949	52	0	52	38%	1937	101	33%	75%
1950	82	0	82	61%	1945	100	35%	74%
1951	106	0	106	78%	1979	100	36%	74%
1952	122	0	122	91%	2000	100	37%	74%
1953	85	0	85	63%	1975	96	38%	71%
1954	86	0	86	64%	1927	94	40%	70%
1955	57	0	57	42%	1942	94	41%	70%
1956	119	0	119	89%	1971	92	42%	68%
1957	74	0	74	55%	1946	92	43%	68%
1958	135	0	135	100%	1935	90	44%	67%
1959	74	0	74	55%	1965	89	46%	66%
1960	65	0	65	48%	1963	89	47%	66%
1961	48	0	48	36%	1993	89	48%	66%
1962	75	0	75	56%	1940	87	49%	65%
1963	89	0	89	66%	1954	86	51%	64%
1964	71	0	71	53%	1989	85	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	89	0	89	66%	1953	85	53%	63%
1966	85	0	85	63%	1923	85	54%	63%
1967	135	0	135	100%	1966	85	56%	63%
1968	72	0	72	54%	2003	82	57%	61%
1969	135	0	135	100%	1950	82	58%	61%
1970	102	0	102	76%	1962	75	59%	56%
1971	92	0	92	68%	1981	75	60%	56%
1972	69	0	69	52%	1957	74	62%	55%
1973	105	0	105	78%	1959	74	63%	55%
1974	115	0	115	85%	1947	73	64%	55%
1975	96	0	96	71%	1968	72	65%	54%
1976	56	0	56	42%	1964	71	67%	53%
1977	14	0	14	11%	1948	70	68%	52%
1978	109	0	109	81%	1926	69	69%	52%
1979	100	0	100	74%	1972	69	70%	52%
1980	135	0	135	100%	1960	65	72%	48%
1981	75	0	75	56%	1939	62	73%	46%
1982	135	0	135	100%	1994	62	74%	46%
1983	135	0	135	100%	2002	58	75%	43%
1984	106	0	106	79%	1944	57	77%	42%
1985	101	0	101	75%	1955	57	78%	42%
1986	120	0	120	89%	1976	56	79%	42%
1987	29	0	29	21%	1925	55	80%	41%
1988	29	0	29	21%	1949	52	81%	38%
1989	85	0	85	64%	1930	50	83%	37%
1990	32	0	32	24%	1961	48	84%	36%
1991	20	0	20	15%	1931	45	85%	33%
1992	32	0	32	24%	1932	43	86%	32%
1993	89	0	89	66%	2001	42	88%	31%
1994	62	0	62	46%	1933	40	89%	29%
1995	108	0	108	80%	1934	35	90%	26%
1996	104	0	104	77%	1990	32	91%	24%
1997	114	0	114	85%	1992	32	93%	24%
1998	118	0	118	88%	1924	32	94%	24%
1999	103	0	103	77%	1929	31	95%	23%
2000	100	0	100	74%	1988	29	96%	21%
2001	42	0	42	31%	1987	29	98%	21%
2002	58	0	58	43%	1991	20	99%	15%
2003	82	0	82	61%	1977	14	100%	11%
Average	83	0	83	62%		83		62%
Maximum	135	0	135	100%		135		100%
Minimum	14	0	14	11%		14		11%

Table B.21. Littlerock Creek ID: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	2	0	2	77%	1938	2	0%	100%
1923	1	0	1	63%	1938	2	1%	100%
1924	1	0	1	24%	1938	2	2%	100%
1925	1	0	1	41%	1958	2	4%	100%
1926	1	0	1	52%	1958	2	5%	100%
1927	2	0	2	70%	1958	2	6%	100%
1928	2	0	2	77%	1958	2	7%	100%
1929	1	0	1	23%	1952	2	9%	91%
1930	1	0	1	37%	1986	2	10%	89%
1931	1	0	1	33%	1956	2	11%	89%
1932	1	0	1	32%	1943	2	12%	89%
1933	1	0	1	29%	1998	2	14%	88%
1934	1	0	1	26%	1941	2	15%	87%
1935	2	0	2	67%	1974	2	16%	85%
1936	2	0	2	75%	1995	2	17%	85%
1937	2	0	2	75%	1997	2	19%	85%
1938	2	0	2	100%	1978	2	20%	81%
1939	1	0	1	37%	1984	2	21%	79%
1940	1	0	1	65%	1951	2	22%	78%
1941	2	0	2	87%	1973	2	23%	78%
1942	2	0	2	70%	1928	2	25%	77%
1943	2	0	2	89%	1996	2	26%	77%
1944	1	0	1	42%	1922	2	27%	77%
1945	2	0	2	74%	1999	2	28%	77%
1946	2	0	2	68%	1970	2	30%	76%
1947	1	0	1	55%	1936	2	31%	75%
1948	1	0	1	52%	1985	2	32%	75%
1949	1	0	1	38%	1937	2	33%	75%
1950	1	0	1	61%	1979	2	35%	74%
1951	2	0	2	78%	1945	2	36%	74%
1952	2	0	2	91%	2000	2	37%	74%
1953	1	0	1	63%	1975	2	38%	71%
1954	1	0	1	64%	1927	2	40%	70%
1955	1	0	1	42%	1942	2	41%	70%
1956	2	0	2	89%	1971	2	42%	68%
1957	1	0	1	55%	1946	2	43%	68%
1958	2	0	2	100%	1935	2	44%	67%
1959	1	0	1	55%	1965	2	46%	66%
1960	1	0	1	48%	1963	2	47%	66%
1961	1	0	1	28%	1993	2	48%	66%
1962	1	0	1	56%	1940	1	49%	65%
1963	2	0	2	66%	1954	1	51%	64%
1964	1	0	1	51%	2003	1	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	66%	1989	1	53%	64%
1966	1	0	1	63%	1953	1	54%	63%
1967	2	0	2	100%	1923	1	56%	63%
1968	1	0	1	54%	1966	1	57%	63%
1969	2	0	2	100%	1950	1	58%	61%
1970	2	0	2	76%	1962	1	59%	56%
1971	2	0	2	68%	1981	1	60%	56%
1972	1	0	1	52%	1957	1	62%	55%
1973	2	0	2	78%	1959	1	63%	55%
1974	2	0	2	85%	1947	1	64%	55%
1975	2	0	2	71%	1968	1	65%	54%
1976	1	0	1	42%	1948	1	67%	52%
1977	0	0	0	11%	1926	1	68%	52%
1978	2	0	2	81%	1972	1	69%	52%
1979	2	0	2	74%	1964	1	70%	51%
1980	2	0	2	100%	2002	1	72%	50%
1981	1	0	1	56%	1960	1	73%	48%
1982	2	0	2	100%	1994	1	74%	46%
1983	2	0	2	100%	1944	1	75%	42%
1984	2	0	2	79%	1955	1	77%	42%
1985	2	0	2	75%	1976	1	78%	42%
1986	2	0	2	89%	1925	1	79%	41%
1987	0	0	0	21%	1949	1	80%	38%
1988	0	0	0	21%	1939	1	81%	37%
1989	1	0	1	64%	1930	1	83%	37%
1990	1	0	1	24%	1931	1	84%	33%
1991	0	0	0	15%	1932	1	85%	32%
1992	1	0	1	24%	2001	1	86%	31%
1993	2	0	2	66%	1933	1	88%	29%
1994	1	0	1	46%	1961	1	89%	28%
1995	2	0	2	85%	1934	1	90%	26%
1996	2	0	2	77%	1990	1	91%	24%
1997	2	0	2	85%	1992	1	93%	24%
1998	2	0	2	88%	1924	1	94%	24%
1999	2	0	2	77%	1929	1	95%	23%
2000	2	0	2	74%	1988	0	96%	21%
2001	1	0	1	31%	1987	0	98%	21%
2002	1	0	1	50%	1991	0	99%	15%
2003	1	0	1	64%	1977	0	100%	11%
Average	1	0	1	62%		1		62%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	11%		0		11%

Table B.22. Metropolitan WDSC: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1,314	0	1,314	69%	1983	1,851	0%	97%
1923	1,152	154	1,306	68%	1938	1,799	1%	94%
1924	454	57	511	27%	1980	1,741	2%	91%
1925	786	0	786	41%	1952	1,704	4%	89%
1926	986	0	986	52%	1967	1,704	5%	89%
1927	1,192	0	1,192	62%	1998	1,666	6%	87%
1928	1,320	138	1,457	76%	1982	1,655	7%	87%
1929	443	153	596	31%	1969	1,655	9%	87%
1930	705	0	705	37%	1974	1,611	10%	84%
1931	617	0	617	32%	1997	1,602	11%	84%
1932	616	0	616	32%	1941	1,570	12%	82%
1933	811	0	811	42%	1986	1,553	14%	81%
1934	502	0	502	26%	1943	1,530	15%	80%
1935	1,172	0	1,172	61%	1956	1,519	16%	79%
1936	1,291	111	1,402	73%	1958	1,519	17%	79%
1937	1,278	131	1,409	74%	1970	1,496	19%	78%
1938	1,651	148	1,799	94%	1999	1,484	20%	78%
1939	976	199	1,175	61%	1928	1,457	21%	76%
1940	1,158	0	1,158	61%	1984	1,436	22%	75%
1941	1,493	77	1,570	82%	1979	1,430	23%	75%
1942	1,191	37	1,228	64%	2000	1,419	25%	74%
1943	1,392	137	1,530	80%	1985	1,415	26%	74%
1944	806	75	881	46%	1937	1,409	27%	74%
1945	1,270	0	1,270	66%	1936	1,402	28%	73%
1946	1,176	147	1,323	69%	1975	1,385	30%	72%
1947	1,043	122	1,165	61%	1978	1,384	31%	72%
1948	988	0	988	52%	1951	1,354	32%	71%
1949	733	0	733	38%	1973	1,340	33%	70%
1950	1,134	0	1,134	59%	1953	1,329	35%	70%
1951	1,342	11	1,354	71%	1996	1,326	36%	69%
1952	1,549	155	1,704	89%	1971	1,324	37%	69%
1953	1,150	180	1,329	70%	1946	1,323	38%	69%
1954	1,153	61	1,214	64%	1922	1,314	40%	69%
1955	803	65	869	45%	1923	1,306	41%	68%
1956	1,519	0	1,519	79%	1995	1,302	42%	68%
1957	1,053	176	1,229	64%	1945	1,270	43%	66%
1958	1,519	0	1,519	79%	1964	1,260	44%	66%
1959	1,051	81	1,132	59%	1966	1,254	46%	66%
1960	927	0	927	48%	1957	1,229	47%	64%
1961	797	0	797	42%	1942	1,228	48%	64%
1962	1,071	0	1,071	56%	1954	1,214	49%	64%
1963	1,164	0	1,164	61%	1968	1,200	51%	63%
1964	1,163	96	1,260	66%	1927	1,192	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1,166	8	1,174	61%	1939	1,175	53%	61%
1966	1,151	102	1,254	66%	1965	1,174	54%	61%
1967	1,649	56	1,704	89%	1935	1,172	56%	61%
1968	1,024	177	1,200	63%	1947	1,165	57%	61%
1969	1,655	0	1,655	87%	1993	1,164	58%	61%
1970	1,297	199	1,496	78%	1963	1,164	59%	61%
1971	1,175	150	1,324	69%	1989	1,161	60%	61%
1972	986	132	1,118	58%	1940	1,158	62%	61%
1973	1,340	0	1,340	70%	1981	1,154	63%	60%
1974	1,456	155	1,611	84%	1950	1,134	64%	59%
1975	1,217	169	1,385	72%	1959	1,132	65%	59%
1976	798	140	938	49%	2003	1,121	67%	59%
1977	204	0	204	11%	1972	1,118	68%	58%
1978	1,384	0	1,384	72%	2002	1,115	69%	58%
1979	1,270	160	1,430	75%	1962	1,071	70%	56%
1980	1,614	126	1,741	91%	1948	988	72%	52%
1981	1,066	88	1,154	60%	1926	986	73%	52%
1982	1,655	0	1,655	87%	1994	967	74%	51%
1983	1,681	170	1,851	97%	1976	938	75%	49%
1984	1,346	90	1,436	75%	1960	927	77%	48%
1985	1,281	134	1,415	74%	1944	881	78%	46%
1986	1,405	148	1,553	81%	1955	869	79%	45%
1987	410	61	471	25%	1933	811	80%	42%
1988	410	0	410	21%	1961	797	81%	42%
1989	1,161	0	1,161	61%	1925	786	83%	41%
1990	459	32	491	26%	2001	745	84%	39%
1991	287	0	287	15%	1949	733	85%	38%
1992	459	0	459	24%	1930	705	86%	37%
1993	1,164	0	1,164	61%	1931	617	88%	32%
1994	875	92	967	51%	1932	616	89%	32%
1995	1,302	0	1,302	68%	1929	596	90%	31%
1996	1,318	8	1,326	69%	1924	511	91%	27%
1997	1,450	152	1,602	84%	1934	502	93%	26%
1998	1,499	168	1,666	87%	1990	491	94%	26%
1999	1,310	174	1,484	78%	1987	471	95%	25%
2000	1,267	151	1,419	74%	1992	459	96%	24%
2001	599	146	745	39%	1988	410	98%	21%
2002	1,115	0	1,115	58%	1991	287	99%	15%
2003	1,113	8	1,121	59%	1977	204	100%	11%
Average	1,097	70	1,166	61%		1,166		61%
Maximum	1,681	199	1,851	97%		1,851		97%
Minimum	204	0	204	11%		204		11%

Table B.23. Mojave WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	64	0	64	77%	1980	83	0%	100%
1923	53	0	53	63%	1967	83	1%	100%
1924	20	0	20	24%	1938	83	2%	100%
1925	34	0	34	41%	1938	83	4%	100%
1926	43	0	43	52%	1938	83	5%	100%
1927	58	0	58	70%	1938	83	6%	100%
1928	64	0	64	77%	1938	83	7%	100%
1929	19	0	19	23%	1995	75	9%	91%
1930	31	0	31	37%	1952	75	10%	91%
1931	27	0	27	33%	1986	74	11%	89%
1932	27	0	27	32%	1956	73	12%	89%
1933	35	0	35	42%	1943	73	14%	89%
1934	22	0	22	26%	1998	73	15%	88%
1935	56	0	56	67%	1941	72	16%	87%
1936	62	0	62	75%	1974	70	17%	85%
1937	62	0	62	75%	1997	70	19%	85%
1938	83	0	83	100%	1978	67	20%	81%
1939	45	0	45	54%	1984	65	21%	79%
1940	54	0	54	65%	1951	65	22%	78%
1941	72	0	72	87%	1973	65	23%	78%
1942	58	0	58	70%	1928	64	25%	77%
1943	73	0	73	89%	1996	64	26%	77%
1944	35	0	35	42%	1922	64	27%	77%
1945	61	0	61	74%	1999	63	28%	77%
1946	56	0	56	68%	1970	63	30%	76%
1947	45	0	45	55%	1936	62	31%	75%
1948	43	0	43	52%	1985	62	32%	75%
1949	32	0	32	38%	1937	62	33%	75%
1950	50	0	50	61%	1945	61	35%	74%
1951	65	0	65	78%	1979	61	36%	74%
1952	75	0	75	91%	2000	61	37%	74%
1953	53	0	53	63%	1975	59	38%	71%
1954	53	0	53	64%	1927	58	40%	70%
1955	35	0	35	42%	1942	58	41%	70%
1956	73	0	73	89%	1971	57	42%	68%
1957	46	0	46	55%	1946	56	43%	68%
1958	83	0	83	100%	1935	56	44%	67%
1959	46	0	46	55%	1965	55	46%	66%
1960	40	0	40	48%	1963	55	47%	66%
1961	35	0	35	42%	1993	54	48%	66%
1962	46	0	46	56%	1940	54	49%	65%
1963	55	0	55	66%	2002	53	51%	64%
1964	53	0	53	64%	1964	53	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	55	0	55	66%	1954	53	53%	64%
1966	52	0	52	63%	1989	53	54%	64%
1967	83	0	83	100%	1953	53	56%	63%
1968	44	0	44	54%	1923	53	57%	63%
1969	83	0	83	100%	1966	52	58%	63%
1970	63	0	63	76%	2003	51	59%	61%
1971	57	0	57	68%	1950	50	60%	61%
1972	43	0	43	52%	1962	46	62%	56%
1973	65	0	65	78%	1981	46	63%	56%
1974	70	0	70	85%	1957	46	64%	55%
1975	59	0	59	71%	1959	46	65%	55%
1976	35	0	35	42%	1947	45	67%	55%
1977	9	0	9	11%	1939	45	68%	54%
1978	67	0	67	81%	1968	44	69%	54%
1979	61	0	61	74%	1948	43	70%	52%
1980	83	0	83	100%	1926	43	72%	52%
1981	46	0	46	56%	1972	43	73%	52%
1982	83	0	83	100%	1960	40	74%	48%
1983	83	0	83	100%	1994	38	75%	46%
1984	65	0	65	79%	1933	35	77%	42%
1985	62	0	62	75%	1944	35	78%	42%
1986	74	0	74	89%	1955	35	79%	42%
1987	18	0	18	21%	1976	35	80%	42%
1988	18	0	18	21%	1961	35	81%	42%
1989	53	0	53	64%	1925	34	83%	41%
1990	20	0	20	24%	1949	32	84%	38%
1991	12	0	12	15%	1930	31	85%	37%
1992	20	0	20	24%	1931	27	86%	33%
1993	54	0	54	66%	1932	27	88%	32%
1994	38	0	38	46%	2001	26	89%	31%
1995	75	0	75	91%	1934	22	90%	26%
1996	64	0	64	77%	1990	20	91%	24%
1997	70	0	70	85%	1992	20	93%	24%
1998	73	0	73	88%	1924	20	94%	24%
1999	63	0	63	77%	1929	19	95%	23%
2000	61	0	61	74%	1988	18	96%	21%
2001	26	0	26	31%	1987	18	98%	21%
2002	53	0	53	64%	1991	12	99%	15%
2003	51	0	51	61%	1977	9	100%	11%
Average	52	0	52	63%		52		63%
Maximum	83	0	83	100%		83		100%
Minimum	9	0	9	11%		9		11%

Table B.24. Napa County FC&WCD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	99%	1938	29	0%	100%
1923	27	0	27	94%	1938	29	1%	100%
1924	10	0	10	33%	1938	29	2%	100%
1925	20	0	20	68%	1938	29	4%	100%
1926	20	0	20	68%	1941	29	5%	100%
1927	29	0	29	100%	1941	29	6%	100%
1928	29	0	29	99%	1941	29	7%	100%
1929	10	0	10	33%	1941	29	9%	100%
1930	20	0	20	68%	1941	29	10%	100%
1931	10	0	10	33%	1927	29	11%	100%
1932	20	0	20	68%	1927	29	12%	100%
1933	10	0	10	33%	1927	29	14%	100%
1934	10	0	10	33%	1927	29	15%	100%
1935	27	0	27	94%	1927	29	16%	100%
1936	27	0	27	94%	1942	29	17%	100%
1937	27	0	27	94%	1942	29	19%	100%
1938	29	0	29	100%	1942	29	20%	100%
1939	20	0	20	68%	1942	29	21%	100%
1940	29	0	29	99%	1942	29	22%	100%
1941	29	0	29	100%	1942	29	23%	100%
1942	29	0	29	100%	1942	29	25%	100%
1943	29	0	29	100%	1942	29	26%	100%
1944	20	0	20	68%	1942	29	27%	100%
1945	27	0	27	94%	1942	29	28%	100%
1946	27	0	27	94%	1942	29	30%	100%
1947	20	0	20	68%	1942	29	31%	100%
1948	27	0	27	94%	2003	29	32%	99%
1949	20	0	20	68%	1922	29	33%	99%
1950	27	0	27	94%	1922	29	35%	99%
1951	29	0	29	99%	1922	29	36%	99%
1952	29	0	29	100%	1940	29	37%	99%
1953	29	0	29	100%	1940	29	38%	99%
1954	29	0	29	99%	1940	29	40%	99%
1955	20	0	20	68%	1940	29	41%	99%
1956	29	0	29	100%	1928	29	42%	99%
1957	29	0	29	99%	1928	29	43%	99%
1958	29	0	29	100%	1928	29	44%	99%
1959	27	0	27	94%	1928	29	46%	99%
1960	20	0	20	68%	1936	27	47%	94%
1961	20	0	20	68%	1936	27	48%	94%
1962	27	0	27	94%	1936	27	49%	94%
1963	29	0	29	100%	1959	27	51%	94%
1964	20	0	20	68%	1959	27	52%	94%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	100%	1959	27	53%	94%
1966	27	0	27	94%	1959	27	54%	94%
1967	29	0	29	100%	1923	27	56%	94%
1968	27	0	27	94%	1923	27	57%	94%
1969	29	0	29	100%	1923	27	58%	94%
1970	29	0	29	100%	1945	27	59%	94%
1971	29	0	29	100%	1945	27	60%	94%
1972	27	0	27	94%	1945	27	62%	94%
1973	29	0	29	99%	1945	27	63%	94%
1974	29	0	29	100%	1925	20	64%	68%
1975	29	0	29	100%	1925	20	65%	68%
1976	10	0	10	33%	1925	20	67%	68%
1977	10	0	10	33%	1925	20	68%	68%
1978	29	0	29	99%	1925	20	69%	68%
1979	27	0	27	94%	1925	20	70%	68%
1980	29	0	29	99%	1925	20	72%	68%
1981	20	0	20	68%	1926	20	73%	68%
1982	29	0	29	100%	1926	20	74%	68%
1983	29	0	29	100%	1926	20	75%	68%
1984	29	0	29	100%	1939	20	77%	68%
1985	20	0	20	68%	1939	20	78%	68%
1986	29	0	29	100%	1939	20	79%	68%
1987	20	0	20	68%	1939	20	80%	68%
1988	10	0	10	33%	1939	20	81%	68%
1989	20	0	20	68%	1939	20	83%	68%
1990	10	0	10	33%	1939	20	84%	68%
1991	10	0	10	33%	1939	20	85%	68%
1992	10	0	10	33%	1924	10	86%	33%
1993	29	0	29	99%	1924	10	88%	33%
1994	10	0	10	33%	1924	10	89%	33%
1995	29	0	29	100%	1924	10	90%	33%
1996	29	0	29	100%	1924	10	91%	33%
1997	29	0	29	100%	1924	10	93%	33%
1998	29	0	29	100%	1931	10	94%	33%
1999	29	0	29	100%	1931	10	95%	33%
2000	29	0	29	99%	1931	10	96%	33%
2001	20	0	20	68%	1931	10	98%	33%
2002	20	0	20	68%	1931	10	99%	33%
2003	29	0	29	99%	1977	10	100%	33%
Average	24	0	24	82%		24		82%
Maximum	29	0	29	100%		29		100%
Minimum	10	0	10	33%		10		33%

Table B.25. Oak Flat WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	77%	1967	6	0%	100%
1923	4	0	4	63%	1967	6	1%	100%
1924	1	0	1	24%	1967	6	2%	100%
1925	2	0	2	41%	1938	6	4%	100%
1926	3	0	3	52%	1938	6	5%	100%
1927	4	0	4	70%	1938	6	6%	100%
1928	4	0	4	77%	1958	6	7%	100%
1929	1	0	1	20%	1952	5	9%	91%
1930	2	0	2	37%	1995	5	10%	90%
1931	2	0	2	28%	1986	5	11%	89%
1932	2	0	2	32%	1956	5	12%	89%
1933	2	0	2	35%	1943	5	14%	89%
1934	1	0	1	22%	1998	5	15%	88%
1935	4	0	4	67%	1941	5	16%	87%
1936	4	0	4	75%	1974	5	17%	85%
1937	4	0	4	75%	1997	5	19%	85%
1938	6	0	6	100%	1978	5	20%	81%
1939	3	0	3	45%	1984	4	21%	79%
1940	4	0	4	65%	1951	4	22%	78%
1941	5	0	5	87%	1973	4	23%	78%
1942	4	0	4	70%	1928	4	25%	77%
1943	5	0	5	89%	1996	4	26%	77%
1944	2	0	2	42%	1922	4	27%	77%
1945	4	0	4	74%	1999	4	28%	77%
1946	4	0	4	68%	1970	4	30%	76%
1947	3	0	3	55%	1936	4	31%	75%
1948	3	0	3	52%	1985	4	32%	75%
1949	2	0	2	38%	1937	4	33%	75%
1950	3	0	3	61%	1945	4	35%	74%
1951	4	0	4	78%	1945	4	36%	74%
1952	5	0	5	91%	2000	4	37%	74%
1953	4	0	4	63%	1975	4	38%	71%
1954	4	0	4	64%	1927	4	40%	70%
1955	2	0	2	42%	1942	4	41%	70%
1956	5	0	5	89%	1971	4	42%	68%
1957	3	0	3	55%	1946	4	43%	68%
1958	6	0	6	100%	1935	4	44%	67%
1959	3	0	3	55%	1965	4	46%	66%
1960	3	0	3	48%	1963	4	47%	66%
1961	2	0	2	32%	1993	4	48%	66%
1962	3	0	3	56%	1940	4	49%	65%
1963	4	0	4	66%	1954	4	51%	64%
1964	3	0	3	59%	1989	4	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	4	0	4	66%	1953	4	53%	63%
1966	4	0	4	63%	1923	4	54%	63%
1967	6	0	6	100%	1966	4	56%	63%
1968	3	0	3	54%	1950	3	57%	61%
1969	6	0	6	100%	1964	3	58%	59%
1970	4	0	4	76%	2002	3	59%	59%
1971	4	0	4	68%	2003	3	60%	58%
1972	3	0	3	52%	1962	3	62%	56%
1973	4	0	4	78%	1981	3	63%	56%
1974	5	0	5	85%	1957	3	64%	55%
1975	4	0	4	71%	1959	3	65%	55%
1976	2	0	2	42%	1947	3	67%	55%
1977	1	0	1	11%	1968	3	68%	54%
1978	5	0	5	81%	1948	3	69%	52%
1979	4	0	4	74%	1926	3	70%	52%
1980	6	0	6	100%	1972	3	72%	52%
1981	3	0	3	56%	1960	3	73%	48%
1982	6	0	6	100%	1939	3	74%	45%
1983	6	0	6	100%	1994	2	75%	43%
1984	4	0	4	79%	1944	2	77%	42%
1985	4	0	4	75%	1955	2	78%	42%
1986	5	0	5	89%	1976	2	79%	42%
1987	1	0	1	21%	1925	2	80%	41%
1988	1	0	1	21%	1949	2	81%	38%
1989	4	0	4	64%	1930	2	83%	37%
1990	1	0	1	24%	1933	2	84%	35%
1991	1	0	1	15%	1932	2	85%	32%
1992	1	0	1	23%	1961	2	86%	32%
1993	4	0	4	66%	2001	2	88%	31%
1994	2	0	2	43%	1931	2	89%	28%
1995	5	0	5	90%	1990	1	90%	24%
1996	4	0	4	77%	1924	1	91%	24%
1997	5	0	5	85%	1992	1	93%	23%
1998	5	0	5	88%	1934	1	94%	22%
1999	4	0	4	77%	1988	1	95%	21%
2000	4	0	4	74%	1987	1	96%	21%
2001	2	0	2	31%	1929	1	98%	20%
2002	3	0	3	59%	1991	1	99%	15%
2003	3	0	3	58%	1977	1	100%	11%
Average	4	0	4	62%		4		62%
Maximum	6	0	6	100%		6		100%
Minimum	1	0	1	11%		1		11%

Table B.26. Palmdale WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	16	0	16	77%	1967	21	0%	100%
1923	14	0	14	63%	1938	21	1%	100%
1924	5	0	5	24%	1938	21	2%	100%
1925	9	0	9	41%	1938	21	4%	100%
1926	11	0	11	52%	1938	21	5%	100%
1927	15	0	15	70%	1958	21	6%	100%
1928	16	0	16	77%	1958	21	7%	100%
1929	5	0	5	23%	1952	19	9%	91%
1930	8	0	8	37%	1986	19	10%	89%
1931	7	0	7	33%	1956	19	11%	89%
1932	7	0	7	32%	1943	19	12%	89%
1933	5	0	5	26%	1998	19	14%	88%
1934	6	0	6	26%	1941	19	15%	87%
1935	14	0	14	67%	1995	18	16%	85%
1936	16	0	16	75%	1974	18	17%	85%
1937	16	0	16	75%	1997	18	19%	85%
1938	21	0	21	100%	1978	17	20%	81%
1939	7	0	7	35%	1984	17	21%	79%
1940	14	0	14	65%	1951	17	22%	78%
1941	19	0	19	87%	1973	17	23%	78%
1942	15	0	15	70%	1928	16	25%	77%
1943	19	0	19	89%	1996	16	26%	77%
1944	9	0	9	42%	1922	16	27%	77%
1945	16	0	16	74%	1999	16	28%	77%
1946	14	0	14	68%	1970	16	30%	76%
1947	12	0	12	55%	1936	16	31%	75%
1948	11	0	11	52%	1985	16	32%	75%
1949	8	0	8	38%	1937	16	33%	75%
1950	13	0	13	61%	1945	16	35%	74%
1951	17	0	17	78%	1945	16	36%	74%
1952	19	0	19	91%	2000	16	37%	74%
1953	14	0	14	63%	1975	15	38%	71%
1954	14	0	14	64%	1927	15	40%	70%
1955	9	0	9	42%	1942	15	41%	70%
1956	19	0	19	89%	1971	15	42%	68%
1957	12	0	12	55%	1946	14	43%	68%
1958	21	0	21	100%	1935	14	44%	67%
1959	12	0	12	55%	1965	14	46%	66%
1960	10	0	10	48%	1963	14	47%	66%
1961	5	0	5	25%	2003	14	48%	66%
1962	12	0	12	56%	1993	14	49%	66%
1963	14	0	14	66%	1940	14	51%	65%
1964	10	0	10	49%	1954	14	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	14	0	14	66%	1989	14	53%	64%
1966	13	0	13	63%	1953	14	54%	63%
1967	21	0	21	100%	1923	14	56%	63%
1968	11	0	11	54%	1966	13	57%	63%
1969	21	0	21	100%	1950	13	58%	61%
1970	16	0	16	76%	1962	12	59%	56%
1971	15	0	15	68%	1981	12	60%	56%
1972	11	0	11	52%	1957	12	62%	55%
1973	17	0	17	78%	1959	12	63%	55%
1974	18	0	18	85%	1947	12	64%	55%
1975	15	0	15	71%	1968	11	65%	54%
1976	9	0	9	42%	1948	11	67%	52%
1977	2	0	2	11%	1926	11	68%	52%
1978	17	0	17	81%	1972	11	69%	52%
1979	16	0	16	74%	1964	10	70%	49%
1980	21	0	21	100%	2002	10	72%	49%
1981	12	0	12	56%	1960	10	73%	48%
1982	21	0	21	100%	1994	10	74%	46%
1983	21	0	21	100%	1944	9	75%	42%
1984	17	0	17	79%	1955	9	77%	42%
1985	16	0	16	75%	1976	9	78%	42%
1986	19	0	19	89%	1925	9	79%	41%
1987	5	0	5	21%	1949	8	80%	38%
1988	5	0	5	21%	1930	8	81%	37%
1989	14	0	14	64%	1939	7	83%	35%
1990	5	0	5	24%	1931	7	84%	33%
1991	3	0	3	15%	1932	7	85%	32%
1992	5	0	5	24%	2001	7	86%	31%
1993	14	0	14	66%	1934	6	88%	26%
1994	10	0	10	46%	1933	5	89%	26%
1995	18	0	18	85%	1961	5	90%	25%
1996	16	0	16	77%	1990	5	91%	24%
1997	18	0	18	85%	1992	5	93%	24%
1998	19	0	19	88%	1924	5	94%	24%
1999	16	0	16	77%	1929	5	95%	23%
2000	16	0	16	74%	1988	5	96%	21%
2001	7	0	7	31%	1987	5	98%	21%
2002	10	0	10	49%	1991	3	99%	15%
2003	14	0	14	66%	1977	2	100%	11%
Average	13	0	13	62%		13		62%
Maximum	21	0	21	100%		21		100%
Minimum	2	0	2	11%		2		11%

Table B.27. San Bernardino Valley MWD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	70	0	70	68%	1938	100	0%	97%
1923	62	9	70	69%	1983	100	1%	97%
1924	24	3	28	27%	1980	98	2%	96%
1925	42	0	42	41%	1967	94	4%	92%
1926	53	0	53	52%	1952	91	5%	89%
1927	64	0	64	62%	1958	91	6%	89%
1928	70	8	78	76%	1982	91	7%	89%
1929	24	9	32	32%	1969	91	9%	89%
1930	38	0	38	37%	1998	90	10%	87%
1931	34	0	34	33%	1986	90	11%	87%
1932	33	0	33	32%	1943	89	12%	86%
1933	44	0	44	42%	1974	86	14%	84%
1934	27	0	27	26%	1997	86	15%	84%
1935	63	0	63	61%	1941	84	16%	82%
1936	69	6	75	73%	1995	83	17%	81%
1937	68	7	76	74%	1956	81	19%	79%
1938	91	8	100	97%	1970	80	20%	78%
1939	56	11	67	65%	1999	80	21%	78%
1940	62	0	62	60%	1928	78	22%	76%
1941	80	4	84	82%	1979	77	23%	75%
1942	63	2	65	64%	2000	76	25%	74%
1943	81	8	89	86%	1985	76	26%	74%
1944	43	4	47	46%	1937	76	27%	74%
1945	68	0	68	66%	1936	75	28%	73%
1946	63	8	71	69%	1975	74	30%	72%
1947	56	7	63	61%	1978	74	31%	72%
1948	53	0	53	52%	2003	73	32%	71%
1949	39	0	39	38%	1951	72	33%	70%
1950	61	0	61	59%	1984	72	35%	70%
1951	72	1	72	70%	1953	72	36%	70%
1952	83	9	91	89%	1973	71	37%	70%
1953	61	10	72	70%	1971	71	38%	69%
1954	62	3	65	63%	1946	71	40%	69%
1955	43	4	47	46%	1996	71	41%	69%
1956	81	0	81	79%	1923	70	42%	69%
1957	57	10	66	65%	1922	70	43%	68%
1958	91	0	91	89%	1945	68	44%	66%
1959	56	4	61	59%	1964	68	46%	66%
1960	50	0	50	48%	1966	67	47%	66%
1961	43	0	43	42%	1939	67	48%	65%
1962	57	0	57	56%	1957	66	49%	65%
1963	62	0	62	61%	1942	65	51%	64%
1964	62	5	68	66%	1954	65	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	62	0	63	61%	1968	64	53%	63%
1966	62	6	67	66%	1927	64	54%	62%
1967	91	3	94	92%	1947	63	56%	61%
1968	55	9	64	63%	1965	63	57%	61%
1969	91	0	91	89%	1935	63	58%	61%
1970	69	11	80	78%	2002	62	59%	61%
1971	63	8	71	69%	1993	62	60%	61%
1972	53	7	60	59%	1989	62	62%	61%
1973	71	0	71	70%	1963	62	63%	61%
1974	78	9	86	84%	1981	62	64%	60%
1975	65	10	74	72%	1940	62	65%	60%
1976	43	8	51	49%	1959	61	67%	59%
1977	11	0	11	11%	1950	61	68%	59%
1978	74	0	74	72%	1972	60	69%	59%
1979	68	9	77	75%	1962	57	70%	56%
1980	91	7	98	96%	1948	53	72%	52%
1981	57	5	62	60%	1926	53	73%	52%
1982	91	0	91	89%	1994	52	74%	51%
1983	91	8	100	97%	1976	51	75%	49%
1984	72	0	72	70%	1960	50	77%	48%
1985	68	8	76	74%	1944	47	78%	46%
1986	81	8	90	87%	1955	47	79%	46%
1987	22	3	25	25%	1933	44	80%	42%
1988	22	0	22	21%	1961	43	81%	42%
1989	62	0	62	61%	1925	42	83%	41%
1990	25	2	26	26%	2001	40	84%	39%
1991	15	0	15	15%	1949	39	85%	38%
1992	25	0	25	24%	1930	38	86%	37%
1993	62	0	62	61%	1931	34	88%	33%
1994	47	5	52	51%	1932	33	89%	32%
1995	83	0	83	81%	1929	32	90%	32%
1996	70	0	71	69%	1924	28	91%	27%
1997	77	9	86	84%	1934	27	93%	26%
1998	80	9	90	87%	1990	26	94%	26%
1999	70	10	80	78%	1987	25	95%	25%
2000	68	9	76	74%	1992	25	96%	24%
2001	32	8	40	39%	1988	22	98%	21%
2002	62	0	62	61%	1991	15	99%	15%
2003	73	0	73	71%	1977	11	100%	11%
Average	60	4	63	62%		63		62%
Maximum	91	11	100	97%		100		97%
Minimum	11	0	11	11%		11		11%

Table B.28. San Gabriel Valley MWD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	22	0	22	77%	1983	29	0%	100%
1923	18	0	18	63%	1967	29	1%	100%
1924	7	0	7	24%	1958	29	2%	100%
1925	12	0	12	41%	1958	29	4%	100%
1926	15	0	15	52%	1958	29	5%	100%
1927	20	0	20	70%	1938	29	6%	100%
1928	22	0	22	77%	1938	29	7%	100%
1929	7	0	7	23%	1995	26	9%	91%
1930	11	0	11	37%	1952	26	10%	91%
1931	10	0	10	33%	1986	26	11%	89%
1932	9	0	9	32%	1956	26	12%	89%
1933	12	0	12	42%	1943	26	14%	89%
1934	8	0	8	26%	1998	25	15%	88%
1935	19	0	19	67%	1941	25	16%	87%
1936	22	0	22	75%	1974	25	17%	85%
1937	22	0	22	75%	1997	24	19%	85%
1938	29	0	29	100%	1978	23	20%	81%
1939	16	0	16	54%	1984	23	21%	79%
1940	19	0	19	65%	1951	23	22%	78%
1941	25	0	25	87%	1973	23	23%	78%
1942	20	0	20	70%	1928	22	25%	77%
1943	26	0	26	89%	1996	22	26%	77%
1944	12	0	12	42%	1922	22	27%	77%
1945	21	0	21	74%	1999	22	28%	77%
1946	20	0	20	68%	1970	22	30%	76%
1947	16	0	16	55%	1936	22	31%	75%
1948	15	0	15	52%	1985	22	32%	75%
1949	11	0	11	38%	1937	22	33%	75%
1950	17	0	17	61%	1945	21	35%	74%
1951	23	0	23	78%	1979	21	36%	74%
1952	26	0	26	91%	2000	21	37%	74%
1953	18	0	18	63%	1975	20	38%	71%
1954	18	0	18	64%	1927	20	40%	70%
1955	12	0	12	42%	1942	20	41%	70%
1956	26	0	26	89%	1971	20	42%	68%
1957	16	0	16	55%	1946	20	43%	68%
1958	29	0	29	100%	1935	19	44%	67%
1959	16	0	16	55%	1965	19	46%	66%
1960	14	0	14	48%	1963	19	47%	66%
1961	12	0	12	42%	1993	19	48%	66%
1962	16	0	16	56%	1940	19	49%	65%
1963	19	0	19	66%	2002	18	51%	64%
1964	18	0	18	64%	1964	18	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	19	0	19	66%	1954	18	53%	64%
1966	18	0	18	63%	1989	18	54%	64%
1967	29	0	29	100%	1953	18	56%	63%
1968	15	0	15	54%	1923	18	57%	63%
1969	29	0	29	100%	1966	18	58%	63%
1970	22	0	22	76%	2003	18	59%	62%
1971	20	0	20	68%	1950	17	60%	61%
1972	15	0	15	52%	1962	16	62%	56%
1973	23	0	23	78%	1981	16	63%	56%
1974	25	0	25	85%	1957	16	64%	55%
1975	20	0	20	71%	1959	16	65%	55%
1976	12	0	12	42%	1947	16	67%	55%
1977	3	0	3	11%	1939	16	68%	54%
1978	23	0	23	81%	1968	15	69%	54%
1979	21	0	21	74%	1948	15	70%	52%
1980	29	0	29	100%	1926	15	72%	52%
1981	16	0	16	56%	1972	15	73%	52%
1982	29	0	29	100%	1960	14	74%	48%
1983	29	0	29	100%	1933	12	75%	42%
1984	23	0	23	79%	1944	12	77%	42%
1985	22	0	22	75%	1955	12	78%	42%
1986	26	0	26	89%	1976	12	79%	42%
1987	6	0	6	21%	1961	12	80%	42%
1988	6	0	6	21%	1925	12	81%	41%
1989	18	0	18	64%	1994	11	83%	39%
1990	7	0	7	24%	1949	11	84%	38%
1991	4	0	4	15%	1930	11	85%	37%
1992	7	0	7	24%	1931	10	86%	33%
1993	19	0	19	66%	1932	9	88%	32%
1994	11	0	11	39%	2001	9	89%	31%
1995	26	0	26	91%	1934	8	90%	26%
1996	22	0	22	77%	1990	7	91%	24%
1997	24	0	24	85%	1992	7	93%	24%
1998	25	0	25	88%	1924	7	94%	24%
1999	22	0	22	77%	1929	7	95%	23%
2000	21	0	21	74%	1988	6	96%	21%
2001	9	0	9	31%	1987	6	98%	21%
2002	18	0	18	64%	1991	4	99%	15%
2003	18	0	18	62%	1977	3	100%	11%
Average	18	0	18	62%		18		62%
Maximum	29	0	29	100%		29		100%
Minimum	3	0	3	11%		3		11%

Table B.29. San Geronio Pass WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	13	0	13	77%	1938	17	0%	100%
1923	11	0	11	63%	1938	17	1%	100%
1924	4	0	4	24%	1938	17	2%	100%
1925	7	0	7	41%	1938	17	4%	100%
1926	9	0	9	52%	1938	17	5%	100%
1927	12	0	12	70%	1938	17	6%	100%
1928	13	0	13	77%	1967	17	7%	100%
1929	4	0	4	23%	1995	16	9%	91%
1930	6	0	6	37%	1952	16	10%	91%
1931	6	0	6	33%	1986	15	11%	89%
1932	6	0	6	32%	1956	15	12%	89%
1933	7	0	7	42%	1943	15	14%	89%
1934	5	0	5	26%	1998	15	15%	88%
1935	12	0	12	67%	1941	15	16%	87%
1936	13	0	13	75%	1974	15	17%	85%
1937	13	0	13	75%	1997	15	19%	85%
1938	17	0	17	100%	1978	14	20%	81%
1939	9	0	9	54%	1984	14	21%	79%
1940	11	0	11	65%	1951	14	22%	78%
1941	15	0	15	87%	1973	14	23%	78%
1942	12	0	12	70%	1928	13	25%	77%
1943	15	0	15	89%	1996	13	26%	77%
1944	7	0	7	42%	1922	13	27%	77%
1945	13	0	13	74%	1999	13	28%	77%
1946	12	0	12	68%	1970	13	30%	76%
1947	9	0	9	55%	1936	13	31%	75%
1948	9	0	9	52%	1985	13	32%	75%
1949	7	0	7	38%	1937	13	33%	75%
1950	10	0	10	61%	1945	13	35%	74%
1951	14	0	14	78%	1979	13	36%	74%
1952	16	0	16	91%	2000	13	37%	74%
1953	11	0	11	63%	1975	12	38%	71%
1954	11	0	11	64%	1927	12	40%	70%
1955	7	0	7	42%	1942	12	41%	70%
1956	15	0	15	89%	1971	12	42%	68%
1957	10	0	10	55%	1946	12	43%	68%
1958	17	0	17	100%	1935	12	44%	67%
1959	10	0	10	55%	1965	11	46%	66%
1960	8	0	8	48%	1963	11	47%	66%
1961	7	0	7	42%	1993	11	48%	66%
1962	10	0	10	56%	1940	11	49%	65%
1963	11	0	11	66%	2002	11	51%	64%
1964	11	0	11	64%	1964	11	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	11	0	11	66%	1954	11	53%	64%
1966	11	0	11	63%	1989	11	54%	64%
1967	17	0	17	100%	1953	11	56%	63%
1968	9	0	9	54%	1923	11	57%	63%
1969	17	0	17	100%	1966	11	58%	63%
1970	13	0	13	76%	1950	10	59%	61%
1971	12	0	12	68%	1962	10	60%	56%
1972	9	0	9	52%	1981	10	62%	56%
1973	14	0	14	78%	1957	10	63%	55%
1974	15	0	15	85%	1959	10	64%	55%
1975	12	0	12	71%	1947	9	65%	55%
1976	7	0	7	42%	1939	9	67%	54%
1977	2	0	2	11%	1968	9	68%	54%
1978	14	0	14	81%	1948	9	69%	52%
1979	13	0	13	74%	1926	9	70%	52%
1980	17	0	17	100%	1972	9	72%	52%
1981	10	0	10	56%	1960	8	73%	48%
1982	17	0	17	100%	1994	8	74%	46%
1983	17	0	17	100%	1933	7	75%	42%
1984	14	0	14	79%	1944	7	77%	42%
1985	13	0	13	75%	1955	7	78%	42%
1986	15	0	15	89%	1976	7	79%	42%
1987	4	0	4	21%	1961	7	80%	42%
1988	4	0	4	21%	1925	7	81%	41%
1989	11	0	11	64%	1949	7	83%	38%
1990	4	0	4	24%	2003	7	84%	38%
1991	3	0	3	15%	1930	6	85%	37%
1992	4	0	4	24%	1931	6	86%	33%
1993	11	0	11	66%	1932	6	88%	32%
1994	8	0	8	46%	2001	5	89%	31%
1995	16	0	16	91%	1934	5	90%	26%
1996	13	0	13	77%	1990	4	91%	24%
1997	15	0	15	85%	1992	4	93%	24%
1998	15	0	15	88%	1924	4	94%	24%
1999	13	0	13	77%	1929	4	95%	23%
2000	13	0	13	74%	1988	4	96%	21%
2001	5	0	5	31%	1987	4	98%	21%
2002	11	0	11	64%	1991	3	99%	15%
2003	7	0	7	38%	1977	2	100%	11%
Average	11	0	11	62%		11		62%
Maximum	17	0	17	100%		17		100%
Minimum	2	0	2	11%		2		11%

Table B.30. San Luis Obispo County FC&WCD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	19	0	19	77%	1938	25	0%	100%
1923	16	0	16	63%	1958	25	1%	100%
1924	6	0	6	24%	1958	25	2%	100%
1925	10	0	10	41%	1958	25	4%	100%
1926	13	0	13	52%	1958	25	5%	100%
1927	17	0	17	70%	1958	25	6%	100%
1928	19	0	19	77%	1967	25	7%	100%
1929	6	0	6	23%	1952	23	9%	91%
1930	9	0	9	37%	1986	22	10%	89%
1931	8	0	8	33%	1956	22	11%	89%
1932	8	0	8	32%	1943	22	12%	89%
1933	11	0	11	42%	1998	22	14%	88%
1934	7	0	7	26%	1941	22	15%	87%
1935	17	0	17	67%	1974	21	16%	85%
1936	19	0	19	75%	1997	21	17%	85%
1937	19	0	19	75%	1995	21	19%	83%
1938	25	0	25	100%	1978	20	20%	81%
1939	14	0	14	54%	1984	20	21%	79%
1940	16	0	16	65%	1951	20	22%	78%
1941	22	0	22	87%	1973	20	23%	78%
1942	17	0	17	70%	1928	19	25%	77%
1943	22	0	22	89%	1996	19	26%	77%
1944	11	0	11	42%	1922	19	27%	77%
1945	19	0	19	74%	1999	19	28%	77%
1946	17	0	17	68%	1970	19	30%	76%
1947	14	0	14	55%	1936	19	31%	75%
1948	13	0	13	52%	1985	19	32%	75%
1949	10	0	10	38%	1937	19	33%	75%
1950	15	0	15	61%	1945	19	35%	74%
1951	20	0	20	78%	1945	19	36%	74%
1952	23	0	23	91%	2000	19	37%	74%
1953	16	0	16	63%	1975	18	38%	71%
1954	16	0	16	64%	1927	17	40%	70%
1955	11	0	11	42%	1942	17	41%	70%
1956	22	0	22	89%	1971	17	42%	68%
1957	14	0	14	55%	1946	17	43%	68%
1958	25	0	25	100%	1935	17	44%	67%
1959	14	0	14	55%	1965	17	46%	66%
1960	12	0	12	48%	1963	17	47%	66%
1961	10	0	10	42%	1993	16	48%	66%
1962	14	0	14	56%	2003	16	49%	66%
1963	17	0	17	66%	1940	16	51%	65%
1964	16	0	16	64%	2002	16	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	17	0	17	66%	1964	16	53%	64%
1966	16	0	16	63%	1954	16	54%	64%
1967	25	0	25	100%	1989	16	56%	64%
1968	13	0	13	54%	1953	16	57%	63%
1969	25	0	25	100%	1923	16	58%	63%
1970	19	0	19	76%	1966	16	59%	63%
1971	17	0	17	68%	1950	15	60%	61%
1972	13	0	13	52%	1962	14	62%	56%
1973	20	0	20	78%	1981	14	63%	56%
1974	21	0	21	85%	1957	14	64%	55%
1975	18	0	18	71%	1959	14	65%	55%
1976	10	0	10	42%	1947	14	67%	55%
1977	3	0	3	11%	1939	14	68%	54%
1978	20	0	20	81%	1968	13	69%	54%
1979	19	0	19	74%	1948	13	70%	52%
1980	25	0	25	100%	1926	13	72%	52%
1981	14	0	14	56%	1972	13	73%	52%
1982	25	0	25	100%	1960	12	74%	48%
1983	25	0	25	100%	1994	11	75%	46%
1984	20	0	20	79%	1933	11	77%	42%
1985	19	0	19	75%	1944	11	78%	42%
1986	22	0	22	89%	1955	11	79%	42%
1987	5	0	5	21%	1976	10	80%	42%
1988	5	0	5	21%	1961	10	81%	42%
1989	16	0	16	64%	1925	10	83%	41%
1990	6	0	6	24%	1949	10	84%	38%
1991	4	0	4	15%	1930	9	85%	37%
1992	6	0	6	24%	1931	8	86%	33%
1993	16	0	16	66%	1932	8	88%	32%
1994	11	0	11	46%	2001	8	89%	31%
1995	21	0	21	83%	1934	7	90%	26%
1996	19	0	19	77%	1990	6	91%	24%
1997	21	0	21	85%	1992	6	93%	24%
1998	22	0	22	88%	1924	6	94%	24%
1999	19	0	19	77%	1929	6	95%	23%
2000	19	0	19	74%	1988	5	96%	21%
2001	8	0	8	31%	1987	5	98%	21%
2002	16	0	16	64%	1991	4	99%	15%
2003	16	0	16	66%	1977	3	100%	11%
Average	16	0	16	63%		16		63%
Maximum	25	0	25	100%		25		100%
Minimum	3	0	3	11%		3		11%

Table B.31. Santa Barbara County FC&WCD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	35	0	35	77%	1969	45	0%	100%
1923	29	0	29	63%	1969	45	1%	100%
1924	11	0	11	24%	1938	45	2%	100%
1925	19	0	19	41%	1938	45	4%	100%
1926	23	0	23	52%	1958	45	5%	100%
1927	32	0	32	70%	1958	45	6%	100%
1928	35	0	35	77%	1980	45	7%	100%
1929	11	0	11	23%	1952	41	9%	91%
1930	17	0	17	37%	1986	40	10%	89%
1931	15	0	15	33%	1956	40	11%	89%
1932	15	0	15	32%	1943	40	12%	89%
1933	11	0	11	25%	1998	40	14%	88%
1934	12	0	12	26%	1941	40	15%	87%
1935	31	0	31	67%	1974	39	16%	85%
1936	34	0	34	75%	1997	39	17%	85%
1937	34	0	34	75%	1978	37	19%	81%
1938	45	0	45	100%	1984	36	20%	79%
1939	14	0	14	32%	1951	36	21%	78%
1940	29	0	29	65%	1973	36	22%	78%
1941	40	0	40	87%	1928	35	23%	77%
1942	32	0	32	70%	1996	35	25%	77%
1943	40	0	40	89%	1922	35	26%	77%
1944	19	0	19	42%	1999	35	27%	77%
1945	34	0	34	74%	1970	34	28%	76%
1946	31	0	31	68%	1936	34	30%	75%
1947	25	0	25	55%	1985	34	31%	75%
1948	24	0	24	52%	1937	34	32%	75%
1949	17	0	17	38%	1979	34	33%	74%
1950	28	0	28	61%	1945	34	35%	74%
1951	36	0	36	78%	2000	34	36%	74%
1952	41	0	41	91%	1995	33	37%	72%
1953	29	0	29	63%	1975	32	38%	71%
1954	29	0	29	64%	1927	32	40%	70%
1955	19	0	19	42%	1942	32	41%	70%
1956	40	0	40	89%	1971	31	42%	68%
1957	25	0	25	55%	2003	31	43%	68%
1958	45	0	45	100%	1946	31	44%	68%
1959	25	0	25	55%	1935	31	46%	67%
1960	22	0	22	48%	1965	30	47%	66%
1961	11	0	11	24%	1963	30	48%	66%
1962	25	0	25	56%	1993	30	49%	66%
1963	30	0	30	66%	1940	29	51%	65%
1964	20	0	20	44%	1954	29	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	30	0	30	66%	1989	29	53%	64%
1966	29	0	29	63%	1953	29	54%	63%
1967	45	0	45	100%	1923	29	56%	63%
1968	24	0	24	54%	1966	29	57%	63%
1969	45	0	45	100%	1950	28	58%	61%
1970	34	0	34	76%	1962	25	59%	56%
1971	31	0	31	68%	1981	25	60%	56%
1972	23	0	23	52%	1957	25	62%	55%
1973	36	0	36	78%	1959	25	63%	55%
1974	39	0	39	85%	1947	25	64%	55%
1975	32	0	32	71%	1968	24	65%	54%
1976	19	0	19	42%	1948	24	67%	52%
1977	5	0	5	11%	1926	23	68%	52%
1978	37	0	37	81%	1972	23	69%	52%
1979	34	0	34	74%	1960	22	70%	48%
1980	45	0	45	100%	1964	20	72%	44%
1981	25	0	25	56%	2002	20	73%	44%
1982	45	0	45	100%	1944	19	74%	42%
1983	45	0	45	100%	1955	19	75%	42%
1984	36	0	36	79%	1976	19	77%	42%
1985	34	0	34	75%	1925	19	78%	41%
1986	40	0	40	89%	1949	17	79%	38%
1987	10	0	10	21%	1930	17	80%	37%
1988	10	0	10	21%	1931	15	81%	33%
1989	29	0	29	64%	1994	15	83%	32%
1990	11	0	11	24%	1932	15	84%	32%
1991	7	0	7	15%	1939	14	85%	32%
1992	11	0	11	24%	2001	14	86%	31%
1993	30	0	30	66%	1934	12	88%	26%
1994	15	0	15	32%	1933	11	89%	25%
1995	33	0	33	72%	1961	11	90%	24%
1996	35	0	35	77%	1990	11	91%	24%
1997	39	0	39	85%	1992	11	93%	24%
1998	40	0	40	88%	1924	11	94%	24%
1999	35	0	35	77%	1929	11	95%	23%
2000	34	0	34	74%	1988	10	96%	21%
2001	14	0	14	31%	1987	10	98%	21%
2002	20	0	20	44%	1991	7	99%	15%
2003	31	0	31	68%	1977	5	100%	11%
Average	28	0	28	61%		28		61%
Maximum	45	0	45	100%		45		100%
Minimum	5	0	5	11%		5		11%

Table B.32. Santa Clara Valley WD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	77	0	77	77%	1983	100	0%	100%
1923	63	0	63	63%	1969	97	1%	97%
1924	24	0	24	24%	1982	96	2%	96%
1925	41	0	41	41%	1938	95	4%	95%
1926	52	0	52	52%	1980	95	5%	95%
1927	70	0	70	70%	1967	95	6%	95%
1928	77	0	77	77%	1958	93	7%	93%
1929	23	0	23	23%	1995	91	9%	91%
1930	37	0	37	37%	1952	91	10%	91%
1931	33	0	33	33%	1986	89	11%	89%
1932	32	0	32	32%	1956	89	12%	89%
1933	42	0	42	42%	1943	89	14%	89%
1934	26	0	26	26%	1998	88	15%	88%
1935	67	0	67	67%	1941	87	16%	87%
1936	75	0	75	75%	1974	85	17%	85%
1937	75	0	75	75%	1997	85	19%	85%
1938	95	0	95	95%	1978	81	20%	81%
1939	54	0	54	54%	1984	79	21%	79%
1940	65	0	65	65%	1951	78	22%	78%
1941	87	0	87	87%	1973	78	23%	78%
1942	70	0	70	70%	1928	77	25%	77%
1943	89	0	89	89%	1996	77	26%	77%
1944	42	0	42	42%	1922	77	27%	77%
1945	74	0	74	74%	1999	77	28%	77%
1946	68	0	68	68%	1970	76	30%	76%
1947	55	0	55	55%	1936	75	31%	75%
1948	52	0	52	52%	1985	75	32%	75%
1949	38	0	38	38%	1937	75	33%	75%
1950	61	0	61	61%	1945	74	35%	74%
1951	78	0	78	78%	1979	74	36%	74%
1952	91	0	91	91%	2000	74	37%	74%
1953	63	0	63	63%	1975	71	38%	71%
1954	64	0	64	64%	1927	70	40%	70%
1955	42	0	42	42%	1942	70	41%	70%
1956	89	0	89	89%	1971	68	42%	68%
1957	55	0	55	55%	1946	68	43%	68%
1958	93	0	93	93%	1935	67	44%	67%
1959	55	0	55	55%	1965	66	46%	66%
1960	48	0	48	48%	1963	66	47%	66%
1961	42	0	42	42%	1993	66	48%	66%
1962	56	0	56	56%	1940	65	49%	65%
1963	66	0	66	66%	2003	65	51%	65%
1964	64	0	64	64%	2002	64	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	66	0	66	66%	1964	64	53%	64%
1966	63	0	63	63%	1954	64	54%	64%
1967	95	0	95	95%	1989	64	56%	64%
1968	54	0	54	54%	1953	63	57%	63%
1969	97	0	97	97%	1923	63	58%	63%
1970	76	0	76	76%	1966	63	59%	63%
1971	68	0	68	68%	1950	61	60%	61%
1972	52	0	52	52%	1962	56	62%	56%
1973	78	0	78	78%	1981	56	63%	56%
1974	85	0	85	85%	1957	55	64%	55%
1975	71	0	71	71%	1959	55	65%	55%
1976	42	0	42	42%	1947	55	67%	55%
1977	11	0	11	11%	1939	54	68%	54%
1978	81	0	81	81%	1968	54	69%	54%
1979	74	0	74	74%	1948	52	70%	52%
1980	95	0	95	95%	1926	52	72%	52%
1981	56	0	56	56%	1972	52	73%	52%
1982	96	0	96	96%	1960	48	74%	48%
1983	100	0	100	100%	1994	46	75%	46%
1984	79	0	79	79%	1933	42	77%	42%
1985	75	0	75	75%	1944	42	78%	42%
1986	89	0	89	89%	1955	42	79%	42%
1987	21	0	21	21%	1976	42	80%	42%
1988	21	0	21	21%	1961	42	81%	42%
1989	64	0	64	64%	1925	41	83%	41%
1990	24	0	24	24%	1949	38	84%	38%
1991	15	0	15	15%	1930	37	85%	37%
1992	24	0	24	24%	1931	33	86%	33%
1993	66	0	66	66%	1932	32	88%	32%
1994	46	0	46	46%	2001	31	89%	31%
1995	91	0	91	91%	1934	26	90%	26%
1996	77	0	77	77%	1990	24	91%	24%
1997	85	0	85	85%	1992	24	93%	24%
1998	88	0	88	88%	1924	24	94%	24%
1999	77	0	77	77%	1929	23	95%	23%
2000	74	0	74	74%	1988	21	96%	21%
2001	31	0	31	31%	1987	21	98%	21%
2002	64	0	64	64%	1991	15	99%	15%
2003	65	0	65	65%	1977	11	100%	11%
Average	62	0	62	62%		62		62%
Maximum	100	0	100	100%		100		100%
Minimum	11	0	11	11%		11		11%

Table B.33. Solano County WA: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	44	0	44	93%	1927	48	0%	100%
1923	40	0	40	84%	1927	48	1%	100%
1924	12	0	12	25%	1927	48	2%	100%
1925	23	0	23	48%	1927	48	4%	100%
1926	23	0	23	48%	1927	48	5%	100%
1927	48	0	48	100%	1927	48	6%	100%
1928	44	0	44	93%	1927	48	7%	100%
1929	12	0	12	25%	1941	48	9%	100%
1930	23	0	23	48%	1941	48	10%	100%
1931	12	0	12	25%	1941	48	11%	100%
1932	23	0	23	48%	1938	48	12%	100%
1933	12	0	12	25%	1938	48	14%	100%
1934	12	0	12	25%	1938	48	15%	100%
1935	40	0	40	84%	1938	48	16%	100%
1936	40	0	40	84%	1942	48	17%	100%
1937	40	0	40	84%	1942	48	19%	100%
1938	48	0	48	100%	1942	48	20%	100%
1939	23	0	23	48%	1942	48	21%	100%
1940	44	0	44	93%	1942	48	22%	100%
1941	48	0	48	100%	1942	48	23%	100%
1942	48	0	48	100%	1942	48	25%	100%
1943	48	0	48	100%	1942	48	26%	100%
1944	23	0	23	48%	1942	48	27%	100%
1945	40	0	40	84%	1942	48	28%	100%
1946	40	0	40	84%	1942	48	30%	100%
1947	23	0	23	48%	1942	48	31%	100%
1948	40	0	40	84%	1922	44	32%	93%
1949	23	0	23	48%	1922	44	33%	93%
1950	40	0	40	84%	1922	44	35%	93%
1951	44	0	44	93%	1922	44	36%	93%
1952	48	0	48	100%	1922	44	37%	93%
1953	48	0	48	100%	1922	44	38%	93%
1954	44	0	44	93%	1922	44	40%	93%
1955	23	0	23	48%	1922	44	41%	93%
1956	48	0	48	100%	1951	44	42%	93%
1957	44	0	44	93%	1951	44	43%	93%
1958	48	0	48	100%	1951	44	44%	93%
1959	40	0	40	84%	2003	43	46%	91%
1960	23	0	23	48%	1936	40	47%	84%
1961	23	0	23	48%	1936	40	48%	84%
1962	40	0	40	84%	1936	40	49%	84%
1963	48	0	48	100%	1923	40	51%	84%
1964	23	0	23	48%	1923	40	52%	84%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	100%	1923	40	53%	84%
1966	40	0	40	84%	1923	40	54%	84%
1967	48	0	48	100%	1923	40	56%	84%
1968	40	0	40	84%	1923	40	57%	84%
1969	48	0	48	100%	1923	40	58%	84%
1970	48	0	48	100%	1923	40	59%	84%
1971	48	0	48	100%	1923	40	60%	84%
1972	40	0	40	84%	1923	40	62%	84%
1973	44	0	44	93%	1923	40	63%	84%
1974	48	0	48	100%	1944	23	64%	48%
1975	48	0	48	100%	1955	23	65%	48%
1976	12	0	12	25%	1925	23	67%	48%
1977	12	0	12	25%	1925	23	68%	48%
1978	44	0	44	93%	1925	23	69%	48%
1979	40	0	40	84%	1925	23	70%	48%
1980	44	0	44	93%	1925	23	72%	48%
1981	23	0	23	48%	1925	23	73%	48%
1982	48	0	48	100%	1925	23	74%	48%
1983	48	0	48	100%	1925	23	75%	48%
1984	48	0	48	100%	1925	23	77%	48%
1985	23	0	23	48%	1925	23	78%	48%
1986	48	0	48	100%	1925	23	79%	48%
1987	23	0	23	48%	1925	23	80%	48%
1988	12	0	12	25%	1925	23	81%	48%
1989	23	0	23	48%	1925	23	83%	48%
1990	12	0	12	25%	1949	23	84%	48%
1991	12	0	12	25%	1949	23	85%	48%
1992	12	0	12	25%	1924	12	86%	25%
1993	44	0	44	93%	1924	12	88%	25%
1994	12	0	12	25%	1924	12	89%	25%
1995	48	0	48	100%	1924	12	90%	25%
1996	48	0	48	100%	1931	12	91%	25%
1997	48	0	48	100%	1931	12	93%	25%
1998	48	0	48	100%	1931	12	94%	25%
1999	48	0	48	100%	1931	12	95%	25%
2000	44	0	44	93%	1931	12	96%	25%
2001	23	0	23	48%	1931	12	98%	25%
2002	23	0	23	48%	1931	12	99%	25%
2003	43	0	43	91%	1931	12	100%	25%
Average	35	0	35	74%		35		74%
Maximum	48	0	48	100%		48		100%
Minimum	12	0	12	25%		12		25%

Table B.34. Tulare Lake Basin WSD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	68	0	68	77%	1938	89	0%	100%
1923	56	0	56	63%	1938	89	1%	100%
1924	21	0	21	24%	1958	89	2%	100%
1925	37	0	37	41%	1958	89	4%	100%
1926	46	0	46	52%	1967	89	5%	100%
1927	62	0	62	70%	1967	89	6%	100%
1928	69	0	69	77%	1967	89	7%	100%
1929	21	0	21	23%	1952	81	9%	91%
1930	33	0	33	37%	1986	79	10%	89%
1931	29	0	29	33%	1956	79	11%	89%
1932	29	0	29	32%	1943	79	12%	89%
1933	29	0	29	32%	1998	78	14%	88%
1934	23	0	23	26%	1941	78	15%	87%
1935	60	0	60	67%	1974	76	16%	85%
1936	67	0	67	75%	1997	75	17%	85%
1937	66	0	66	75%	1978	72	19%	81%
1938	89	0	89	100%	1984	70	20%	79%
1939	34	0	34	39%	1951	70	21%	78%
1940	58	0	58	65%	1973	70	22%	78%
1941	78	0	78	87%	1928	69	23%	77%
1942	62	0	62	70%	1996	68	25%	77%
1943	79	0	79	89%	1922	68	26%	77%
1944	38	0	38	42%	1999	68	27%	77%
1945	66	0	66	74%	1970	67	28%	76%
1946	60	0	60	68%	1936	67	30%	75%
1947	49	0	49	55%	1985	67	31%	75%
1948	46	0	46	52%	1937	66	32%	75%
1949	34	0	34	38%	1945	66	33%	74%
1950	54	0	54	61%	1945	66	35%	74%
1951	70	0	70	78%	2000	66	36%	74%
1952	81	0	81	91%	1975	63	37%	71%
1953	56	0	56	63%	1927	62	38%	70%
1954	57	0	57	64%	1942	62	40%	70%
1955	37	0	37	42%	1971	61	41%	68%
1956	79	0	79	89%	1946	60	42%	68%
1957	49	0	49	55%	1935	60	43%	67%
1958	89	0	89	100%	2003	59	44%	67%
1959	49	0	49	55%	1965	59	46%	66%
1960	43	0	43	48%	1963	59	47%	66%
1961	28	0	28	32%	1993	59	48%	66%
1962	50	0	50	56%	1940	58	49%	65%
1963	59	0	59	66%	1954	57	51%	64%
1964	50	0	50	56%	1989	56	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	59	0	59	66%	1953	56	53%	63%
1966	56	0	56	63%	1923	56	54%	63%
1967	89	0	89	100%	1966	56	56%	63%
1968	48	0	48	54%	1995	55	57%	62%
1969	89	0	89	100%	1950	54	58%	61%
1970	67	0	67	76%	1964	50	59%	56%
1971	61	0	61	68%	1962	50	60%	56%
1972	46	0	46	52%	1981	50	62%	56%
1973	70	0	70	78%	1957	49	63%	55%
1974	76	0	76	85%	1959	49	64%	55%
1975	63	0	63	71%	1947	49	65%	55%
1976	37	0	37	42%	1968	48	67%	54%
1977	9	0	9	11%	1948	46	68%	52%
1978	72	0	72	81%	1926	46	69%	52%
1979	66	0	66	74%	1972	46	70%	52%
1980	89	0	89	100%	1960	43	72%	48%
1981	50	0	50	56%	2002	39	73%	44%
1982	89	0	89	100%	1944	38	74%	42%
1983	89	0	89	100%	1955	37	75%	42%
1984	70	0	70	79%	1976	37	77%	42%
1985	67	0	67	75%	1925	37	78%	41%
1986	79	0	79	89%	1939	34	79%	39%
1987	19	0	19	21%	1949	34	80%	38%
1988	19	0	19	21%	1930	33	81%	37%
1989	56	0	56	64%	1994	30	83%	34%
1990	21	0	21	24%	1931	29	84%	33%
1991	13	0	13	15%	1933	29	85%	32%
1992	21	0	21	24%	1932	29	86%	32%
1993	59	0	59	66%	1961	28	88%	32%
1994	30	0	30	34%	2001	28	89%	31%
1995	55	0	55	62%	1934	23	90%	26%
1996	68	0	68	77%	1990	21	91%	24%
1997	75	0	75	85%	1992	21	93%	24%
1998	78	0	78	88%	1924	21	94%	24%
1999	68	0	68	77%	1929	21	95%	23%
2000	66	0	66	74%	1988	19	96%	21%
2001	28	0	28	31%	1987	19	98%	21%
2002	39	0	39	44%	1991	13	99%	15%
2003	59	0	59	67%	1977	9	100%	11%
Average	55	0	55	61%		55		61%
Maximum	89	0	89	100%		89		100%
Minimum	9	0	9	11%		9		11%

Table B.35. Ventura County WPD: Existing Conditions

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	15	0	15	77%	1938	20	0%	100%
1923	13	0	13	63%	1969	20	1%	100%
1924	5	0	5	24%	1969	20	2%	100%
1925	8	0	8	41%	1969	20	4%	100%
1926	10	0	10	52%	1967	19	5%	96%
1927	14	0	14	70%	1952	18	6%	91%
1928	15	0	15	77%	1956	18	7%	89%
1929	5	0	5	23%	1980	18	9%	88%
1930	7	0	7	37%	1958	18	10%	88%
1931	7	0	7	33%	1998	18	11%	88%
1932	6	0	6	32%	1941	17	12%	87%
1933	8	0	8	42%	1974	17	14%	85%
1934	5	0	5	26%	1997	17	15%	85%
1935	13	0	13	67%	1978	16	16%	81%
1936	15	0	15	75%	1995	16	17%	80%
1937	15	0	15	75%	1984	16	19%	79%
1938	20	0	20	100%	2003	16	20%	79%
1939	11	0	11	54%	1951	16	21%	78%
1940	13	0	13	65%	1943	16	22%	78%
1941	17	0	17	87%	1973	16	23%	78%
1942	14	0	14	70%	1986	16	25%	78%
1943	16	0	16	78%	1928	15	26%	77%
1944	8	0	8	42%	1996	15	27%	77%
1945	15	0	15	74%	1922	15	28%	77%
1946	14	0	14	68%	1999	15	30%	77%
1947	11	0	11	55%	1970	15	31%	76%
1948	10	0	10	52%	1936	15	32%	75%
1949	8	0	8	38%	1985	15	33%	75%
1950	12	0	12	61%	1937	15	35%	75%
1951	16	0	16	78%	1979	15	36%	74%
1952	18	0	18	91%	1945	15	37%	74%
1953	13	0	13	63%	2000	15	38%	74%
1954	13	0	13	64%	1975	14	40%	71%
1955	8	0	8	42%	1927	14	41%	70%
1956	18	0	18	89%	1942	14	42%	70%
1957	11	0	11	55%	1971	14	43%	68%
1958	18	0	18	88%	1946	14	44%	68%
1959	11	0	11	55%	1935	13	46%	67%
1960	10	0	10	48%	1965	13	47%	66%
1961	8	0	8	42%	1963	13	48%	66%
1962	11	0	11	56%	1993	13	49%	66%
1963	13	0	13	66%	1940	13	51%	65%
1964	13	0	13	64%	2002	13	52%	64%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	13	0	13	66%	1964	13	53%	64%
1966	13	0	13	63%	1954	13	54%	64%
1967	19	0	19	96%	1989	13	56%	64%
1968	11	0	11	54%	1953	13	57%	63%
1969	20	0	20	100%	1923	13	58%	63%
1970	15	0	15	76%	1966	13	59%	63%
1971	14	0	14	68%	1950	12	60%	61%
1972	10	0	10	52%	1962	11	62%	56%
1973	16	0	16	78%	1981	11	63%	56%
1974	17	0	17	85%	1957	11	64%	55%
1975	14	0	14	71%	1959	11	65%	55%
1976	8	0	8	42%	1947	11	67%	55%
1977	2	0	2	11%	1939	11	68%	54%
1978	16	0	16	81%	1968	11	69%	54%
1979	15	0	15	74%	1948	10	70%	52%
1980	18	0	18	88%	1926	10	72%	52%
1981	11	0	11	56%	1972	10	73%	52%
1982	20	0	20	100%	1960	10	74%	48%
1983	20	0	20	100%	1994	9	75%	46%
1984	16	0	16	79%	1933	8	77%	42%
1985	15	0	15	75%	1944	8	78%	42%
1986	16	0	16	78%	1955	8	79%	42%
1987	4	0	4	21%	1976	8	80%	42%
1988	4	0	4	21%	1961	8	81%	42%
1989	13	0	13	64%	1925	8	83%	41%
1990	5	0	5	24%	1949	8	84%	38%
1991	3	0	3	15%	1930	7	85%	37%
1992	5	0	5	24%	1931	7	86%	33%
1993	13	0	13	66%	1932	6	88%	32%
1994	9	0	9	46%	2001	6	89%	31%
1995	16	0	16	80%	1934	5	90%	26%
1996	15	0	15	77%	1990	5	91%	24%
1997	17	0	17	85%	1992	5	93%	24%
1998	18	0	18	88%	1924	5	94%	24%
1999	15	0	15	77%	1929	5	95%	23%
2000	15	0	15	74%	1988	4	96%	21%
2001	6	0	6	31%	1987	4	98%	21%
2002	13	0	13	64%	1991	3	99%	15%
2003	16	0	16	79%	1977	2	100%	11%
Average	12	0	12	62%		12		62%
Maximum	20	0	20	100%		20		100%
Minimum	2	0	2	11%		2		11%



Appendix C:

Early Long-Term Scenario

Introduction

This appendix is a supplemental document to provide information on Early Long-Term (ELT) Scenario which is an alternative to the Delivery Capability Report (DCR) of 2015. This document presents a brief description of the model assumptions, updates, and state water project (SWP) contractor deliveries. The following items are discussed:

- Model assumptions
- Simulation results
 - Annual delivery for Table A, Article 56, and Article 21
 - SWP contractor annual deliveries

Overview of Model Assumptions

All the model assumptions and updates developed for the 2015 DCR simulation base scenario were also used for the ELT Scenario. In addition, this scenario assumes a 2025 emission level and 15 cm sea level rise. The assumptions specific to the ELT scenario are described in Public *Draft BDCP Appendix 5A-2 – Climate Change Approach and Implications for Aquatic Species*, which can be accessed through the following link:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Appendix_5A_-_2_-_Climate_Change_Approach_and_Implications_for_Aquatic_Species.sflb.ashx

Table C.1. CalSim II Modeling Assumptions for 2015 DCR ELT

	ELT Assumptions ¹
Planning Horizon	2025
Period of Simulation	82 years (1922-2003)
HYDROLOGY	
Level of Development (land use)	2030 Level ²
Climate Change	ELT (2025 emission level + 15 cm SLR)
DEMANDS	
North of Delta (excluding the American River)	
CVP	Land-use based, full build-out of contract amounts ³
SWP (FRSA)	Land-use based, limited by contract amounts ^{4, 7}
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities
Antioch Water Works	Pre-1914 water right
Federal refuges	Firm Level 2 water needs ⁵
American River Basin	
Water rights	Year 2025, full water rights ⁶
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶
San Joaquin River Basin⁸	
Friant Unit	Limited by contract amounts, based on current allocation policy
Lower basin	Land-use based, based on district level operations and constraints
Stanislaus River basin ^{9, 17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index
South of Delta	
CVP	Demand based on contract amounts ³
Federal refuges	Firm Level 2 water needs ⁵
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰
SWP ^{4, 11}	Demand based on full Table A amounts (4.13 MAF/yr)
Article 56	Based on 2001-2008 contractor requests
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵

ELT Assumptions ¹	
FACILITIES	
System-wide	Existing facilities
Sacramento Valley	
Shasta Lake	Existing, 4,552 TAF capacity
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place
Colusa Basin	Existing conveyance and storage facilities
Lower American River	Hodge criteria for diversion at Fairbairn
Upper American River	PCWA American River pump station
Lower Sacramento River	Freeport Regional Water Project
Fremont Weir	Existing Weir
Delta Export Conveyance	
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs, permitted capacity is 6,680 cfs in all months and up to 8,500 cfs during Dec 15 th - Mar 15 th depending on Vernalis flow conditions ¹⁸ ; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul-Sep for reducing impact of NMFS BO (Jun 2009) Action IV.2.1 ¹⁷ on SWP ¹⁹
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³
San Joaquin River	
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity
South of Delta (CVP/SWP project facilities)	
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point
California Aqueduct East Branch	Existing capacity
REGULATORY STANDARDS	
Trinity River	
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF/yr as able)

ELT Assumptions ¹	
Clear Creek	
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷
Upper Sacramento River	
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷
Feather River	
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)
Yuba River	
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴
American River	
Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1 ¹⁷
Minimum flow at H Street Bridge	SWRCB D-893
Lower Sacramento River	
Minimum flow near Rio Vista	SWRCB D-1641
Mokelumne River	
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100 – 325 cfs)
Minimum flow below Woodbridge Diversion Dam	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 cfs)
Stanislaus River	
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
Minimum dissolved oxygen	SWRCB D-1422

ELT Assumptions ¹	
Merced River	
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 cfs, Nov – Mar), and Cowell Agreement
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25 – 100 cfs)
Tuolumne River	
Minimum flow at Lagrange Bridge	Federal Energy Regulatory Commission 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/yr)
Updated Tuolumne River	New Don Pedro operations
San Joaquin River	
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows
Maximum salinity near Vernalis	SWRCB D-1641
Minimum flow near Vernalis	SWRCB D1641. VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water
Sacramento-San Joaquin Delta	
Delta Outflow Index (flow and salinity)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹
Combined Flow in Old and Middle River (OMR)	FWS BO (Dec 2008) Actions 1-3 and NMFS BO (Jun 2009) Action IV.2.3 ¹⁷
OPERATIONS CRITERIA: RIVER-SPECIFIC	
Upper Sacramento River	
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250 – 5,000 cfs based on CVP water supply condition
American River	
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)
Feather River	
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr - Sep dependent on Oroville inflow and FRSA allocation
Stanislaus River	
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷

ELT Assumptions ¹	
San Joaquin River	
Salinity at Vernalis	Grasslands Bypass Project (full implementation)
OPERATIONS CRITERIA: SYSTEMWIDE	
CVP Water Allocation	
CVP settlement and exchange	100% (75% in Shasta critical years)
CVP refuges	100% (75% in Shasta critical years)
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
SWP Water Allocation	
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
CVP/SWP Coordinated Operations	
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)
Sharing of surplus flows	1986 Coordinated Operations Agreement
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF
CVPIA 3406(b)(2)	
Policy decision	Per May 2003 Department of Interior decision
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO

	ELT Assumptions ¹
	(Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting
WATER MANAGEMENT ACTIONS	
Water Transfer Supplies (long term programs)	
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP
Phase 8	None
Water Transfers (short term or temporary programs)	
Sacramento Valley acquisitions conveyed through Banks PP ²¹	Post analysis of available capacity

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.
- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.

- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.
- ¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.
- ²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.
- ²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.

Key:

ACOE = Army Corps of Engineers
Ag = agricultural
BDGP = Bay-Delta Conservation Plan
BO = Biological Opinion
CALFED = CALFED Bay-Delta Program
CCWD = Contra Costa Water District
cfs = cubic feet per second
CVP = Central Valley Project
CVPIA = Central Valley Project Improvement Act
D-xxxx = Water Right Decision
DFG = California Department of Fish and Game
DMC = Delta-Mendota canal
DWR = California Department of Water Resources
EBMUD = East Bay Municipal Utility District
EIS = Environmental Impact Statement
ELT = Early Long-Term
FC&WSD = Flood Control and Water Service District
FERC = Federal Energy Regulatory Commission
FRSA = Feather River Service Area
FRWP = Freeport Regional Water Project
FWS = Fish and Wildlife Service
KCWA = Kern County Water Agency
LOD = Level of Development
LYRA = Lower Yuba River Accord
MAF/yr = million acre-feet per year
M&I = municipal and industrial
MWD = Metropolitan Water District
NAA = No Action Alternative
NEPA = National Environmental Policy Act
NMFS = National Marine Fisheries Service
NPS = National Park Service
PCWA = Placer County Water Agency
PP = Pumping Plant
Reclamation = United States Department of the Interior, Bureau of Reclamation
ROD = Record of Decision
SBA = South Bay Aqueduct
SLR = Sea Level Rise
SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year

Simulation Results for 2015 DCR ELT

The deliveries shown in this report only include those State Water Contractors that rely on delivery of water from the Sacramento-San Joaquin Delta; therefore, State Water Contractors in the Feather River area and upstream (i.e., Butte County, Plumas County Flood Control and Water Conservation District, and Yuba City) are excluded from this analysis. This section of the appendix presents results for the 2015 DCR ELT scenario.

SWP Table A Deliveries

Figure C.1 shows the comparison of SWP Table A delivery exceedence curves between the 2015 DCR Existing Conditions and 2015 DCR ELT studies. The Table A deliveries for State Water Contractors for 2015 DCR ELT scenario are shown in Table C.2 on the following page. The results for individual Contractor Table A deliveries are included at the end of this appendix.

Figure C.1. Comparison of SWP Table A delivery probability between 2015 DCR Existing Conditions and 2015 DCR ELT

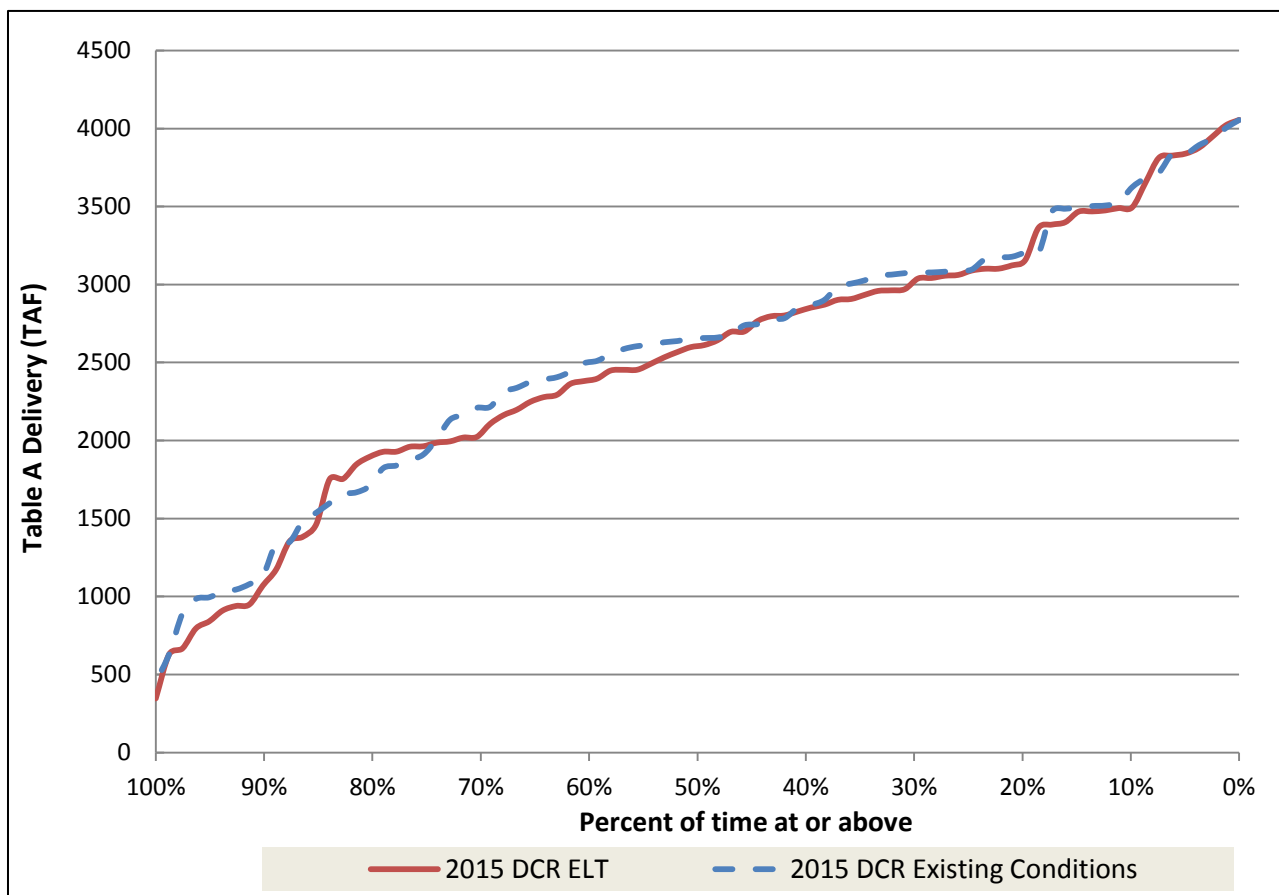


Table C.2. SWP Table A Deliveries for 2015 DCR ELT

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1922	4,133	2,853	69%	1983	4,056	0%	98%
1923	4,133	2,697	65%	1938	4,020	1%	97%
1924	4,133	795	19%	1980	3,948	2%	96%
1925	4,133	1,961	47%	1952	3,877	4%	94%
1926	4,133	2,023	49%	1969	3,839	5%	93%
1927	4,133	2,612	63%	1982	3,826	6%	93%
1928	4,133	3,089	75%	1998	3,812	7%	92%
1929	4,133	940	23%	1958	3,654	9%	88%
1930	4,133	1,963	48%	1941	3,495	10%	85%
1931	4,133	841	20%	1997	3,490	11%	84%
1932	4,133	1,929	47%	1967	3,475	12%	84%
1933	4,133	1,463	35%	1956	3,469	14%	84%
1934	4,133	1,173	28%	1984	3,467	15%	84%
1935	4,133	2,599	63%	1995	3,400	16%	82%
1936	4,133	2,970	72%	1943	3,384	17%	82%
1937	4,133	3,042	74%	1978	3,363	19%	81%
1938	4,133	4,020	97%	1986	3,156	20%	76%
1939	4,133	1,754	42%	1974	3,123	21%	76%
1940	4,133	2,643	64%	1951	3,102	22%	75%
1941	4,133	3,495	85%	1979	3,101	23%	75%
1942	4,133	2,959	72%	1928	3,089	25%	75%
1943	4,133	3,384	82%	1970	3,062	26%	74%
1944	4,133	1,847	45%	1973	3,057	27%	74%
1945	4,133	2,902	70%	1937	3,042	28%	74%
1946	4,133	2,907	70%	1996	3,039	30%	74%
1947	4,133	2,248	54%	1936	2,970	31%	72%
1948	4,133	2,163	52%	1975	2,963	32%	72%
1949	4,133	1,752	42%	1942	2,959	33%	72%
1950	4,133	2,293	55%	2000	2,934	35%	71%
1951	4,133	3,102	75%	1946	2,907	36%	70%
1952	4,133	3,877	94%	1945	2,902	37%	70%
1953	4,133	2,397	58%	1999	2,871	38%	69%
1954	4,133	2,567	62%	1922	2,853	40%	69%
1955	4,133	1,928	47%	1985	2,827	41%	68%
1956	4,133	3,469	84%	1966	2,801	42%	68%
1957	4,133	2,363	57%	1971	2,797	43%	68%
1958	4,133	3,654	88%	1965	2,766	44%	67%
1959	4,133	2,198	53%	1963	2,699	46%	65%
1960	4,133	1,986	48%	1923	2,697	47%	65%
1961	4,133	1,383	33%	1940	2,643	48%	64%
1962	4,133	2,454	59%	1927	2,612	49%	63%
1963	4,133	2,699	65%	1935	2,599	51%	63%
1964	4,133	2,448	59%	1954	2,567	52%	62%

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1965	4,133	2,766	67%	1993	2,533	53%	61%
1966	4,133	2,801	68%	2003	2,491	54%	60%
1967	4,133	3,475	84%	1962	2,454	56%	59%
1968	4,133	2,381	58%	1989	2,453	57%	59%
1969	4,133	3,839	93%	1964	2,448	58%	59%
1970	4,133	3,062	74%	1953	2,397	59%	58%
1971	4,133	2,797	68%	1968	2,381	60%	58%
1972	4,133	2,278	55%	1957	2,363	62%	57%
1973	4,133	3,057	74%	1950	2,293	63%	55%
1974	4,133	3,123	76%	1972	2,278	64%	55%
1975	4,133	2,963	72%	1947	2,248	65%	54%
1976	4,133	2,019	49%	1959	2,198	67%	53%
1977	4,133	347	8%	1948	2,163	68%	52%
1978	4,133	3,363	81%	2002	2,107	69%	51%
1979	4,133	3,101	75%	1926	2,023	70%	49%
1980	4,133	3,948	96%	1976	2,019	72%	49%
1981	4,133	1,995	48%	1981	1,995	73%	48%
1982	4,133	3,826	93%	1960	1,986	74%	48%
1983	4,133	4,056	98%	1930	1,963	75%	48%
1984	4,133	3,467	84%	1925	1,961	77%	47%
1985	4,133	2,827	68%	1932	1,929	78%	47%
1986	4,133	3,156	76%	1955	1,928	79%	47%
1987	4,133	1,070	26%	1994	1,896	80%	46%
1988	4,133	629	15%	1944	1,847	81%	45%
1989	4,133	2,453	59%	1939	1,754	83%	42%
1990	4,133	949	23%	1949	1,752	84%	42%
1991	4,133	667	16%	1933	1,463	85%	35%
1992	4,133	910	22%	1961	1,383	86%	33%
1993	4,133	2,533	61%	2001	1,353	88%	33%
1994	4,133	1,896	46%	1934	1,173	89%	28%
1995	4,133	3,400	82%	1987	1,070	90%	26%
1996	4,133	3,039	74%	1990	949	91%	23%
1997	4,133	3,490	84%	1929	940	93%	23%
1998	4,133	3,812	92%	1992	910	94%	22%
1999	4,133	2,871	69%	1931	841	95%	20%
2000	4,133	2,934	71%	1924	795	96%	19%
2001	4,133	1,353	33%	1991	667	98%	16%
2002	4,133	2,107	51%	1988	629	99%	15%
2003	4,133	2,491	60%	1977	347	100%	8%
Average	4,133	2,501	61%	Average	2,501		61%
Minimum	4,133	347	8%	Minimum	347		8%
Maximum	4,133	4,056	98%	Maximum	4,056		98%

Article 21 Deliveries

Table C.3 below shows the State Water Contractors' Article 21 deliveries for the 2015 DCR ELT scenario.

Table C.3. Article 21 Deliveries for 2015 DCR ELT

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										0	0	2	2
1922	2	2	2	2	0	0	0	0	0	0	0	2	10
1923	2	0	2	2	1	0	2	0	0	0	0	0	9
1924	2	2	0	0	0	0	0	0	0	0	2	2	8
1925	2	2	2	2	2	0	0	2	0	0	0	0	12
1926	2	2	0	2	0	0	0	2	0	0	2	2	12
1927	2	2	2	2	0	0	2	0	0	0	0	2	12
1928	2	2	2	2	0	1	2	0	0	0	0	1	12
1929	2	2	2	2	0	0	0	2	0	0	0	2	12
1930	2	2	2	2	0	0	0	2	0	0	0	0	10
1931	2	2	0	0	0	0	0	2	0	0	0	2	8
1932	2	2	104	2	2	0	0	0	0	2	0	2	116
1933	2	2	2	2	2	0	0	2	0	0	0	2	14
1934	2	2	0	0	0	0	0	2	0	0	2	2	10
1935	2	2	2	2	2	0	0	2	0	0	0	0	12
1936	2	2	2	2	1	0	2	0	0	0	0	0	11
1937	2	2	182	2	2	0	0	0	0	0	2	2	194
1938	2	2	158	2	0	0	0	0	0	0	0	2	166
1939	2	2	2	0	1	1	2	0	0	0	0	0	11
1940	2	2	2	2	0	0	2	0	0	0	0	2	12
1941	2	2	2	2	0	0	0	2	0	0	0	2	12
1942	2	2	2	2	0	0	0	0	0	0	0	2	10
1943	2	2	2	2	0	0	2	0	0	0	0	0	10
1944	2	2	2	2	2	0	0	2	0	0	2	2	16
1945	2	2	103	2	1	0	0	0	0	0	2	2	114
1946	2	2	2	2	0	0	2	0	0	0	0	2	12
1947	2	2	2	2	2	0	0	2	0	0	0	0	12
1948	2	0	2	2	1	1	0	2	0	0	0	2	12
1949	2	2	2	2	2	0	0	2	0	0	0	0	12
1950	2	2	2	2	0	0	0	2	0	0	2	2	14
1951	93	237	208	2	0	0	2	0	0	0	0	2	544
1952	2	2	2	2	0	0	0	0	0	0	0	2	10
1953	2	2	2	2	0	0	0	2	0	0	0	0	10
1954	2	2	2	2	0	0	2	0	0	0	0	2	12
1955	2	2	2	2	2	0	0	2	0	0	0	2	14
1956	2	234	210	2	0	0	0	0	0	0	0	2	450
1957	2	2	2	2	0	0	2	0	0	0	0	2	12
1958	2	2	94	2	0	0	0	0	0	0	0	2	103
1959	2	2	2	2	0	1	2	0	0	0	0	0	11
1960	2	2	2	0	2	0	2	0	0	0	2	2	14
1961	2	2	2	0	2	1	0	2	0	0	2	2	15
1962	0	2	2	2	0	0	2	0	0	1	1	2	12
1963	2	2	2	2	0	0	2	0	0	0	0	2	12

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1964	2	2	2	2	2	2	0	2	0	0	2	2	18
1965	2	2	2	2	0	0	1	0	0	0	0	2	11
1966	2	2	2	2	0	0	2	0	0	0	2	2	14
1967	2	2	2	2	0	0	0	0	0	0	0	2	10
1968	2	2	2	2	1	1	2	0	0	0	2	2	17
1969	2	73	81	2	0	0	2	0	0	0	0	2	162
1970	2	2	2	2	0	0	2	0	0	0	2	2	14
1971	2	2	2	2	0	0	2	2	0	0	0	2	14
1972	2	2	2	2	0	1	2	0	0	0	2	2	15
1973	2	108	157	2	0	0	2	0	0	0	2	2	275
1974	2	2	2	2	0	0	2	0	0	0	0	2	12
1975	2	2	2	2	0	0	0	0	0	0	0	2	10
1976	2	2	2	2	2	2	0	2	0	0	0	2	16
1977	2	0	0	0	0	0	0	0	0	0	0	2	4
1978	2	2	2	2	0	0	0	0	0	0	0	2	10
1979	2	2	24	2	2	0	0	0	0	2	2	2	38
1980	2	2	31	2	0	0	0	0	0	0	0	2	39
1981	2	2	2	2	2	0	0	2	0	2	2	2	18
1982	2	2	2	60	0	0	0	0	0	0	2	2	70
1983	2	2	67	2	0	0	2	0	0	0	64	146	285
1984	166	226	212	2	0	0	2	0	0	0	2	2	611
1985	2	2	2	2	0	1	2	0	0	0	0	2	13
1986	2	2	2	2	0	0	2	0	0	0	0	0	10
1987	2	2	2	0	2	0	0	2	0	0	0	2	12
1988	2	0	0	2	0	0	0	2	0	0	2	2	10
1989	2	0	2	2	0	0	2	2	2	0	0	0	12
1990	2	2	2	0	2	0	0	2	0	0	0	2	12
1991	2	2	2	2	2	0	0	2	0	0	0	2	14
1992	2	2	2	2	0	0	0	2	0	0	0	2	12
1993	2	2	2	2	0	0	0	0	0	0	0	2	11
1994	2	2	2	2	2	2	0	2	0	0	0	2	16
1995	2	2	2	2	0	0	0	0	0	0	0	2	10
1996	2	2	2	2	0	0	2	0	0	0	0	2	12
1997	2	2	49	2	0	0	2	0	0	0	0	2	59
1998	2	2	2	2	0	0	0	0	0	0	2	2	12
1999	2	2	2	2	0	0	2	0	0	0	0	2	12
2000	2	2	2	2	0	0	2	0	0	0	0	0	10
2001	2	2	2	2	2	0	0	2	0	0	2	2	16
2002	2	2	2	2	2	0	2	2	0	0	0	2	16
2003	2	2	2	2	0	0	2	2	0				13
Average	5	12	22	2	1	0	1	1	0	0	1	3	49
Minimum	0	0	0	0	0	0	0	0	0	0	0	0	4
Maximum	166	237	212	60	2	2	2	2	2	2	64	146	611

SWP Exports from the Sacramento-San Joaquin Delta

Table C.4 below shows the SWP Exports from the Delta for the 2015 DCR ELT scenario.

Table C.4. SWP Exports for 2015 DCR ELT

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										116	188	443	747
1922	220	186	287	74	69	332	411	411	393	168	127	266	2,943
1923	280	195	161	69	43	99	408	411	397	222	203	204	2,694
1924	169	121	18	18	18	6	18	18	22	172	207	190	979
1925	197	92	243	71	58	160	348	59	184	144	184	217	1,958
1926	198	96	18	135	132	97	380	18	147	128	397	230	1,977
1927	146	218	227	54	43	128	399	411	397	268	323	438	3,051
1928	213	125	223	66	43	104	359	411	397	117	160	324	2,543
1929	203	182	158	79	18	11	18	18	40	67	76	168	1,039
1930	147	137	155	56	61	120	411	194	358	125	163	136	2,063
1931	201	155	51	18	18	18	18	18	23	96	110	446	1,173
1932	219	384	221	42	43	40	256	156	130	120	167	167	1,946
1933	233	327	110	54	55	18	18	18	34	81	98	238	1,284
1934	390	274	63	18	18	18	18	18	78	129	204	230	1,460
1935	212	167	174	61	43	199	411	360	397	216	207	243	2,691
1936	134	485	360	59	43	119	411	411	397	330	174	250	3,172
1937	89	472	465	95	67	299	384	149	163	195	397	415	3,191
1938	459	472	426	155	380	306	411	411	386	169	64	437	4,075
1939	210	191	102	42	43	18	125	26	124	143	111	252	1,389
1940	159	189	416	85	43	162	350	411	397	213	125	276	2,827
1941	264	472	465	92	102	182	411	410	379	154	63	296	3,289
1942	371	312	338	83	89	223	411	411	389	187	80	243	3,136
1943	413	339	465	88	50	78	349	411	389	189	76	273	3,119
1944	209	211	151	54	43	133	411	18	151	151	397	232	2,161
1945	213	292	465	67	43	116	411	405	255	289	208	331	3,095
1946	254	305	349	54	43	118	374	411	397	211	150	446	3,112
1947	216	193	82	96	87	98	139	18	150	258	222	163	1,722
1948	125	32	156	61	43	159	411	411	397	223	216	245	2,480
1949	198	184	119	52	43	103	212	18	171	91	139	144	1,474
1950	133	148	211	69	47	110	411	267	397	368	397	472	3,034
1951	523	345	362	79	43	104	342	411	397	217	319	236	3,377
1952	311	230	461	114	157	278	411	411	397	176	68	438	3,453
1953	177	218	237	55	47	115	411	410	397	153	49	295	2,563
1954	128	139	212	52	43	156	333	411	397	225	258	433	2,787
1955	221	183	147	161	82	18	192	45	181	152	298	472	2,152
1956	523	358	387	62	65	238	411	411	395	169	29	434	3,481
1957	203	104	162	56	43	94	385	411	397	362	205	228	2,650
1958	159	237	465	152	110	257	411	411	397	199	66	436	3,299
1959	135	164	214	64	43	18	411	411	302	150	152	162	2,226
1960	200	128	149	18	66	90	411	163	156	124	228	192	1,925
1961	204	112	152	44	47	10	272	18	147	65	153	165	1,390
1962	160	189	235	62	43	93	411	411	397	411	397	219	3,029
1963	149	173	220	55	43	141	374	411	397	229	333	324	2,850
1964	208	179	147	18	45	18	411	18	129	138	177	269	1,757
1965	396	272	327	78	43	122	402	411	397	144	328	470	3,389

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1966	251	221	185	59	43	99	386	296	152	148	214	240	2,294
1967	233	201	310	128	134	362	411	411	397	189	92	434	3,301
1968	210	129	219	55	43	98	408	411	397	221	244	434	2,870
1969	443	239	223	235	339	397	410	411	397	198	37	248	3,576
1970	523	314	316	42	43	109	411	411	394	50	397	244	3,254
1971	204	191	221	60	43	154	411	393	397	163	29	434	2,701
1972	196	101	143	161	103	96	411	390	185	259	397	234	2,677
1973	185	254	317	61	43	170	411	411	397	347	397	271	3,265
1974	276	220	261	70	43	144	410	411	397	205	21	440	2,899
1975	208	180	331	62	43	197	411	411	397	312	18	434	3,003
1976	202	186	181	72	48	16	288	53	91	112	125	118	1,492
1977	135	94	45	18	18	4	18	18	94	42	121	210	818
1978	209	300	315	107	107	216	411	411	397	237	181	438	3,329
1979	253	300	285	56	65	124	411	118	397	262	233	436	2,941
1980	475	485	298	67	77	225	411	411	397	258	124	435	3,664
1981	210	188	150	53	43	96	365	46	150	152	397	227	2,077
1982	259	457	465	364	150	235	411	411	397	411	397	472	4,429
1983	523	183	191	200	249	305	332	411	397	372	397	453	4,014
1984	377	358	387	60	43	121	397	411	390	247	397	433	3,622
1985	210	196	174	66	52	99	303	206	201	175	311	256	2,249
1986	132	472	465	111	84	174	411	411	389	229	40	228	3,147
1987	203	186	144	20	102	30	18	18	101	27	55	199	1,105
1988	146	17	107	56	51	18	37	18	79	23	237	196	986
1989	195	70	74	65	48	145	409	221	392	280	179	102	2,180
1990	190	172	62	18	56	13	157	18	111	64	80	56	998
1991	61	86	79	52	51	94	65	18	38	90	67	95	797
1992	138	99	148	42	43	95	18	18	99	18	36	197	952
1993	217	238	243	42	43	193	411	411	397	240	91	380	2,905
1994	197	185	126	37	61	12	251	38	202	109	169	189	1,576
1995	213	202	465	112	380	361	411	411	397	187	44	228	3,410
1996	179	485	400	72	52	102	410	411	397	130	120	472	3,231
1997	523	472	465	51	48	138	309	411	397	163	132	434	3,543
1998	195	472	465	114	131	397	411	411	397	194	397	242	3,828
1999	246	419	298	55	43	138	411	411	397	169	18	431	3,036
2000	139	349	362	52	43	160	345	411	397	173	92	255	2,777
2001	213	168	174	93	92	76	18	34	174	18	197	242	1,501
2002	164	185	160	42	43	100	386	60	186	93	156	237	1,812
2003	187	187	206	62	43	48	372	410	397				2,659
Average	235	235	244	75	72	133	324	269	290	181	187	296	2,541
Minimum	61	17	18	18	18	4	18	18	22	18	18	56	797
Maximum	523	485	465	364	380	397	411	411	397	411	397	472	4,429

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Individual Contractor Table A Deliveries - 2015 DCR ELT

The tables on the following pages show the Table A deliveries for each State Water Contractor for the 2015 DCR ELT scenario.

Table C.5. Alameda County FC&WCD-Zone 7: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	57	0	57	71%	1983	80	0%	100%
1923	48	2	50	62%	1938	80	1%	99%
1924	15	1	16	20%	1980	80	2%	99%
1925	37	0	37	46%	1958	80	4%	99%
1926	38	1	39	49%	1982	79	5%	98%
1927	51	1	52	64%	1969	79	6%	98%
1928	60	1	61	76%	1952	78	7%	96%
1929	15	2	16	20%	1998	75	9%	94%
1930	37	0	37	46%	1943	74	10%	92%
1931	16	1	17	22%	1995	72	11%	89%
1932	37	0	37	46%	1967	70	12%	87%
1933	29	1	30	37%	1956	70	14%	87%
1934	23	0	23	29%	1941	69	15%	86%
1935	51	0	51	63%	1984	69	16%	85%
1936	58	1	59	73%	1997	68	17%	85%
1937	58	2	60	74%	1978	68	19%	84%
1938	78	2	80	99%	1986	67	20%	84%
1939	35	2	37	46%	1951	63	21%	78%
1940	52	1	53	66%	1973	62	22%	77%
1941	68	1	69	86%	1928	61	23%	76%
1942	58	1	60	74%	1979	61	25%	75%
1943	73	2	74	92%	1974	61	26%	75%
1944	32	2	34	42%	1942	60	27%	74%
1945	58	1	59	73%	1937	60	28%	74%
1946	55	2	56	70%	1936	59	30%	73%
1947	42	2	44	54%	1996	59	31%	73%
1948	41	1	42	52%	1970	59	32%	73%
1949	33	1	34	43%	1945	59	33%	73%
1950	44	1	44	55%	2000	58	35%	71%
1951	62	1	63	78%	1975	57	36%	71%
1952	76	2	78	96%	1922	57	37%	71%
1953	41	2	43	53%	1946	56	38%	70%
1954	50	1	51	63%	1985	56	40%	70%
1955	35	1	37	45%	1965	56	41%	69%
1956	70	0	70	87%	1963	55	42%	68%
1957	40	2	42	52%	1999	54	43%	67%
1958	78	1	80	99%	1966	54	44%	67%
1959	37	2	39	48%	1971	53	46%	66%
1960	39	1	40	50%	1940	53	47%	66%
1961	32	1	33	41%	1927	52	48%	64%
1962	46	1	47	58%	1935	51	49%	63%
1963	54	1	55	68%	1954	51	51%	63%
1964	49	2	50	62%	2002	51	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	54	1	56	69%	1964	50	53%	62%
1966	52	2	54	67%	1923	50	54%	62%
1967	69	1	70	87%	2003	50	56%	62%
1968	43	2	45	55%	1993	49	57%	60%
1969	78	1	79	98%	1989	48	58%	60%
1970	57	2	59	73%	1962	47	59%	58%
1971	51	2	53	66%	1968	45	60%	55%
1972	41	1	42	52%	1950	44	62%	55%
1973	61	1	62	77%	1947	44	63%	54%
1974	59	2	61	75%	1953	43	64%	53%
1975	56	2	57	71%	1994	42	65%	52%
1976	35	2	37	46%	1957	42	67%	52%
1977	6	1	7	9%	1972	42	68%	52%
1978	68	0	68	84%	1948	42	69%	52%
1979	59	2	61	75%	1960	40	70%	50%
1980	78	2	80	99%	1926	39	72%	49%
1981	34	2	36	45%	1959	39	73%	48%
1982	78	1	79	98%	1930	37	74%	46%
1983	78	2	80	100%	1925	37	75%	46%
1984	68	1	69	85%	1939	37	77%	46%
1985	54	2	56	70%	1932	37	78%	46%
1986	66	2	67	84%	1976	37	79%	46%
1987	18	2	19	24%	1955	37	80%	45%
1988	12	0	12	15%	1981	36	81%	45%
1989	48	0	48	60%	1949	34	83%	43%
1990	22	1	23	28%	1944	34	84%	42%
1991	13	0	13	16%	1961	33	85%	41%
1992	19	0	19	24%	1933	30	86%	37%
1993	49	0	49	60%	2001	24	88%	30%
1994	41	1	42	52%	1934	23	89%	29%
1995	72	1	72	89%	1990	23	90%	28%
1996	57	2	59	73%	1987	19	91%	24%
1997	67	2	68	85%	1992	19	93%	24%
1998	74	2	75	94%	1931	17	94%	22%
1999	52	2	54	67%	1929	16	95%	20%
2000	56	1	58	71%	1924	16	96%	20%
2001	23	2	24	30%	1991	13	98%	16%
2002	51	0	51	63%	1988	12	99%	15%
2003	48	1	50	62%	1977	7	100%	9%
Average	48	1	50	62%		50		62%
Maximum	78	2	80	100%		80		100%
Minimum	6	0	7	9%		7		9%

Table C.6. Alameda County WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	31	0	31	73%	1969	42	0%	100%
1923	26	0	26	62%	1969	42	1%	100%
1924	8	0	8	18%	1938	42	2%	100%
1925	20	0	20	47%	1938	42	4%	100%
1926	21	0	21	49%	1938	42	5%	100%
1927	27	0	27	65%	1980	42	6%	100%
1928	32	0	32	76%	1952	41	7%	97%
1929	8	0	8	18%	1998	39	9%	94%
1930	20	0	20	47%	1943	39	10%	92%
1931	9	0	9	20%	1995	38	11%	91%
1932	20	0	20	47%	1956	37	12%	89%
1933	15	0	15	36%	1967	37	14%	88%
1934	12	0	12	29%	1941	36	15%	86%
1935	27	0	27	65%	1984	36	16%	86%
1936	31	0	31	74%	1978	36	17%	86%
1937	31	0	31	74%	1997	36	19%	85%
1938	42	0	42	100%	1986	35	20%	84%
1939	19	0	19	44%	1951	33	21%	79%
1940	28	0	28	66%	1973	33	22%	78%
1941	36	0	36	86%	1928	32	23%	76%
1942	31	0	31	74%	1974	32	25%	75%
1943	39	0	39	92%	1979	31	26%	75%
1944	17	0	17	40%	1942	31	27%	74%
1945	31	0	31	74%	1945	31	28%	74%
1946	29	0	29	70%	1937	31	30%	74%
1947	23	0	23	54%	1936	31	31%	74%
1948	22	0	22	52%	1922	31	32%	73%
1949	18	0	18	42%	1996	31	33%	73%
1950	23	0	23	56%	1970	30	35%	72%
1951	33	0	33	79%	2000	30	36%	72%
1952	41	0	41	97%	1975	30	37%	71%
1953	22	0	22	52%	1946	29	38%	70%
1954	27	0	27	63%	1965	29	40%	69%
1955	19	0	19	45%	2003	29	41%	69%
1956	37	0	37	89%	1985	29	42%	69%
1957	22	0	22	51%	1963	29	43%	68%
1958	42	0	42	100%	1999	28	44%	67%
1959	20	0	20	47%	1966	28	46%	66%
1960	21	0	21	50%	1940	28	47%	66%
1961	17	0	17	40%	1971	28	48%	66%
1962	25	0	25	59%	1935	27	49%	65%
1963	29	0	29	68%	1927	27	51%	65%
1964	26	0	26	62%	2002	27	52%	65%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	69%	1954	27	53%	63%
1966	28	0	28	66%	1964	26	54%	62%
1967	37	0	37	88%	1993	26	56%	62%
1968	23	0	23	54%	1923	26	57%	62%
1969	42	0	42	100%	1989	26	58%	62%
1970	30	0	30	72%	1962	25	59%	59%
1971	28	0	28	66%	1950	23	60%	56%
1972	22	0	22	52%	1968	23	62%	54%
1973	33	0	33	78%	1947	23	63%	54%
1974	32	0	32	75%	1994	22	64%	52%
1975	30	0	30	71%	1972	22	65%	52%
1976	19	0	19	45%	1948	22	67%	52%
1977	3	0	3	8%	1953	22	68%	52%
1978	36	0	36	86%	1957	22	69%	51%
1979	31	0	31	75%	1960	21	70%	50%
1980	42	0	42	100%	1926	21	72%	49%
1981	18	0	18	43%	1930	20	73%	47%
1982	42	0	42	100%	1925	20	74%	47%
1983	42	0	42	100%	1932	20	75%	47%
1984	36	0	36	86%	1959	20	77%	47%
1985	29	0	29	69%	1976	19	78%	45%
1986	35	0	35	84%	1955	19	79%	45%
1987	9	0	9	22%	1939	19	80%	44%
1988	6	0	6	15%	1981	18	81%	43%
1989	26	0	26	62%	1949	18	83%	42%
1990	11	0	11	27%	1944	17	84%	40%
1991	7	0	7	16%	1961	17	85%	40%
1992	10	0	10	24%	1933	15	86%	36%
1993	26	0	26	62%	1934	12	88%	29%
1994	22	0	22	52%	2001	12	89%	28%
1995	38	0	38	91%	1990	11	90%	27%
1996	31	0	31	73%	1992	10	91%	24%
1997	36	0	36	85%	1987	9	93%	22%
1998	39	0	39	94%	1931	9	94%	20%
1999	28	0	28	67%	1929	8	95%	18%
2000	30	0	30	72%	1924	8	96%	18%
2001	12	0	12	28%	1991	7	98%	16%
2002	27	0	27	65%	1988	6	99%	15%
2003	29	0	29	69%	1977	3	100%	8%
Average	26	0	26	62%		26		62%
Maximum	42	0	42	100%		42		100%
Minimum	3	0	3	8%		3		8%

Table C.7. Antelope Valley-East Kern WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	103	0	103	73%	1938	141	0%	100%
1923	87	0	87	62%	1969	141	1%	100%
1924	25	0	25	18%	1969	141	2%	100%
1925	67	0	67	47%	1969	141	4%	100%
1926	69	0	69	49%	1980	141	5%	100%
1927	92	0	92	65%	1998	133	6%	94%
1928	108	0	108	76%	1958	129	7%	91%
1929	26	0	26	18%	1952	128	9%	91%
1930	67	0	67	47%	1956	126	10%	89%
1931	29	0	29	20%	1941	122	11%	86%
1932	67	0	67	47%	1984	122	12%	86%
1933	51	0	51	36%	1978	122	14%	86%
1934	40	0	40	29%	1943	121	15%	86%
1935	92	0	92	65%	1997	120	16%	85%
1936	104	0	104	74%	1967	117	17%	82%
1937	105	0	105	74%	1951	112	19%	79%
1938	141	0	141	100%	1973	110	20%	78%
1939	34	0	34	24%	1928	108	21%	76%
1940	94	0	94	66%	1974	106	22%	75%
1941	122	0	122	86%	1979	106	23%	75%
1942	105	0	105	74%	1942	105	25%	74%
1943	121	0	121	86%	1945	105	26%	74%
1944	57	0	57	40%	1937	105	27%	74%
1945	105	0	105	74%	1936	104	28%	74%
1946	99	0	99	70%	1986	103	30%	73%
1947	68	0	68	48%	1922	103	31%	73%
1948	73	0	73	52%	1996	103	32%	73%
1949	60	0	60	42%	1970	102	33%	72%
1950	78	0	78	56%	2000	101	35%	72%
1951	112	0	112	79%	1975	100	36%	71%
1952	128	0	128	91%	1995	99	37%	70%
1953	73	0	73	52%	1946	99	38%	70%
1954	89	0	89	63%	1965	98	40%	69%
1955	63	0	63	45%	1963	97	41%	68%
1956	126	0	126	89%	1999	94	42%	67%
1957	73	0	73	51%	1966	94	43%	66%
1958	129	0	129	91%	1940	94	44%	66%
1959	66	0	66	47%	1971	93	46%	66%
1960	71	0	71	50%	1935	92	47%	65%
1961	25	0	25	18%	1927	92	48%	65%
1962	84	0	84	59%	1954	89	49%	63%
1963	97	0	97	68%	1993	88	51%	62%
1964	51	0	51	36%	1923	87	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	98	0	98	69%	1985	84	53%	60%
1966	94	0	94	66%	1962	84	54%	59%
1967	117	0	117	82%	1989	81	56%	57%
1968	77	0	77	54%	1950	78	57%	56%
1969	141	0	141	100%	1968	77	58%	54%
1970	102	0	102	72%	1972	73	59%	52%
1971	93	0	93	66%	1948	73	60%	52%
1972	73	0	73	52%	1953	73	62%	52%
1973	110	0	110	78%	1957	73	63%	51%
1974	106	0	106	75%	1960	71	64%	50%
1975	100	0	100	71%	1926	69	65%	49%
1976	64	0	64	45%	1947	68	67%	48%
1977	11	0	11	8%	1930	67	68%	47%
1978	122	0	122	86%	1925	67	69%	47%
1979	106	0	106	75%	1932	67	70%	47%
1980	141	0	141	100%	1959	66	72%	47%
1981	61	0	61	43%	2003	65	73%	46%
1982	141	0	141	100%	1976	64	74%	45%
1983	141	0	141	100%	1955	63	75%	45%
1984	122	0	122	86%	1981	61	77%	43%
1985	84	0	84	60%	1949	60	78%	42%
1986	103	0	103	73%	1944	57	79%	40%
1987	31	0	31	22%	1964	51	80%	36%
1988	22	0	22	15%	2002	51	81%	36%
1989	81	0	81	57%	1933	51	83%	36%
1990	17	0	17	12%	1994	45	84%	32%
1991	23	0	23	16%	1934	40	85%	29%
1992	34	0	34	24%	2001	40	86%	28%
1993	88	0	88	62%	1992	34	88%	24%
1994	45	0	45	32%	1939	34	89%	24%
1995	99	0	99	70%	1987	31	90%	22%
1996	103	0	103	73%	1931	29	91%	20%
1997	120	0	120	85%	1929	26	93%	18%
1998	133	0	133	94%	1924	25	94%	18%
1999	94	0	94	67%	1961	25	95%	18%
2000	101	0	101	72%	1991	23	96%	16%
2001	40	0	40	28%	1988	22	98%	15%
2002	51	0	51	36%	1990	17	99%	12%
2003	65	0	65	46%	1977	11	100%	8%
Average	83	0	83	59%		83		59%
Maximum	141	0	141	100%		141		100%
Minimum	11	0	11	8%		11		8%

Table C.8. Castaic Lake WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	69	0	69	73%	1958	95	0%	100%
1923	59	0	59	62%	1969	95	1%	100%
1924	17	0	17	18%	1969	95	2%	100%
1925	45	0	45	47%	1969	95	4%	100%
1926	47	0	47	49%	1938	95	5%	100%
1927	62	0	62	65%	1980	95	6%	100%
1928	73	0	73	76%	1952	92	7%	97%
1929	17	0	17	18%	1998	89	9%	94%
1930	45	0	45	47%	1943	88	10%	92%
1931	19	0	19	20%	1995	86	11%	90%
1932	45	0	45	47%	1956	85	12%	89%
1933	34	0	34	36%	1967	84	14%	88%
1934	27	0	27	29%	1941	82	15%	86%
1935	62	0	62	65%	1984	82	16%	86%
1936	70	0	70	74%	1978	82	17%	86%
1937	70	0	70	74%	1997	81	19%	85%
1938	95	0	95	100%	1986	80	20%	84%
1939	40	0	40	42%	1951	75	21%	79%
1940	63	0	63	66%	1973	74	22%	78%
1941	82	0	82	86%	1928	73	23%	76%
1942	71	0	71	74%	1974	71	25%	75%
1943	88	0	88	92%	1979	71	26%	75%
1944	38	0	38	40%	1942	71	27%	74%
1945	71	0	71	74%	1945	71	28%	74%
1946	66	0	66	70%	1937	70	30%	74%
1947	48	0	48	51%	1936	70	31%	74%
1948	49	0	49	52%	1922	69	32%	73%
1949	40	0	40	42%	1996	69	33%	73%
1950	53	0	53	56%	1970	69	35%	72%
1951	75	0	75	79%	2000	68	36%	72%
1952	92	0	92	97%	1975	68	37%	71%
1953	49	0	49	52%	1946	66	38%	70%
1954	60	0	60	63%	1965	66	40%	69%
1955	43	0	43	45%	1963	65	41%	68%
1956	85	0	85	89%	1985	64	42%	67%
1957	49	0	49	51%	1999	63	43%	67%
1958	95	0	95	100%	1966	63	44%	66%
1959	45	0	45	47%	1940	63	46%	66%
1960	45	0	45	47%	1971	62	47%	66%
1961	36	0	36	38%	1935	62	48%	65%
1962	56	0	56	59%	1927	62	49%	65%
1963	65	0	65	68%	1954	60	51%	63%
1964	59	0	59	62%	1964	59	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	66	0	66	69%	1993	59	53%	62%
1966	63	0	63	66%	1923	59	54%	62%
1967	84	0	84	88%	2002	59	56%	61%
1968	52	0	52	54%	1989	58	57%	61%
1969	95	0	95	100%	1962	56	58%	59%
1970	69	0	69	72%	1950	53	59%	56%
1971	62	0	62	66%	1968	52	60%	54%
1972	49	0	49	52%	1972	49	62%	52%
1973	74	0	74	78%	1948	49	63%	52%
1974	71	0	71	75%	1953	49	64%	52%
1975	68	0	68	71%	1957	49	65%	51%
1976	43	0	43	45%	1947	48	67%	51%
1977	8	0	8	8%	1994	47	68%	50%
1978	82	0	82	86%	2003	47	69%	49%
1979	71	0	71	75%	1926	47	70%	49%
1980	95	0	95	100%	1930	45	72%	47%
1981	41	0	41	43%	1925	45	73%	47%
1982	95	0	95	100%	1960	45	74%	47%
1983	95	0	95	100%	1932	45	75%	47%
1984	82	0	82	86%	1959	45	77%	47%
1985	64	0	64	67%	1976	43	78%	45%
1986	80	0	80	84%	1955	43	79%	45%
1987	21	0	21	22%	1981	41	80%	43%
1988	15	0	15	15%	1949	40	81%	42%
1989	58	0	58	61%	1939	40	83%	42%
1990	24	0	24	25%	1944	38	84%	40%
1991	15	0	15	16%	1961	36	85%	38%
1992	23	0	23	24%	1933	34	86%	36%
1993	59	0	59	62%	1934	27	88%	29%
1994	47	0	47	50%	2001	27	89%	28%
1995	86	0	86	90%	1990	24	90%	25%
1996	69	0	69	73%	1992	23	91%	24%
1997	81	0	81	85%	1987	21	93%	22%
1998	89	0	89	94%	1931	19	94%	20%
1999	63	0	63	67%	1929	17	95%	18%
2000	68	0	68	72%	1924	17	96%	18%
2001	27	0	27	28%	1991	15	98%	16%
2002	59	0	59	61%	1988	15	99%	15%
2003	47	0	47	49%	1977	8	100%	8%
Average	58	0	58	61%		58		61%
Maximum	95	0	95	100%		95		100%
Minimum	8	0	8	8%		8		8%

Table C.9. Coachella Valley WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	93	0	93	67%	1938	136	0%	98%
1923	84	7	91	66%	1980	136	1%	98%
1924	25	2	27	19%	1983	136	2%	98%
1925	65	0	65	47%	1952	132	4%	96%
1926	68	0	68	49%	1998	129	5%	93%
1927	86	0	86	62%	1982	128	6%	93%
1928	98	4	102	74%	1958	128	7%	93%
1929	25	8	33	24%	1958	128	9%	93%
1930	66	0	66	47%	2003	120	10%	87%
1931	28	0	28	20%	1967	118	11%	85%
1932	65	0	65	47%	1995	117	12%	85%
1933	49	0	49	36%	1997	116	14%	84%
1934	40	0	40	29%	1941	116	15%	84%
1935	87	0	87	63%	1986	115	16%	83%
1936	95	4	98	71%	1956	114	17%	82%
1937	95	7	102	74%	1984	111	19%	80%
1938	128	7	136	98%	1978	111	20%	80%
1939	61	10	71	51%	1979	105	21%	76%
1940	87	0	87	63%	1974	104	22%	75%
1941	111	5	116	84%	1970	103	23%	74%
1942	96	2	98	71%	1937	102	25%	74%
1943	88	7	95	69%	1996	102	26%	74%
1944	56	9	65	47%	1928	102	27%	74%
1945	95	0	95	69%	1951	102	28%	74%
1946	90	7	97	70%	1973	100	30%	72%
1947	74	7	81	59%	1975	99	31%	71%
1948	71	0	71	52%	1936	98	32%	71%
1949	58	0	58	42%	1942	98	33%	71%
1950	77	0	77	56%	1985	97	35%	70%
1951	102	0	102	74%	2000	97	36%	70%
1952	125	8	132	96%	1946	97	37%	70%
1953	71	10	81	59%	1999	96	38%	69%
1954	85	0	85	61%	1945	95	40%	69%
1955	62	3	65	47%	1943	95	41%	69%
1956	114	0	114	82%	1966	94	42%	68%
1957	71	9	80	58%	1922	93	43%	67%
1958	128	0	128	93%	1971	93	44%	67%
1959	65	10	75	54%	1965	91	46%	66%
1960	69	0	69	50%	1923	91	47%	66%
1961	55	0	55	40%	1964	91	48%	66%
1962	81	0	81	59%	1963	88	49%	64%
1963	88	0	88	64%	1940	87	51%	63%
1964	84	7	91	66%	1935	87	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	89	2	91	66%	2002	86	53%	62%
1966	87	7	94	68%	1927	86	54%	62%
1967	113	5	118	85%	1954	85	56%	61%
1968	75	7	82	59%	1989	84	57%	61%
1969	128	0	128	93%	1993	84	58%	60%
1970	93	10	103	74%	1968	82	59%	59%
1971	86	7	93	67%	1962	81	60%	59%
1972	72	5	76	55%	1947	81	62%	59%
1973	100	0	100	72%	1953	81	63%	59%
1974	96	8	104	75%	1957	80	64%	58%
1975	91	7	99	71%	1950	77	65%	56%
1976	62	7	69	50%	1972	76	67%	55%
1977	11	0	11	8%	1959	75	68%	54%
1978	111	0	111	80%	1994	74	69%	54%
1979	96	9	105	76%	1948	71	70%	52%
1980	128	7	136	98%	1939	71	72%	51%
1981	59	10	69	50%	1976	69	73%	50%
1982	128	0	128	93%	1981	69	74%	50%
1983	128	7	136	98%	1960	69	75%	50%
1984	111	0	111	80%	1926	68	77%	49%
1985	89	9	97	70%	1930	66	78%	47%
1986	108	7	115	83%	1925	65	79%	47%
1987	30	8	38	28%	1932	65	80%	47%
1988	21	0	21	15%	1944	65	81%	47%
1989	84	0	84	61%	1955	65	83%	47%
1990	37	2	38	28%	1949	58	84%	42%
1991	22	0	22	16%	1961	55	85%	40%
1992	33	0	33	24%	1933	49	86%	36%
1993	84	0	84	60%	2001	46	88%	33%
1994	72	2	74	54%	1934	40	89%	29%
1995	117	0	117	85%	1990	38	90%	28%
1996	93	9	102	74%	1987	38	91%	28%
1997	109	7	116	84%	1992	33	93%	24%
1998	120	8	129	93%	1929	33	94%	24%
1999	87	9	96	69%	1931	28	95%	20%
2000	92	5	97	70%	1924	27	96%	19%
2001	39	7	46	33%	1991	22	98%	16%
2002	86	0	86	62%	1988	21	99%	15%
2003	117	3	120	87%	1977	11	100%	8%
Average	81	4	85	61%		85		61%
Maximum	128	10	136	98%		136		98%
Minimum	11	0	11	8%		11		8%

Table C.10. County of Kings: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	7	0	7	73%	1938	9	0%	100%
1923	6	0	6	62%	1938	9	1%	100%
1924	2	0	2	18%	1938	9	2%	100%
1925	4	0	4	47%	1938	9	4%	100%
1926	5	0	5	49%	1938	9	5%	100%
1927	6	0	6	65%	1980	9	6%	100%
1928	7	0	7	76%	1952	9	7%	97%
1929	2	0	2	18%	1998	9	9%	94%
1930	4	0	4	47%	1943	9	10%	92%
1931	2	0	2	20%	1956	8	11%	89%
1932	4	0	4	47%	1967	8	12%	88%
1933	3	0	3	36%	1941	8	14%	86%
1934	3	0	3	29%	1984	8	15%	86%
1935	6	0	6	65%	1978	8	16%	86%
1936	7	0	7	74%	1997	8	17%	85%
1937	7	0	7	74%	1986	8	19%	84%
1938	9	0	9	100%	1995	7	20%	80%
1939	2	0	2	17%	1951	7	21%	79%
1940	6	0	6	66%	1973	7	22%	78%
1941	8	0	8	86%	1928	7	23%	76%
1942	7	0	7	74%	1974	7	25%	75%
1943	9	0	9	92%	1979	7	26%	75%
1944	4	0	4	40%	1942	7	27%	74%
1945	7	0	7	74%	1945	7	28%	74%
1946	6	0	6	70%	1937	7	30%	74%
1947	3	0	3	27%	1936	7	31%	74%
1948	5	0	5	52%	1922	7	32%	73%
1949	4	0	4	42%	1996	7	33%	73%
1950	5	0	5	56%	1970	7	35%	72%
1951	7	0	7	79%	2000	7	36%	72%
1952	9	0	9	97%	1975	7	37%	71%
1953	5	0	5	52%	1946	6	38%	70%
1954	6	0	6	63%	1965	6	40%	69%
1955	4	0	4	45%	1963	6	41%	68%
1956	8	0	8	89%	1999	6	42%	67%
1957	5	0	5	51%	1966	6	43%	66%
1958	9	0	9	100%	1940	6	44%	66%
1959	4	0	4	47%	1971	6	46%	66%
1960	2	0	2	25%	1935	6	47%	65%
1961	2	0	2	20%	1927	6	48%	65%
1962	5	0	5	59%	1954	6	49%	63%
1963	6	0	6	68%	1964	6	51%	62%
1964	6	0	6	62%	1993	6	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	6	0	6	69%	1923	6	53%	62%
1966	6	0	6	66%	1962	5	54%	59%
1967	8	0	8	88%	1950	5	56%	56%
1968	5	0	5	54%	1968	5	57%	54%
1969	9	0	9	100%	1989	5	58%	54%
1970	7	0	7	72%	1972	5	59%	52%
1971	6	0	6	66%	1948	5	60%	52%
1972	5	0	5	52%	1953	5	62%	52%
1973	7	0	7	78%	1957	5	63%	51%
1974	7	0	7	75%	1926	5	64%	49%
1975	7	0	7	71%	1930	4	65%	47%
1976	4	0	4	45%	1925	4	67%	47%
1977	1	0	1	8%	1932	4	68%	47%
1978	8	0	8	86%	2003	4	69%	47%
1979	7	0	7	75%	1959	4	70%	47%
1980	9	0	9	100%	1976	4	72%	45%
1981	4	0	4	43%	1955	4	73%	45%
1982	9	0	9	100%	1985	4	74%	43%
1983	9	0	9	100%	1981	4	75%	43%
1984	8	0	8	86%	1949	4	77%	42%
1985	4	0	4	43%	1944	4	78%	40%
1986	8	0	8	84%	1933	3	79%	36%
1987	2	0	2	22%	2002	3	80%	32%
1988	1	0	1	15%	1934	3	81%	29%
1989	5	0	5	54%	2001	3	83%	28%
1990	1	0	1	10%	1947	3	84%	27%
1991	1	0	1	16%	1994	2	85%	26%
1992	2	0	2	24%	1960	2	86%	25%
1993	6	0	6	62%	1992	2	88%	24%
1994	2	0	2	26%	1987	2	89%	22%
1995	7	0	7	80%	1931	2	90%	20%
1996	7	0	7	73%	1961	2	91%	20%
1997	8	0	8	85%	1929	2	93%	18%
1998	9	0	9	94%	1924	2	94%	18%
1999	6	0	6	67%	1939	2	95%	17%
2000	7	0	7	72%	1991	1	96%	16%
2001	3	0	3	28%	1988	1	98%	15%
2002	3	0	3	32%	1990	1	99%	10%
2003	4	0	4	47%	1977	1	100%	8%
Average	5	0	5	59%		5		59%
Maximum	9	0	9	100%		9		100%
Minimum	1	0	1	8%		1		8%

Table C.11. Crestline-Lake Arrowhead WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	73%	1982	6	0%	100%
1923	4	0	4	62%	1983	6	1%	100%
1924	1	0	1	18%	1958	6	2%	100%
1925	3	0	3	47%	1938	6	4%	100%
1926	3	0	3	49%	1938	6	5%	100%
1927	4	0	4	65%	1980	6	6%	100%
1928	4	0	4	76%	1952	6	7%	97%
1929	1	0	1	18%	1998	5	9%	94%
1930	3	0	3	47%	1943	5	10%	92%
1931	1	0	1	20%	1995	5	11%	91%
1932	3	0	3	47%	1956	5	12%	89%
1933	2	0	2	36%	1967	5	14%	88%
1934	2	0	2	29%	1941	5	15%	86%
1935	4	0	4	65%	1984	5	16%	86%
1936	4	0	4	74%	1978	5	17%	86%
1937	4	0	4	74%	1997	5	19%	85%
1938	6	0	6	100%	1986	5	20%	84%
1939	1	0	1	22%	1951	5	21%	79%
1940	4	0	4	66%	1973	5	22%	78%
1941	5	0	5	86%	1928	4	23%	76%
1942	4	0	4	74%	1974	4	25%	75%
1943	5	0	5	92%	1979	4	26%	75%
1944	2	0	2	40%	1942	4	27%	74%
1945	4	0	4	74%	1945	4	28%	74%
1946	4	0	4	70%	1937	4	30%	74%
1947	3	0	3	54%	1936	4	31%	74%
1948	3	0	3	52%	1922	4	32%	73%
1949	2	0	2	42%	1996	4	33%	73%
1950	3	0	3	56%	1970	4	35%	72%
1951	5	0	5	79%	2000	4	36%	72%
1952	6	0	6	97%	1975	4	37%	71%
1953	3	0	3	52%	1946	4	38%	70%
1954	4	0	4	63%	1965	4	40%	69%
1955	3	0	3	45%	1985	4	41%	69%
1956	5	0	5	89%	1963	4	42%	68%
1957	3	0	3	51%	1999	4	43%	67%
1958	6	0	6	100%	1966	4	44%	66%
1959	3	0	3	47%	1940	4	46%	66%
1960	3	0	3	50%	1971	4	47%	66%
1961	2	0	2	40%	2003	4	48%	65%
1962	3	0	3	59%	1935	4	49%	65%
1963	4	0	4	68%	1927	4	51%	65%
1964	4	0	4	62%	2002	4	52%	65%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	4	0	4	69%	1954	4	53%	63%
1966	4	0	4	66%	1964	4	54%	62%
1967	5	0	5	88%	1993	4	56%	62%
1968	3	0	3	54%	1923	4	57%	62%
1969	6	0	6	100%	1989	4	58%	62%
1970	4	0	4	72%	1962	3	59%	59%
1971	4	0	4	66%	1950	3	60%	56%
1972	3	0	3	52%	1968	3	62%	54%
1973	5	0	5	78%	1947	3	63%	54%
1974	4	0	4	75%	1994	3	64%	52%
1975	4	0	4	71%	1972	3	65%	52%
1976	3	0	3	45%	1948	3	67%	52%
1977	0	0	0	8%	1953	3	68%	52%
1978	5	0	5	86%	1957	3	69%	51%
1979	4	0	4	75%	1960	3	70%	50%
1980	6	0	6	100%	1926	3	72%	49%
1981	2	0	2	43%	1930	3	73%	47%
1982	6	0	6	100%	1925	3	74%	47%
1983	6	0	6	100%	1932	3	75%	47%
1984	5	0	5	86%	1959	3	77%	47%
1985	4	0	4	69%	1976	3	78%	45%
1986	5	0	5	84%	1955	3	79%	45%
1987	1	0	1	22%	1981	2	80%	43%
1988	1	0	1	15%	1949	2	81%	42%
1989	4	0	4	62%	1944	2	83%	40%
1990	2	0	2	27%	1961	2	84%	40%
1991	1	0	1	16%	1933	2	85%	36%
1992	1	0	1	24%	1934	2	86%	29%
1993	4	0	4	62%	2001	2	88%	28%
1994	3	0	3	52%	1990	2	89%	27%
1995	5	0	5	91%	1992	1	90%	24%
1996	4	0	4	73%	1939	1	91%	22%
1997	5	0	5	85%	1987	1	93%	22%
1998	5	0	5	94%	1931	1	94%	20%
1999	4	0	4	67%	1929	1	95%	18%
2000	4	0	4	72%	1924	1	96%	18%
2001	2	0	2	28%	1991	1	98%	16%
2002	4	0	4	65%	1988	1	99%	15%
2003	4	0	4	65%	1977	0	100%	8%
Average	4	0	4	61%		4		61%
Maximum	6	0	6	100%		6		100%
Minimum	0	0	0	8%		0		8%

Table C.12. Desert WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	32	0	32	57%	1983	53	0%	94%
1923	32	7	39	70%	2003	51	1%	92%
1924	10	2	12	22%	1980	51	2%	91%
1925	26	0	26	47%	1938	50	4%	91%
1926	27	0	27	49%	1952	50	5%	89%
1927	31	0	31	56%	1998	49	6%	88%
1928	33	5	38	69%	1943	47	7%	85%
1929	10	9	19	35%	1958	44	9%	79%
1930	26	0	26	47%	1958	44	10%	79%
1931	11	0	11	20%	1982	44	11%	79%
1932	26	0	26	47%	1997	44	12%	78%
1933	20	0	20	36%	1967	43	14%	77%
1934	16	0	16	29%	1941	42	15%	76%
1935	32	0	32	57%	1999	42	16%	75%
1936	32	4	36	65%	1970	41	17%	74%
1937	32	8	41	73%	1979	41	19%	73%
1938	44	7	50	91%	1937	41	20%	73%
1939	25	9	34	61%	1984	40	21%	73%
1940	31	0	31	56%	1964	40	22%	72%
1941	38	4	42	76%	1995	40	23%	72%
1942	33	1	34	60%	1975	40	25%	72%
1943	41	7	47	85%	1974	40	26%	72%
1944	22	4	27	48%	1986	40	27%	72%
1945	33	0	33	58%	1971	40	28%	71%
1946	31	7	37	67%	1957	39	30%	70%
1947	30	6	36	65%	1956	39	31%	70%
1948	29	0	29	52%	1923	39	32%	70%
1949	23	0	23	42%	1985	39	33%	69%
1950	31	0	31	56%	1928	38	35%	69%
1951	35	0	35	62%	1953	38	36%	69%
1952	43	7	50	89%	1959	38	37%	68%
1953	29	10	38	69%	1978	38	38%	68%
1954	32	0	32	57%	2000	38	40%	68%
1955	25	4	28	51%	1946	37	41%	67%
1956	39	0	39	70%	1966	37	42%	67%
1957	29	11	39	70%	1996	37	43%	66%
1958	44	0	44	79%	1936	36	44%	65%
1959	26	12	38	68%	1947	36	46%	65%
1960	28	0	28	50%	1981	36	47%	64%
1961	22	0	22	40%	1951	35	48%	62%
1962	33	0	33	58%	1972	34	49%	62%
1963	30	0	31	55%	1973	34	51%	61%
1964	33	8	40	72%	1939	34	52%	61%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	30	1	32	57%	1942	34	53%	60%
1966	31	6	37	67%	1976	34	54%	60%
1967	39	4	43	77%	1968	33	56%	59%
1968	30	3	33	59%	1989	33	57%	58%
1969	44	0	44	79%	1945	33	58%	58%
1970	32	9	41	74%	1962	33	59%	58%
1971	31	9	40	71%	2002	32	60%	57%
1972	29	5	34	62%	1993	32	62%	57%
1973	34	0	34	61%	1965	32	63%	57%
1974	33	7	40	72%	1922	32	64%	57%
1975	31	9	40	72%	1935	32	65%	57%
1976	25	8	34	60%	1954	32	67%	57%
1977	4	0	4	8%	1994	32	68%	57%
1978	38	0	38	68%	1927	31	69%	56%
1979	33	8	41	73%	1950	31	70%	56%
1980	44	7	51	91%	1940	31	72%	56%
1981	24	12	36	64%	1963	31	73%	55%
1982	44	0	44	79%	1948	29	74%	52%
1983	44	9	53	94%	1955	28	75%	51%
1984	38	3	40	73%	1960	28	77%	50%
1985	30	8	39	69%	1926	27	78%	49%
1986	37	3	40	72%	1944	27	79%	48%
1987	12	4	16	29%	1930	26	80%	47%
1988	9	0	9	15%	1925	26	81%	47%
1989	33	0	33	58%	1932	26	83%	47%
1990	15	2	17	30%	1949	23	84%	42%
1991	9	0	9	16%	2001	22	85%	40%
1992	13	0	13	24%	1961	22	86%	40%
1993	32	0	32	57%	1933	20	88%	36%
1994	29	3	32	57%	1929	19	89%	35%
1995	40	0	40	72%	1990	17	90%	30%
1996	32	5	37	66%	1987	16	91%	29%
1997	37	6	44	78%	1934	16	93%	29%
1998	41	8	49	88%	1992	13	94%	24%
1999	31	11	42	75%	1924	12	95%	22%
2000	31	6	38	68%	1931	11	96%	20%
2001	16	7	22	40%	1991	9	98%	16%
2002	32	0	32	57%	1988	9	99%	15%
2003	47	4	51	92%	1977	4	100%	8%
Average	30	4	33	60%		33		60%
Maximum	47	12	53	94%		53		94%
Minimum	4	0	4	8%		4		8%

Table C.13. Dudley Ridge WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	37	0	37	73%	1969	50	0%	100%
1923	31	0	31	62%	1969	50	1%	100%
1924	9	0	9	18%	1938	50	2%	100%
1925	24	0	24	47%	1958	50	4%	100%
1926	25	0	25	49%	1958	50	5%	100%
1927	33	0	33	65%	1980	50	6%	100%
1928	38	0	38	76%	1952	49	7%	97%
1929	9	0	9	18%	1998	47	9%	94%
1930	24	0	24	47%	1943	47	10%	92%
1931	10	0	10	20%	1956	45	11%	89%
1932	24	0	24	47%	1967	44	12%	88%
1933	18	0	18	36%	1941	44	14%	86%
1934	14	0	14	29%	1984	43	15%	86%
1935	33	0	33	65%	1978	43	16%	86%
1936	37	0	37	74%	1997	43	17%	85%
1937	37	0	37	74%	1951	40	19%	79%
1938	50	0	50	100%	1973	39	20%	78%
1939	16	0	16	31%	1995	39	21%	78%
1940	33	0	33	66%	1928	38	22%	76%
1941	44	0	44	86%	1974	38	23%	75%
1942	37	0	37	74%	1979	38	25%	75%
1943	47	0	47	92%	1942	37	26%	74%
1944	20	0	20	40%	1945	37	27%	74%
1945	37	0	37	74%	1937	37	28%	74%
1946	35	0	35	70%	1936	37	30%	74%
1947	27	0	27	54%	1922	37	31%	73%
1948	26	0	26	52%	1996	37	32%	73%
1949	21	0	21	42%	1970	36	33%	72%
1950	28	0	28	56%	1986	36	35%	72%
1951	40	0	40	79%	2000	36	36%	72%
1952	49	0	49	97%	1975	36	37%	71%
1953	26	0	26	52%	1946	35	38%	70%
1954	32	0	32	63%	1965	35	40%	69%
1955	23	0	23	45%	1963	34	41%	68%
1956	45	0	45	89%	1999	33	42%	67%
1957	26	0	26	51%	1966	33	43%	66%
1958	50	0	50	100%	1940	33	44%	66%
1959	24	0	24	47%	1971	33	46%	66%
1960	25	0	25	50%	1935	33	47%	65%
1961	20	0	20	40%	1927	33	48%	65%
1962	30	0	30	59%	1954	32	49%	63%
1963	34	0	34	68%	1964	31	51%	62%
1964	31	0	31	62%	1993	31	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	35	0	35	69%	1923	31	53%	62%
1966	33	0	33	66%	1989	30	54%	60%
1967	44	0	44	88%	1962	30	56%	59%
1968	27	0	27	54%	1950	28	57%	56%
1969	50	0	50	100%	2003	28	58%	55%
1970	36	0	36	72%	1968	27	59%	54%
1971	33	0	33	66%	1947	27	60%	54%
1972	26	0	26	52%	2002	26	62%	52%
1973	39	0	39	78%	1994	26	63%	52%
1974	38	0	38	75%	1972	26	64%	52%
1975	36	0	36	71%	1948	26	65%	52%
1976	23	0	23	45%	1953	26	67%	52%
1977	4	0	4	8%	1957	26	68%	51%
1978	43	0	43	86%	1960	25	69%	50%
1979	38	0	38	75%	1926	25	70%	49%
1980	50	0	50	100%	1930	24	72%	47%
1981	15	0	15	31%	1925	24	73%	47%
1982	50	0	50	100%	1932	24	74%	47%
1983	50	0	50	100%	1959	24	75%	47%
1984	43	0	43	86%	1985	23	77%	46%
1985	23	0	23	46%	1976	23	78%	45%
1986	36	0	36	72%	1955	23	79%	45%
1987	11	0	11	21%	1949	21	80%	42%
1988	7	0	7	15%	1944	20	81%	40%
1989	30	0	30	60%	1961	20	83%	40%
1990	13	0	13	26%	1933	18	84%	36%
1991	8	0	8	16%	1939	16	85%	31%
1992	12	0	12	23%	1981	15	86%	31%
1993	31	0	31	62%	1934	14	88%	29%
1994	26	0	26	52%	2001	14	89%	28%
1995	39	0	39	78%	1990	13	90%	26%
1996	37	0	37	73%	1992	12	91%	23%
1997	43	0	43	85%	1987	11	93%	21%
1998	47	0	47	94%	1931	10	94%	20%
1999	33	0	33	67%	1929	9	95%	18%
2000	36	0	36	72%	1924	9	96%	18%
2001	14	0	14	28%	1991	8	98%	16%
2002	26	0	26	52%	1988	7	99%	15%
2003	28	0	28	55%	1977	4	100%	8%
Average	30	0	30	60%		30		60%
Maximum	50	0	50	100%		50		100%
Minimum	4	0	4	8%		4		8%

Table C.14. Empire West Side ID: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1	0	1	73%	1938	2	0%	100%
1923	1	0	1	62%	1938	2	1%	100%
1924	0	0	0	15%	1938	2	2%	100%
1925	1	0	1	47%	1938	2	4%	100%
1926	1	0	1	49%	1938	2	5%	100%
1927	1	0	1	65%	1980	2	6%	100%
1928	2	0	2	76%	1952	2	7%	97%
1929	0	0	0	15%	1998	2	9%	94%
1930	1	0	1	47%	1943	2	10%	92%
1931	0	0	0	17%	1956	2	11%	89%
1932	1	0	1	47%	1967	2	12%	88%
1933	1	0	1	36%	1941	2	14%	86%
1934	0	0	0	24%	1984	2	15%	86%
1935	1	0	1	65%	1978	2	16%	86%
1936	1	0	1	74%	1995	2	17%	85%
1937	1	0	1	74%	1997	2	19%	85%
1938	2	0	2	100%	1986	2	20%	84%
1939	1	0	1	44%	1951	2	21%	79%
1940	1	0	1	66%	1973	2	22%	78%
1941	2	0	2	86%	1928	2	23%	76%
1942	1	0	1	74%	1974	2	25%	75%
1943	2	0	2	92%	1979	1	26%	75%
1944	1	0	1	40%	1942	1	27%	74%
1945	1	0	1	74%	1945	1	28%	74%
1946	1	0	1	70%	1937	1	30%	74%
1947	1	0	1	43%	1936	1	31%	74%
1948	1	0	1	52%	1922	1	32%	73%
1949	1	0	1	42%	1996	1	33%	73%
1950	1	0	1	56%	1970	1	35%	72%
1951	2	0	2	79%	2000	1	36%	72%
1952	2	0	2	97%	1975	1	37%	71%
1953	1	0	1	52%	1946	1	38%	70%
1954	1	0	1	63%	1965	1	40%	69%
1955	1	0	1	45%	1985	1	41%	69%
1956	2	0	2	89%	1963	1	42%	68%
1957	1	0	1	51%	1999	1	43%	67%
1958	2	0	2	100%	1966	1	44%	66%
1959	1	0	1	47%	1940	1	46%	66%
1960	1	0	1	50%	1971	1	47%	66%
1961	1	0	1	40%	1935	1	48%	65%
1962	1	0	1	59%	1927	1	49%	65%
1963	1	0	1	68%	1954	1	51%	63%
1964	1	0	1	62%	1964	1	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	69%	1993	1	53%	62%
1966	1	0	1	66%	1923	1	54%	62%
1967	2	0	2	88%	1962	1	56%	59%
1968	1	0	1	54%	2003	1	57%	58%
1969	2	0	2	100%	1989	1	58%	58%
1970	1	0	1	72%	1950	1	59%	56%
1971	1	0	1	66%	1968	1	60%	54%
1972	1	0	1	52%	1994	1	62%	52%
1973	2	0	2	78%	1972	1	63%	52%
1974	2	0	2	75%	1948	1	64%	52%
1975	1	0	1	71%	1953	1	65%	52%
1976	1	0	1	45%	2002	1	67%	51%
1977	0	0	0	8%	1957	1	68%	51%
1978	2	0	2	86%	1960	1	69%	50%
1979	1	0	1	75%	1926	1	70%	49%
1980	2	0	2	100%	1930	1	72%	47%
1981	1	0	1	43%	1925	1	73%	47%
1982	2	0	2	100%	1932	1	74%	47%
1983	2	0	2	100%	1959	1	75%	47%
1984	2	0	2	86%	1976	1	77%	45%
1985	1	0	1	69%	1955	1	78%	45%
1986	2	0	2	84%	1939	1	79%	44%
1987	0	0	0	22%	1981	1	80%	43%
1988	0	0	0	10%	1947	1	81%	43%
1989	1	0	1	58%	1949	1	83%	42%
1990	0	0	0	18%	1944	1	84%	40%
1991	0	0	0	13%	1961	1	85%	40%
1992	0	0	0	16%	1933	1	86%	36%
1993	1	0	1	62%	2001	1	88%	28%
1994	1	0	1	52%	1934	0	89%	24%
1995	2	0	2	85%	1987	0	90%	22%
1996	1	0	1	73%	1990	0	91%	18%
1997	2	0	2	85%	1931	0	93%	17%
1998	2	0	2	94%	1992	0	94%	16%
1999	1	0	1	67%	1929	0	95%	15%
2000	1	0	1	72%	1924	0	96%	15%
2001	1	0	1	28%	1991	0	98%	13%
2002	1	0	1	51%	1988	0	99%	10%
2003	1	0	1	58%	1977	0	100%	8%
Average	1	0	1	61%		1		61%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	8%		0		8%

Table C.15. Kern County WA-AG: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	616	0	616	73%	1938	848	0%	100%
1923	525	0	525	62%	1958	848	1%	100%
1924	148	0	148	17%	1969	848	2%	100%
1925	401	0	401	47%	1969	848	4%	100%
1926	414	0	414	49%	1969	848	5%	100%
1927	551	0	551	65%	1980	847	6%	100%
1928	648	0	648	76%	1952	822	7%	97%
1929	150	0	150	18%	1998	795	9%	94%
1930	402	0	402	47%	1956	753	10%	89%
1931	167	0	167	20%	1967	745	11%	88%
1932	399	0	399	47%	1941	733	12%	86%
1933	294	0	294	35%	1995	733	14%	86%
1934	235	0	235	28%	1984	732	15%	86%
1935	554	0	554	65%	1978	731	16%	86%
1936	625	0	625	74%	1997	721	17%	85%
1937	628	0	628	74%	1943	718	19%	85%
1938	848	0	848	100%	1951	672	20%	79%
1939	219	0	219	26%	1973	662	21%	78%
1940	562	0	562	66%	1986	651	22%	77%
1941	733	0	733	86%	1928	648	23%	76%
1942	632	0	632	74%	1974	636	25%	75%
1943	718	0	718	85%	1979	635	26%	75%
1944	336	0	336	40%	1942	632	27%	74%
1945	629	0	629	74%	1945	629	28%	74%
1946	591	0	591	70%	1937	628	30%	74%
1947	388	0	388	46%	1936	625	31%	74%
1948	438	0	438	52%	1922	616	32%	73%
1949	357	0	357	42%	1996	616	33%	73%
1950	471	0	471	56%	1970	611	35%	72%
1951	672	0	672	79%	2000	607	36%	72%
1952	822	0	822	97%	1975	602	37%	71%
1953	438	0	438	52%	1946	591	38%	70%
1954	536	0	536	63%	1965	589	40%	69%
1955	380	0	380	45%	1963	579	41%	68%
1956	753	0	753	89%	1985	567	42%	67%
1957	436	0	436	51%	1999	564	43%	67%
1958	848	0	848	100%	1966	564	44%	66%
1959	397	0	397	47%	1940	562	46%	66%
1960	392	0	392	46%	1971	556	47%	66%
1961	191	0	191	22%	1935	554	48%	65%
1962	501	0	501	59%	1927	551	49%	65%
1963	579	0	579	68%	1954	536	51%	63%
1964	404	0	404	48%	1993	525	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	589	0	589	69%	1923	525	53%	62%
1966	564	0	564	66%	1962	501	54%	59%
1967	745	0	745	88%	1989	497	56%	59%
1968	461	0	461	54%	1950	471	57%	56%
1969	848	0	848	100%	1968	461	58%	54%
1970	611	0	611	72%	2003	461	59%	54%
1971	556	0	556	66%	1972	440	60%	52%
1972	440	0	440	52%	1948	438	62%	52%
1973	662	0	662	78%	1953	438	63%	52%
1974	636	0	636	75%	1957	436	64%	51%
1975	602	0	602	71%	1926	414	65%	49%
1976	368	0	368	43%	1964	404	67%	48%
1977	68	0	68	8%	1930	402	68%	47%
1978	731	0	731	86%	1925	401	69%	47%
1979	635	0	635	75%	1932	399	70%	47%
1980	847	0	847	100%	1959	397	72%	47%
1981	350	0	350	41%	1960	392	73%	46%
1982	848	0	848	100%	1947	388	74%	46%
1983	848	0	848	100%	1955	380	75%	45%
1984	732	0	732	86%	1976	368	77%	43%
1985	567	0	567	67%	1949	357	78%	42%
1986	651	0	651	77%	1981	350	79%	41%
1987	173	0	173	20%	1944	336	80%	40%
1988	122	0	122	14%	2002	328	81%	39%
1989	497	0	497	59%	1933	294	83%	35%
1990	131	0	131	16%	1994	264	84%	31%
1991	132	0	132	16%	2001	239	85%	28%
1992	137	0	137	16%	1934	235	86%	28%
1993	525	0	525	62%	1939	219	88%	26%
1994	264	0	264	31%	1961	191	89%	22%
1995	733	0	733	86%	1987	173	90%	20%
1996	616	0	616	73%	1931	167	91%	20%
1997	721	0	721	85%	1929	150	93%	18%
1998	795	0	795	94%	1924	148	94%	17%
1999	564	0	564	67%	1992	137	95%	16%
2000	607	0	607	72%	1991	132	96%	16%
2001	239	0	239	28%	1990	131	98%	16%
2002	328	0	328	39%	1988	122	99%	14%
2003	461	0	461	54%	1977	68	100%	8%
Average	505	0	505	60%		505		60%
Maximum	848	0	848	100%		848		100%
Minimum	68	0	68	8%		68		8%

Table C.16. Kern County WA-MI: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	98	0	98	73%	1969	135	0%	100%
1923	83	0	83	62%	1938	135	1%	100%
1924	24	0	24	18%	1938	135	2%	100%
1925	64	0	64	47%	1938	135	4%	100%
1926	66	0	66	49%	1982	135	5%	100%
1927	88	0	88	65%	1980	134	6%	100%
1928	103	0	103	76%	1952	130	7%	97%
1929	25	0	25	18%	1998	126	9%	94%
1930	64	0	64	47%	1943	125	10%	92%
1931	27	0	27	20%	1956	120	11%	89%
1932	63	0	63	47%	1967	118	12%	88%
1933	48	0	48	36%	1995	118	14%	87%
1934	39	0	39	29%	1941	116	15%	86%
1935	88	0	88	65%	1984	116	16%	86%
1936	99	0	99	74%	1978	116	17%	86%
1937	100	0	100	74%	1997	114	19%	85%
1938	135	0	135	100%	1986	108	20%	80%
1939	33	0	33	24%	1951	107	21%	79%
1940	89	0	89	66%	1973	105	22%	78%
1941	116	0	116	86%	1928	103	23%	76%
1942	100	0	100	74%	1974	101	25%	75%
1943	125	0	125	92%	1979	101	26%	75%
1944	54	0	54	40%	1942	100	27%	74%
1945	100	0	100	74%	1945	100	28%	74%
1946	94	0	94	70%	1937	100	30%	74%
1947	51	0	51	38%	1936	99	31%	74%
1948	70	0	70	52%	1922	98	32%	73%
1949	57	0	57	42%	1996	98	33%	73%
1950	75	0	75	56%	1970	97	35%	72%
1951	107	0	107	79%	2000	96	36%	72%
1952	130	0	130	97%	1975	95	37%	71%
1953	70	0	70	52%	1946	94	38%	70%
1954	85	0	85	63%	1965	93	40%	69%
1955	60	0	60	45%	1963	92	41%	68%
1956	120	0	120	89%	1999	90	42%	67%
1957	69	0	69	51%	1966	89	43%	66%
1958	135	0	135	100%	1940	89	44%	66%
1959	63	0	63	47%	1971	88	46%	66%
1960	59	0	59	44%	1935	88	47%	65%
1961	29	0	29	21%	1927	88	48%	65%
1962	79	0	79	59%	1954	85	49%	63%
1963	92	0	92	68%	1993	83	51%	62%
1964	58	0	58	43%	1923	83	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	93	0	93	69%	1985	81	53%	60%
1966	89	0	89	66%	1989	80	54%	60%
1967	118	0	118	88%	1962	79	56%	59%
1968	73	0	73	54%	1950	75	57%	56%
1969	135	0	135	100%	1968	73	58%	54%
1970	97	0	97	72%	1972	70	59%	52%
1971	88	0	88	66%	1948	70	60%	52%
1972	70	0	70	52%	1953	70	62%	52%
1973	105	0	105	78%	1957	69	63%	51%
1974	101	0	101	75%	1926	66	64%	49%
1975	95	0	95	71%	2003	66	65%	49%
1976	61	0	61	45%	1930	64	67%	47%
1977	11	0	11	8%	1925	64	68%	47%
1978	116	0	116	86%	1932	63	69%	47%
1979	101	0	101	75%	1959	63	70%	47%
1980	134	0	134	100%	1976	61	72%	45%
1981	58	0	58	43%	1955	60	73%	45%
1982	135	0	135	100%	1960	59	74%	44%
1983	135	0	135	100%	2002	59	75%	44%
1984	116	0	116	86%	1964	58	77%	43%
1985	81	0	81	60%	1981	58	78%	43%
1986	108	0	108	80%	1949	57	79%	42%
1987	29	0	29	22%	1944	54	80%	40%
1988	21	0	21	15%	1947	51	81%	38%
1989	80	0	80	60%	1933	48	83%	36%
1990	19	0	19	14%	1994	39	84%	29%
1991	22	0	22	16%	1934	39	85%	29%
1992	32	0	32	24%	2001	38	86%	28%
1993	83	0	83	62%	1939	33	88%	24%
1994	39	0	39	29%	1992	32	89%	24%
1995	118	0	118	87%	1987	29	90%	22%
1996	98	0	98	73%	1961	29	91%	21%
1997	114	0	114	85%	1931	27	93%	20%
1998	126	0	126	94%	1929	25	94%	18%
1999	90	0	90	67%	1924	24	95%	18%
2000	96	0	96	72%	1991	22	96%	16%
2001	38	0	38	28%	1988	21	98%	15%
2002	59	0	59	44%	1990	19	99%	14%
2003	66	0	66	49%	1977	11	100%	8%
Average	80	0	80	60%		80		60%
Maximum	135	0	135	100%		135		100%
Minimum	11	0	11	8%		11		8%

Table C.17. Littlerock Creek ID: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	2	0	2	73%	1938	2	0%	100%
1923	1	0	1	62%	1938	2	1%	100%
1924	0	0	0	18%	1938	2	2%	100%
1925	1	0	1	47%	1938	2	4%	100%
1926	1	0	1	49%	1938	2	5%	100%
1927	1	0	1	65%	1980	2	6%	100%
1928	2	0	2	76%	1998	2	7%	94%
1929	0	0	0	18%	1943	2	9%	92%
1930	1	0	1	47%	1956	2	10%	89%
1931	0	0	0	20%	1967	2	11%	88%
1932	1	0	1	47%	1941	2	12%	86%
1933	1	0	1	36%	1984	2	14%	86%
1934	1	0	1	29%	1978	2	15%	86%
1935	2	0	2	65%	1995	2	16%	85%
1936	2	0	2	74%	1997	2	17%	85%
1937	2	0	2	74%	1986	2	19%	84%
1938	2	0	2	100%	1952	2	20%	83%
1939	1	0	1	25%	1951	2	21%	79%
1940	2	0	2	66%	1973	2	22%	78%
1941	2	0	2	86%	1928	2	23%	76%
1942	2	0	2	74%	1974	2	25%	75%
1943	2	0	2	92%	1979	2	26%	75%
1944	1	0	1	40%	1942	2	27%	74%
1945	2	0	2	74%	1945	2	28%	74%
1946	2	0	2	70%	1937	2	30%	74%
1947	1	0	1	46%	1936	2	31%	74%
1948	1	0	1	52%	1922	2	32%	73%
1949	1	0	1	42%	1996	2	33%	73%
1950	1	0	1	56%	1970	2	35%	72%
1951	2	0	2	79%	2000	2	36%	72%
1952	2	0	2	83%	1975	2	37%	71%
1953	1	0	1	52%	1946	2	38%	70%
1954	1	0	1	63%	1965	2	40%	69%
1955	1	0	1	45%	1963	2	41%	68%
1956	2	0	2	89%	1999	2	42%	67%
1957	1	0	1	51%	1966	2	43%	66%
1958	2	0	2	100%	1940	2	44%	66%
1959	1	0	1	47%	1971	2	46%	66%
1960	1	0	1	33%	1935	2	47%	65%
1961	1	0	1	27%	1927	1	48%	65%
1962	1	0	1	59%	1954	1	49%	63%
1963	2	0	2	68%	1964	1	51%	62%
1964	1	0	1	62%	1993	1	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	69%	1923	1	53%	62%
1966	2	0	2	66%	1962	1	54%	59%
1967	2	0	2	88%	1989	1	56%	58%
1968	1	0	1	54%	1950	1	57%	56%
1969	2	0	2	100%	1968	1	58%	54%
1970	2	0	2	72%	1985	1	59%	54%
1971	2	0	2	66%	1972	1	60%	52%
1972	1	0	1	52%	1948	1	62%	52%
1973	2	0	2	78%	1953	1	63%	52%
1974	2	0	2	75%	1957	1	64%	51%
1975	2	0	2	71%	2003	1	65%	50%
1976	1	0	1	45%	1926	1	67%	49%
1977	0	0	0	8%	1930	1	68%	47%
1978	2	0	2	86%	1925	1	69%	47%
1979	2	0	2	75%	1932	1	70%	47%
1980	2	0	2	100%	1959	1	72%	47%
1981	1	0	1	43%	1947	1	73%	46%
1982	2	0	2	100%	1976	1	74%	45%
1983	2	0	2	100%	1955	1	75%	45%
1984	2	0	2	86%	2002	1	77%	43%
1985	1	0	1	54%	1981	1	78%	43%
1986	2	0	2	84%	1949	1	79%	42%
1987	1	0	1	22%	1944	1	80%	40%
1988	0	0	0	15%	1994	1	81%	36%
1989	1	0	1	58%	1933	1	83%	36%
1990	0	0	0	15%	1960	1	84%	33%
1991	0	0	0	16%	1934	1	85%	29%
1992	1	0	1	24%	2001	1	86%	28%
1993	1	0	1	62%	1961	1	88%	27%
1994	1	0	1	36%	1939	1	89%	25%
1995	2	0	2	85%	1992	1	90%	24%
1996	2	0	2	73%	1987	1	91%	22%
1997	2	0	2	85%	1931	0	93%	20%
1998	2	0	2	94%	1929	0	94%	18%
1999	2	0	2	67%	1924	0	95%	18%
2000	2	0	2	72%	1991	0	96%	16%
2001	1	0	1	28%	1988	0	98%	15%
2002	1	0	1	43%	1990	0	99%	15%
2003	1	0	1	50%	1977	0	100%	8%
Average	1	0	1	60%		1		60%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	8%		0		8%

Table C.18. Metropolitan WDSC: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1,244	0	1,244	65%	1983	1,845	0%	97%
1923	1,142	145	1,288	67%	1938	1,815	1%	95%
1924	344	40	385	20%	1980	1,751	2%	92%
1925	905	0	905	47%	1952	1,746	4%	91%
1926	934	0	934	49%	1998	1,732	5%	91%
1927	1,159	0	1,159	61%	1969	1,657	6%	87%
1928	1,308	83	1,391	73%	1982	1,647	7%	86%
1929	350	153	503	26%	1997	1,598	9%	84%
1930	906	0	906	47%	1941	1,579	10%	83%
1931	389	0	389	20%	1984	1,567	11%	82%
1932	900	0	900	47%	1967	1,540	12%	81%
1933	684	0	684	36%	1956	1,520	14%	80%
1934	547	0	547	29%	1995	1,507	15%	79%
1935	1,171	0	1,171	61%	1958	1,488	16%	78%
1936	1,261	75	1,336	70%	1978	1,474	17%	77%
1937	1,267	146	1,413	74%	1979	1,452	19%	76%
1938	1,668	146	1,815	95%	1943	1,450	20%	76%
1939	800	199	999	52%	1974	1,439	21%	75%
1940	1,166	0	1,166	61%	1970	1,432	22%	75%
1941	1,480	99	1,579	83%	1937	1,413	23%	74%
1942	1,275	32	1,306	68%	1996	1,406	25%	74%
1943	1,303	147	1,450	76%	1986	1,403	26%	73%
1944	771	152	923	48%	1928	1,391	27%	73%
1945	1,270	0	1,270	66%	1975	1,364	28%	71%
1946	1,194	147	1,340	70%	1985	1,358	30%	71%
1947	1,026	138	1,163	61%	1951	1,357	31%	71%
1948	988	0	988	52%	1999	1,354	32%	71%
1949	806	0	806	42%	1946	1,340	33%	70%
1950	1,061	0	1,061	56%	1973	1,336	35%	70%
1951	1,357	0	1,357	71%	1936	1,336	36%	70%
1952	1,589	157	1,746	91%	2000	1,332	37%	70%
1953	988	194	1,181	62%	1942	1,306	38%	68%
1954	1,149	0	1,149	60%	1966	1,306	40%	68%
1955	856	59	915	48%	1971	1,306	41%	68%
1956	1,520	0	1,520	80%	1923	1,288	42%	67%
1957	982	178	1,159	61%	1945	1,270	43%	66%
1958	1,488	0	1,488	78%	1964	1,260	44%	66%
1959	894	200	1,094	57%	1922	1,244	46%	65%
1960	945	0	945	49%	1965	1,220	47%	64%
1961	725	0	725	38%	1953	1,181	48%	62%
1962	1,122	0	1,122	59%	1963	1,180	49%	62%
1963	1,174	6	1,180	62%	1935	1,171	51%	61%
1964	1,128	132	1,260	66%	1940	1,166	52%	61%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1,188	33	1,220	64%	1947	1,163	53%	61%
1966	1,169	137	1,306	68%	1927	1,159	54%	61%
1967	1,440	99	1,540	81%	1957	1,159	56%	61%
1968	1,040	92	1,132	59%	2003	1,154	57%	60%
1969	1,657	0	1,657	87%	1954	1,149	58%	60%
1970	1,234	199	1,432	75%	1989	1,147	59%	60%
1971	1,161	144	1,306	68%	1993	1,141	60%	60%
1972	991	92	1,084	57%	1968	1,132	62%	59%
1973	1,336	0	1,336	70%	1962	1,122	63%	59%
1974	1,284	155	1,439	75%	1959	1,094	64%	57%
1975	1,214	150	1,364	71%	1972	1,084	65%	57%
1976	860	142	1,002	52%	1950	1,061	67%	56%
1977	153	0	153	8%	1994	1,036	68%	54%
1978	1,474	0	1,474	77%	2002	1,032	69%	54%
1979	1,281	171	1,452	76%	1981	1,019	70%	53%
1980	1,603	148	1,751	92%	1976	1,002	72%	52%
1981	819	200	1,019	53%	1939	999	73%	52%
1982	1,647	0	1,647	86%	1948	988	74%	52%
1983	1,680	165	1,845	97%	1960	945	75%	49%
1984	1,477	90	1,567	82%	1926	934	77%	49%
1985	1,185	173	1,358	71%	1944	923	78%	48%
1986	1,296	107	1,403	73%	1955	915	79%	48%
1987	416	143	559	29%	1930	906	80%	47%
1988	294	0	294	15%	1925	905	81%	47%
1989	1,147	0	1,147	60%	1932	900	83%	47%
1990	474	31	505	26%	1949	806	84%	42%
1991	307	0	307	16%	1961	725	85%	38%
1992	451	0	451	24%	1933	684	86%	36%
1993	1,141	0	1,141	60%	2001	683	88%	36%
1994	993	42	1,036	54%	1987	559	89%	29%
1995	1,507	0	1,507	79%	1934	547	90%	29%
1996	1,244	162	1,406	74%	1990	505	91%	26%
1997	1,455	144	1,598	84%	1929	503	93%	26%
1998	1,563	168	1,732	91%	1992	451	94%	24%
1999	1,166	188	1,354	71%	1931	389	95%	20%
2000	1,226	106	1,332	70%	1924	385	96%	20%
2001	539	143	683	36%	1991	307	98%	16%
2002	1,032	0	1,032	54%	1988	294	99%	15%
2003	1,087	67	1,154	60%	1977	153	100%	8%
Average	1,079	75	1,153	60%		1,153		60%
Maximum	1,680	200	1,845	97%		1,845		97%
Minimum	153	0	153	8%		153		8%

Table C.19. Mojave WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	60	0	60	73%	1938	83	0%	100%
1923	51	0	51	62%	1958	83	1%	100%
1924	15	0	15	18%	1958	83	2%	100%
1925	39	0	39	47%	1958	83	4%	100%
1926	40	0	40	49%	1982	83	5%	100%
1927	54	0	54	65%	1980	83	6%	100%
1928	63	0	63	76%	1952	80	7%	97%
1929	15	0	15	18%	1998	78	9%	94%
1930	39	0	39	47%	1943	77	10%	92%
1931	17	0	17	20%	1995	76	11%	91%
1932	39	0	39	47%	1956	74	12%	89%
1933	30	0	30	36%	1967	73	14%	88%
1934	24	0	24	29%	1941	72	15%	86%
1935	54	0	54	65%	1984	71	16%	86%
1936	61	0	61	74%	1978	71	17%	86%
1937	61	0	61	74%	1997	70	19%	85%
1938	83	0	83	100%	1986	69	20%	84%
1939	22	0	22	27%	1951	66	21%	79%
1940	55	0	55	66%	1973	65	22%	78%
1941	72	0	72	86%	1928	63	23%	76%
1942	62	0	62	74%	1974	62	25%	75%
1943	77	0	77	92%	1979	62	26%	75%
1944	33	0	33	40%	1942	62	27%	74%
1945	61	0	61	74%	1945	61	28%	74%
1946	58	0	58	70%	1937	61	30%	74%
1947	44	0	44	54%	1936	61	31%	74%
1948	43	0	43	52%	1922	60	32%	73%
1949	35	0	35	42%	1996	60	33%	73%
1950	46	0	46	56%	1970	60	35%	72%
1951	66	0	66	79%	2000	59	36%	72%
1952	80	0	80	97%	1975	59	37%	71%
1953	43	0	43	52%	1946	58	38%	70%
1954	52	0	52	63%	1965	57	40%	69%
1955	37	0	37	45%	1985	57	41%	69%
1956	74	0	74	89%	1963	57	42%	68%
1957	43	0	43	51%	1999	55	43%	67%
1958	83	0	83	100%	1966	55	44%	66%
1959	39	0	39	47%	1940	55	46%	66%
1960	41	0	41	50%	1971	54	47%	66%
1961	33	0	33	40%	1935	54	48%	65%
1962	49	0	49	59%	1927	54	49%	65%
1963	57	0	57	68%	2002	53	51%	65%
1964	51	0	51	62%	1954	52	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	57	0	57	69%	1964	51	53%	62%
1966	55	0	55	66%	1993	51	54%	62%
1967	73	0	73	88%	1923	51	56%	62%
1968	45	0	45	54%	1989	51	57%	62%
1969	83	0	83	100%	2003	51	58%	61%
1970	60	0	60	72%	1962	49	59%	59%
1971	54	0	54	66%	1950	46	60%	56%
1972	43	0	43	52%	1968	45	62%	54%
1973	65	0	65	78%	1947	44	63%	54%
1974	62	0	62	75%	1994	43	64%	52%
1975	59	0	59	71%	1972	43	65%	52%
1976	37	0	37	45%	1948	43	67%	52%
1977	7	0	7	8%	1953	43	68%	52%
1978	71	0	71	86%	1957	43	69%	51%
1979	62	0	62	75%	1960	41	70%	50%
1980	83	0	83	100%	1926	40	72%	49%
1981	35	0	35	43%	1930	39	73%	47%
1982	83	0	83	100%	1925	39	74%	47%
1983	83	0	83	100%	1932	39	75%	47%
1984	71	0	71	86%	1959	39	77%	47%
1985	57	0	57	69%	1976	37	78%	45%
1986	69	0	69	84%	1955	37	79%	45%
1987	18	0	18	22%	1981	35	80%	43%
1988	13	0	13	15%	1949	35	81%	42%
1989	51	0	51	62%	1944	33	83%	40%
1990	22	0	22	27%	1961	33	84%	40%
1991	13	0	13	16%	1933	30	85%	36%
1992	20	0	20	24%	1934	24	86%	29%
1993	51	0	51	62%	2001	23	88%	28%
1994	43	0	43	52%	1939	22	89%	27%
1995	76	0	76	91%	1990	22	90%	27%
1996	60	0	60	73%	1992	20	91%	24%
1997	70	0	70	85%	1987	18	93%	22%
1998	78	0	78	94%	1931	17	94%	20%
1999	55	0	55	67%	1929	15	95%	18%
2000	59	0	59	72%	1924	15	96%	18%
2001	23	0	23	28%	1991	13	98%	16%
2002	53	0	53	65%	1988	13	99%	15%
2003	51	0	51	61%	1977	7	100%	8%
Average	51	0	51	61%		51		61%
Maximum	83	0	83	100%		83		100%
Minimum	7	0	7	8%		7		8%

Table C.20. Napa County FC&WCD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	100%	1963	29	0%	100%
1923	27	0	27	94%	1963	29	1%	100%
1924	10	0	10	33%	1963	29	2%	100%
1925	20	0	20	68%	1963	29	4%	100%
1926	20	0	20	68%	1922	29	5%	100%
1927	29	0	29	99%	1922	29	6%	100%
1928	29	0	29	99%	1922	29	7%	100%
1929	10	0	10	33%	1922	29	9%	100%
1930	20	0	20	68%	1922	29	10%	100%
1931	10	0	10	33%	1922	29	11%	100%
1932	10	0	10	33%	1938	29	12%	100%
1933	10	0	10	33%	1938	29	14%	100%
1934	10	0	10	33%	1938	29	15%	100%
1935	20	0	20	68%	1938	29	16%	100%
1936	27	0	27	94%	1942	29	17%	100%
1937	20	0	20	68%	1942	29	19%	100%
1938	29	0	29	100%	1942	29	20%	100%
1939	27	0	27	94%	1942	29	21%	100%
1940	29	0	29	99%	1942	29	22%	100%
1941	29	0	29	100%	1942	29	23%	100%
1942	29	0	29	100%	1942	29	25%	100%
1943	29	0	29	100%	1942	29	26%	100%
1944	20	0	20	68%	1942	29	27%	100%
1945	27	0	27	94%	1942	29	28%	100%
1946	29	0	29	99%	1942	29	30%	100%
1947	20	0	20	68%	1942	29	31%	100%
1948	27	0	27	94%	2003	29	32%	99%
1949	20	0	20	68%	1928	29	33%	99%
1950	20	0	20	68%	1928	29	35%	99%
1951	29	0	29	99%	1928	29	36%	99%
1952	29	0	29	100%	1927	29	37%	99%
1953	29	0	29	100%	1927	29	38%	99%
1954	29	0	29	99%	1927	29	40%	99%
1955	20	0	20	68%	1927	29	41%	99%
1956	29	0	29	100%	1927	29	42%	99%
1957	29	0	29	99%	1927	29	43%	99%
1958	29	0	29	100%	1954	29	44%	99%
1959	27	0	27	94%	1954	29	46%	99%
1960	20	0	20	68%	1954	29	47%	99%
1961	20	0	20	68%	1923	27	48%	94%
1962	27	0	27	94%	1923	27	49%	94%
1963	29	0	29	100%	1923	27	51%	94%
1964	20	0	20	68%	1923	27	52%	94%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	100%	1923	27	53%	94%
1966	27	0	27	94%	1923	27	54%	94%
1967	29	0	29	100%	1923	27	56%	94%
1968	27	0	27	94%	1936	27	57%	94%
1969	29	0	29	100%	1936	27	58%	94%
1970	29	0	29	100%	1936	27	59%	94%
1971	29	0	29	100%	1936	27	60%	94%
1972	27	0	27	94%	1925	20	62%	68%
1973	29	0	29	99%	1925	20	63%	68%
1974	29	0	29	100%	1925	20	64%	68%
1975	29	0	29	100%	1925	20	65%	68%
1976	20	0	20	68%	1925	20	67%	68%
1977	10	0	10	33%	1925	20	68%	68%
1978	29	0	29	99%	1925	20	69%	68%
1979	20	0	20	68%	1925	20	70%	68%
1980	29	0	29	99%	1925	20	72%	68%
1981	20	0	20	68%	1926	20	73%	68%
1982	29	0	29	100%	1926	20	74%	68%
1983	29	0	29	100%	1926	20	75%	68%
1984	29	0	29	100%	1926	20	77%	68%
1985	27	0	27	94%	1937	20	78%	68%
1986	29	0	29	100%	1937	20	79%	68%
1987	20	0	20	68%	1937	20	80%	68%
1988	10	0	10	33%	1937	20	81%	68%
1989	20	0	20	68%	1937	20	83%	68%
1990	10	0	10	33%	1937	20	84%	68%
1991	10	0	10	33%	1937	20	85%	68%
1992	10	0	10	33%	1924	10	86%	33%
1993	29	0	29	99%	1924	10	88%	33%
1994	10	0	10	33%	1924	10	89%	33%
1995	29	0	29	100%	1924	10	90%	33%
1996	29	0	29	100%	1924	10	91%	33%
1997	29	0	29	100%	1924	10	93%	33%
1998	29	0	29	100%	1924	10	94%	33%
1999	29	0	29	100%	1924	10	95%	33%
2000	29	0	29	99%	1931	10	96%	33%
2001	20	0	20	68%	1931	10	98%	33%
2002	20	0	20	68%	1931	10	99%	33%
2003	29	0	29	99%	1931	10	100%	33%
Average	24	0	24	81%		24		81%
Maximum	29	0	29	100%		29		100%
Minimum	10	0	10	33%		10		33%

Table C.21. Oak Flat WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	73%	1938	6	0%	100%
1923	4	0	4	62%	1983	6	1%	100%
1924	1	0	1	18%	1958	6	2%	100%
1925	3	0	3	47%	1958	6	4%	100%
1926	3	0	3	45%	1982	6	5%	100%
1927	4	0	4	65%	1980	6	6%	100%
1928	4	0	4	76%	1952	6	7%	97%
1929	1	0	1	15%	1998	5	9%	94%
1930	3	0	3	47%	1943	5	10%	92%
1931	1	0	1	20%	1995	5	11%	90%
1932	3	0	3	47%	1956	5	12%	89%
1933	2	0	2	30%	1967	5	14%	88%
1934	1	0	1	24%	1941	5	15%	86%
1935	4	0	4	65%	1984	5	16%	86%
1936	4	0	4	74%	1978	5	17%	86%
1937	4	0	4	74%	1997	5	19%	85%
1938	6	0	6	100%	1986	5	20%	83%
1939	2	0	2	29%	1951	5	21%	79%
1940	4	0	4	66%	1973	4	22%	78%
1941	5	0	5	86%	1928	4	23%	76%
1942	4	0	4	74%	1974	4	25%	75%
1943	5	0	5	92%	1979	4	26%	75%
1944	2	0	2	34%	1942	4	27%	74%
1945	4	0	4	74%	1945	4	28%	74%
1946	4	0	4	70%	1937	4	30%	74%
1947	3	0	3	44%	1936	4	31%	74%
1948	3	0	3	52%	1922	4	32%	73%
1949	2	0	2	42%	1996	4	33%	73%
1950	3	0	3	56%	1970	4	35%	72%
1951	5	0	5	79%	2000	4	36%	72%
1952	6	0	6	97%	1975	4	37%	71%
1953	3	0	3	52%	1946	4	38%	70%
1954	4	0	4	63%	1965	4	40%	69%
1955	3	0	3	45%	1963	4	41%	68%
1956	5	0	5	89%	1999	4	42%	67%
1957	3	0	3	51%	1966	4	43%	66%
1958	6	0	6	100%	1940	4	44%	66%
1959	3	0	3	47%	1971	4	46%	66%
1960	2	0	2	41%	1935	4	47%	65%
1961	2	0	2	33%	1927	4	48%	65%
1962	3	0	3	59%	1954	4	49%	63%
1963	4	0	4	68%	1985	4	51%	63%
1964	4	0	4	62%	1964	4	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	4	0	4	69%	1993	4	53%	62%
1966	4	0	4	66%	1923	4	54%	62%
1967	5	0	5	88%	1989	4	56%	62%
1968	3	0	3	54%	1962	3	57%	59%
1969	6	0	6	100%	2003	3	58%	58%
1970	4	0	4	72%	1950	3	59%	56%
1971	4	0	4	66%	1968	3	60%	54%
1972	3	0	3	52%	2002	3	62%	53%
1973	4	0	4	78%	1972	3	63%	52%
1974	4	0	4	75%	1948	3	64%	52%
1975	4	0	4	71%	1953	3	65%	52%
1976	3	0	3	45%	1957	3	67%	51%
1977	0	0	0	8%	1930	3	68%	47%
1978	5	0	5	86%	1925	3	69%	47%
1979	4	0	4	75%	1932	3	70%	47%
1980	6	0	6	100%	1959	3	72%	47%
1981	2	0	2	28%	1926	3	73%	45%
1982	6	0	6	100%	1976	3	74%	45%
1983	6	0	6	100%	1955	3	75%	45%
1984	5	0	5	86%	1947	3	77%	44%
1985	4	0	4	63%	1994	2	78%	43%
1986	5	0	5	83%	1949	2	79%	42%
1987	1	0	1	20%	1960	2	80%	41%
1988	1	0	1	10%	1944	2	81%	34%
1989	4	0	4	62%	1961	2	83%	33%
1990	1	0	1	18%	1933	2	84%	30%
1991	1	0	1	16%	1939	2	85%	29%
1992	1	0	1	16%	2001	2	86%	28%
1993	4	0	4	62%	1981	2	88%	28%
1994	2	0	2	43%	1934	1	89%	24%
1995	5	0	5	90%	1931	1	90%	20%
1996	4	0	4	73%	1987	1	91%	20%
1997	5	0	5	85%	1990	1	93%	18%
1998	5	0	5	94%	1924	1	94%	18%
1999	4	0	4	67%	1992	1	95%	16%
2000	4	0	4	72%	1991	1	96%	16%
2001	2	0	2	28%	1929	1	98%	15%
2002	3	0	3	53%	1988	1	99%	10%
2003	3	0	3	58%	1977	0	100%	8%
Average	3	0	3	60%		3		60%
Maximum	6	0	6	100%		6		100%
Minimum	0	0	0	8%		0		8%

Table C.22. Palmdale WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	15	0	15	73%	1958	21	0%	100%
1923	13	0	13	62%	1938	21	1%	100%
1924	4	0	4	18%	1938	21	2%	100%
1925	10	0	10	47%	1938	21	4%	100%
1926	10	0	10	49%	1969	21	5%	100%
1927	14	0	14	65%	1980	21	6%	100%
1928	16	0	16	76%	1998	20	7%	94%
1929	4	0	4	18%	1943	20	9%	92%
1930	10	0	10	47%	1956	19	10%	89%
1931	4	0	4	20%	1967	19	11%	88%
1932	10	0	10	47%	1941	18	12%	86%
1933	8	0	8	36%	1984	18	14%	86%
1934	6	0	6	29%	1978	18	15%	86%
1935	14	0	14	65%	1995	18	16%	86%
1936	16	0	16	74%	1997	18	17%	85%
1937	16	0	16	74%	1986	18	19%	84%
1938	21	0	21	100%	1952	18	20%	83%
1939	5	0	5	21%	1951	17	21%	79%
1940	14	0	14	66%	1973	17	22%	78%
1941	18	0	18	86%	1928	16	23%	76%
1942	16	0	16	74%	1974	16	25%	75%
1943	20	0	20	92%	1979	16	26%	75%
1944	9	0	9	40%	1942	16	27%	74%
1945	16	0	16	74%	1945	16	28%	74%
1946	15	0	15	70%	1937	16	30%	74%
1947	9	0	9	44%	1936	16	31%	74%
1948	11	0	11	52%	1922	15	32%	73%
1949	9	0	9	42%	1996	15	33%	73%
1950	12	0	12	56%	1970	15	35%	72%
1951	17	0	17	79%	2000	15	36%	72%
1952	18	0	18	83%	1975	15	37%	71%
1953	11	0	11	52%	1946	15	38%	70%
1954	13	0	13	63%	1965	15	40%	69%
1955	10	0	10	45%	1963	15	41%	68%
1956	19	0	19	89%	1999	14	42%	67%
1957	11	0	11	51%	1966	14	43%	66%
1958	21	0	21	100%	1940	14	44%	66%
1959	10	0	10	47%	1971	14	46%	66%
1960	7	0	7	32%	1935	14	47%	65%
1961	5	0	5	23%	1927	14	48%	65%
1962	13	0	13	59%	1954	13	49%	63%
1963	15	0	15	68%	1964	13	51%	62%
1964	13	0	13	62%	1993	13	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	15	0	15	69%	1923	13	53%	62%
1966	14	0	14	66%	1962	13	54%	59%
1967	19	0	19	88%	1989	12	56%	57%
1968	12	0	12	54%	1950	12	57%	56%
1969	21	0	21	100%	1968	12	58%	54%
1970	15	0	15	72%	1985	11	59%	54%
1971	14	0	14	66%	1972	11	60%	52%
1972	11	0	11	52%	1948	11	62%	52%
1973	17	0	17	78%	1953	11	63%	52%
1974	16	0	16	75%	1957	11	64%	51%
1975	15	0	15	71%	2003	11	65%	50%
1976	10	0	10	45%	1926	10	67%	49%
1977	2	0	2	8%	1930	10	68%	47%
1978	18	0	18	86%	1925	10	69%	47%
1979	16	0	16	75%	1932	10	70%	47%
1980	21	0	21	100%	1959	10	72%	47%
1981	9	0	9	43%	1976	10	73%	45%
1982	21	0	21	100%	1955	10	74%	45%
1983	21	0	21	100%	1947	9	75%	44%
1984	18	0	18	86%	1981	9	77%	43%
1985	11	0	11	54%	2002	9	78%	43%
1986	18	0	18	84%	1949	9	79%	42%
1987	5	0	5	22%	1944	9	80%	40%
1988	3	0	3	15%	1933	8	81%	36%
1989	12	0	12	57%	1994	7	83%	34%
1990	2	0	2	11%	1960	7	84%	32%
1991	3	0	3	16%	1934	6	85%	29%
1992	5	0	5	24%	2001	6	86%	28%
1993	13	0	13	62%	1992	5	88%	24%
1994	7	0	7	34%	1961	5	89%	23%
1995	18	0	18	86%	1987	5	90%	22%
1996	15	0	15	73%	1939	5	91%	21%
1997	18	0	18	85%	1931	4	93%	20%
1998	20	0	20	94%	1929	4	94%	18%
1999	14	0	14	67%	1924	4	95%	18%
2000	15	0	15	72%	1991	3	96%	16%
2001	6	0	6	28%	1988	3	98%	15%
2002	9	0	9	43%	1990	2	99%	11%
2003	11	0	11	50%	1977	2	100%	8%
Average	13	0	13	60%		13		60%
Maximum	21	0	21	100%		21		100%
Minimum	2	0	2	8%		2		8%

Table C.23. San Bernardino Valley MWD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	66	0	66	65%	1938	99	0%	97%
1923	61	8	69	68%	1980	99	1%	97%
1924	18	2	21	20%	1983	99	2%	97%
1925	49	0	49	47%	1952	97	4%	95%
1926	50	0	50	49%	1998	95	5%	93%
1927	62	0	62	60%	1943	93	6%	90%
1928	70	5	74	73%	1982	91	7%	89%
1929	19	9	28	27%	1958	91	9%	89%
1930	49	0	49	47%	1958	91	10%	89%
1931	21	0	21	20%	1997	86	11%	83%
1932	48	0	48	47%	1967	86	12%	83%
1933	37	0	37	36%	1941	84	14%	82%
1934	29	0	29	29%	1995	83	15%	81%
1935	63	0	63	61%	1986	82	16%	80%
1936	67	4	71	70%	1956	81	17%	79%
1937	68	8	76	74%	1984	79	19%	77%
1938	91	8	99	97%	1978	79	20%	77%
1939	45	11	57	55%	1979	78	21%	76%
1940	62	0	62	61%	1974	77	22%	75%
1941	79	5	84	82%	1970	77	23%	75%
1942	68	2	70	68%	2003	76	25%	74%
1943	84	8	93	90%	1937	76	26%	74%
1944	41	8	50	48%	1996	75	27%	73%
1945	68	0	68	66%	1928	74	28%	73%
1946	64	8	72	70%	1975	73	30%	71%
1947	55	8	63	61%	1985	73	31%	71%
1948	53	0	53	52%	1999	73	32%	71%
1949	43	0	43	42%	1951	72	33%	70%
1950	57	0	57	56%	1946	72	35%	70%
1951	72	0	72	70%	1936	71	36%	70%
1952	88	9	97	95%	2000	71	37%	70%
1953	53	11	64	62%	1973	71	38%	69%
1954	61	0	61	60%	1971	70	40%	68%
1955	46	3	49	48%	1966	70	41%	68%
1956	81	0	81	79%	1942	70	42%	68%
1957	53	10	63	61%	1923	69	43%	68%
1958	91	0	91	89%	1964	69	44%	67%
1959	48	11	59	58%	1945	68	46%	66%
1960	51	0	51	50%	1922	66	47%	65%
1961	41	0	41	40%	1965	65	48%	63%
1962	60	0	60	59%	1953	64	49%	62%
1963	63	0	63	61%	1963	63	51%	61%
1964	62	7	69	67%	1947	63	52%	61%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	63	2	65	63%	1957	63	53%	61%
1966	62	8	70	68%	1935	63	54%	61%
1967	80	5	86	83%	2002	62	56%	61%
1968	56	5	61	59%	1940	62	57%	61%
1969	91	0	91	89%	1927	62	58%	60%
1970	66	11	77	75%	1989	62	59%	60%
1971	62	8	70	68%	1954	61	60%	60%
1972	53	5	58	57%	1993	61	62%	60%
1973	71	0	71	69%	1968	61	63%	59%
1974	68	9	77	75%	1962	60	64%	59%
1975	65	9	73	71%	1959	59	65%	58%
1976	46	8	54	53%	1972	58	67%	57%
1977	8	0	8	8%	1950	57	68%	56%
1978	79	0	79	77%	1939	57	69%	55%
1979	68	10	78	76%	1994	56	70%	55%
1980	91	8	99	97%	1981	55	72%	54%
1981	44	11	55	54%	1976	54	73%	53%
1982	91	0	91	89%	1948	53	74%	52%
1983	91	8	99	97%	1960	51	75%	50%
1984	79	0	79	77%	1926	50	77%	49%
1985	63	10	73	71%	1944	50	78%	48%
1986	77	6	82	80%	1955	49	79%	48%
1987	22	8	30	29%	1930	49	80%	47%
1988	16	0	16	15%	1925	49	81%	47%
1989	62	0	62	60%	1932	48	83%	47%
1990	27	2	29	28%	1949	43	84%	42%
1991	16	0	16	16%	1961	41	85%	40%
1992	25	0	25	24%	2001	37	86%	36%
1993	61	0	61	60%	1933	37	88%	36%
1994	54	2	56	55%	1987	30	89%	29%
1995	83	0	83	81%	1934	29	90%	29%
1996	66	9	75	73%	1990	29	91%	28%
1997	78	8	86	83%	1929	28	93%	27%
1998	86	10	95	93%	1992	25	94%	24%
1999	62	11	73	71%	1931	21	95%	20%
2000	65	6	71	70%	1924	21	96%	20%
2001	29	8	37	36%	1991	16	98%	16%
2002	62	0	62	61%	1988	16	99%	15%
2003	72	4	76	74%	1977	8	100%	8%
Average	59	4	63	61%		63		61%
Maximum	91	11	99	97%		99		97%
Minimum	8	0	8	8%		8		8%

Table C.24. San Gabriel Valley MWD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	21	0	21	73%	1982	29	0%	100%
1923	18	0	18	62%	1982	29	1%	100%
1924	5	0	5	18%	1938	29	2%	100%
1925	14	0	14	47%	1938	29	4%	100%
1926	14	0	14	49%	1938	29	5%	100%
1927	19	0	19	65%	1980	29	6%	100%
1928	22	0	22	76%	1952	28	7%	97%
1929	5	0	5	18%	1998	27	9%	94%
1930	14	0	14	47%	1943	27	10%	92%
1931	6	0	6	20%	1995	26	11%	91%
1932	14	0	14	47%	1956	26	12%	89%
1933	10	0	10	36%	1967	25	14%	88%
1934	8	0	8	29%	1941	25	15%	86%
1935	19	0	19	65%	1984	25	16%	86%
1936	21	0	21	74%	1978	25	17%	86%
1937	21	0	21	74%	1997	24	19%	85%
1938	29	0	29	100%	1986	24	20%	84%
1939	5	0	5	19%	1951	23	21%	79%
1940	19	0	19	66%	1973	22	22%	78%
1941	25	0	25	86%	1928	22	23%	76%
1942	21	0	21	74%	1974	22	25%	75%
1943	27	0	27	92%	1979	22	26%	75%
1944	12	0	12	40%	1942	21	27%	74%
1945	21	0	21	74%	1945	21	28%	74%
1946	20	0	20	70%	1937	21	30%	74%
1947	15	0	15	54%	1936	21	31%	74%
1948	15	0	15	52%	1922	21	32%	73%
1949	12	0	12	42%	1996	21	33%	73%
1950	16	0	16	56%	1970	21	35%	72%
1951	23	0	23	79%	2000	21	36%	72%
1952	28	0	28	97%	1975	20	37%	71%
1953	15	0	15	52%	1946	20	38%	70%
1954	18	0	18	63%	1965	20	40%	69%
1955	13	0	13	45%	1985	20	41%	69%
1956	26	0	26	89%	1963	20	42%	68%
1957	15	0	15	51%	1999	19	43%	67%
1958	29	0	29	100%	1966	19	44%	66%
1959	13	0	13	47%	1940	19	46%	66%
1960	14	0	14	50%	1971	19	47%	66%
1961	11	0	11	40%	1935	19	48%	65%
1962	17	0	17	59%	1927	19	49%	65%
1963	20	0	20	68%	2002	19	51%	65%
1964	18	0	18	62%	1954	18	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	20	0	20	69%	1964	18	53%	62%
1966	19	0	19	66%	1993	18	54%	62%
1967	25	0	25	88%	1923	18	56%	62%
1968	16	0	16	54%	2003	18	57%	62%
1969	29	0	29	100%	1989	18	58%	62%
1970	21	0	21	72%	1962	17	59%	59%
1971	19	0	19	66%	1950	16	60%	56%
1972	15	0	15	52%	1968	16	62%	54%
1973	22	0	22	78%	1947	15	63%	54%
1974	22	0	22	75%	1994	15	64%	52%
1975	20	0	20	71%	1972	15	65%	52%
1976	13	0	13	45%	1948	15	67%	52%
1977	2	0	2	8%	1953	15	68%	52%
1978	25	0	25	86%	1957	15	69%	51%
1979	22	0	22	75%	1960	14	70%	50%
1980	29	0	29	100%	1926	14	72%	49%
1981	12	0	12	43%	1930	14	73%	47%
1982	29	0	29	100%	1925	14	74%	47%
1983	29	0	29	100%	1932	14	75%	47%
1984	25	0	25	86%	1959	13	77%	47%
1985	20	0	20	69%	1976	13	78%	45%
1986	24	0	24	84%	1955	13	79%	45%
1987	6	0	6	22%	1981	12	80%	43%
1988	4	0	4	15%	1949	12	81%	42%
1989	18	0	18	62%	1944	12	83%	40%
1990	8	0	8	27%	1961	11	84%	40%
1991	5	0	5	16%	1933	10	85%	36%
1992	7	0	7	24%	1934	8	86%	29%
1993	18	0	18	62%	2001	8	88%	28%
1994	15	0	15	52%	1990	8	89%	27%
1995	26	0	26	91%	1992	7	90%	24%
1996	21	0	21	73%	1987	6	91%	22%
1997	24	0	24	85%	1931	6	93%	20%
1998	27	0	27	94%	1939	5	94%	19%
1999	19	0	19	67%	1929	5	95%	18%
2000	21	0	21	72%	1924	5	96%	18%
2001	8	0	8	28%	1991	5	98%	16%
2002	19	0	19	65%	1988	4	99%	15%
2003	18	0	18	62%	1977	2	100%	8%
Average	18	0	18	61%		18		61%
Maximum	29	0	29	100%		29		100%
Minimum	2	0	2	8%		2		8%

Table C.25. San Geronio Pass WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	13	0	13	73%	1982	17	0%	100%
1923	11	0	11	62%	1982	17	1%	100%
1924	3	0	3	18%	1938	17	2%	100%
1925	8	0	8	47%	1938	17	4%	100%
1926	8	0	8	49%	1938	17	5%	100%
1927	11	0	11	65%	1980	17	6%	100%
1928	13	0	13	76%	1952	17	7%	97%
1929	3	0	3	18%	1998	16	9%	94%
1930	8	0	8	47%	1943	16	10%	92%
1931	4	0	4	20%	1995	16	11%	91%
1932	8	0	8	47%	1956	15	12%	89%
1933	6	0	6	36%	1967	15	14%	88%
1934	5	0	5	29%	1941	15	15%	86%
1935	11	0	11	65%	1984	15	16%	86%
1936	13	0	13	74%	1978	15	17%	86%
1937	13	0	13	74%	1997	15	19%	85%
1938	17	0	17	100%	1986	15	20%	84%
1939	4	0	4	22%	1951	14	21%	79%
1940	11	0	11	66%	1973	14	22%	78%
1941	15	0	15	86%	1928	13	23%	76%
1942	13	0	13	74%	1974	13	25%	75%
1943	16	0	16	92%	1979	13	26%	75%
1944	7	0	7	40%	1942	13	27%	74%
1945	13	0	13	74%	1945	13	28%	74%
1946	12	0	12	70%	1937	13	30%	74%
1947	9	0	9	54%	1936	13	31%	74%
1948	9	0	9	52%	1922	13	32%	73%
1949	7	0	7	42%	1996	13	33%	73%
1950	10	0	10	56%	1970	12	35%	72%
1951	14	0	14	79%	2000	12	36%	72%
1952	17	0	17	97%	1975	12	37%	71%
1953	9	0	9	52%	1946	12	38%	70%
1954	11	0	11	63%	1965	12	40%	69%
1955	8	0	8	45%	1985	12	41%	69%
1956	15	0	15	89%	2003	12	42%	69%
1957	9	0	9	51%	1963	12	43%	68%
1958	17	0	17	100%	1999	12	44%	67%
1959	8	0	8	47%	1966	11	46%	66%
1960	9	0	9	50%	1940	11	47%	66%
1961	7	0	7	40%	1971	11	48%	66%
1962	10	0	10	59%	1935	11	49%	65%
1963	12	0	12	68%	1927	11	51%	65%
1964	11	0	11	62%	2002	11	52%	65%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	12	0	12	69%	1954	11	53%	63%
1966	11	0	11	66%	1964	11	54%	62%
1967	15	0	15	88%	1993	11	56%	62%
1968	9	0	9	54%	1923	11	57%	62%
1969	17	0	17	100%	1989	11	58%	62%
1970	12	0	12	72%	1962	10	59%	59%
1971	11	0	11	66%	1950	10	60%	56%
1972	9	0	9	52%	1968	9	62%	54%
1973	14	0	14	78%	1947	9	63%	54%
1974	13	0	13	75%	1994	9	64%	52%
1975	12	0	12	71%	1972	9	65%	52%
1976	8	0	8	45%	1948	9	67%	52%
1977	1	0	1	8%	1953	9	68%	52%
1978	15	0	15	86%	1957	9	69%	51%
1979	13	0	13	75%	1960	9	70%	50%
1980	17	0	17	100%	1926	8	72%	49%
1981	7	0	7	43%	1930	8	73%	47%
1982	17	0	17	100%	1925	8	74%	47%
1983	17	0	17	100%	1932	8	75%	47%
1984	15	0	15	86%	1959	8	77%	47%
1985	12	0	12	69%	1976	8	78%	45%
1986	15	0	15	84%	1955	8	79%	45%
1987	4	0	4	22%	1981	7	80%	43%
1988	3	0	3	15%	1949	7	81%	42%
1989	11	0	11	62%	1944	7	83%	40%
1990	5	0	5	27%	1961	7	84%	40%
1991	3	0	3	16%	1933	6	85%	36%
1992	4	0	4	24%	1934	5	86%	29%
1993	11	0	11	62%	2001	5	88%	28%
1994	9	0	9	52%	1990	5	89%	27%
1995	16	0	16	91%	1992	4	90%	24%
1996	13	0	13	73%	1987	4	91%	22%
1997	15	0	15	85%	1939	4	93%	22%
1998	16	0	16	94%	1931	4	94%	20%
1999	12	0	12	67%	1929	3	95%	18%
2000	12	0	12	72%	1924	3	96%	18%
2001	5	0	5	28%	1991	3	98%	16%
2002	11	0	11	65%	1988	3	99%	15%
2003	12	0	12	69%	1977	1	100%	8%
Average	11	0	11	61%		11		61%
Maximum	17	0	17	100%		17		100%
Minimum	1	0	1	8%		1		8%

Table C.26. San Luis Obispo County FC&WCD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	18	0	18	73%	1938	25	0%	100%
1923	15	0	15	62%	1938	25	1%	100%
1924	5	0	5	18%	1938	25	2%	100%
1925	12	0	12	47%	1958	25	4%	100%
1926	12	0	12	49%	1958	25	5%	100%
1927	16	0	16	65%	1980	25	6%	100%
1928	19	0	19	76%	1952	24	7%	97%
1929	5	0	5	18%	1998	23	9%	94%
1930	12	0	12	47%	1943	23	10%	92%
1931	5	0	5	20%	1956	22	11%	89%
1932	12	0	12	47%	1967	22	12%	88%
1933	9	0	9	36%	1941	22	14%	86%
1934	7	0	7	29%	1984	22	15%	86%
1935	16	0	16	65%	1978	22	16%	86%
1936	18	0	18	74%	1997	21	17%	85%
1937	19	0	19	74%	1986	21	19%	84%
1938	25	0	25	100%	1995	21	20%	83%
1939	11	0	11	44%	1951	20	21%	79%
1940	17	0	17	66%	1973	20	22%	78%
1941	22	0	22	86%	1928	19	23%	76%
1942	19	0	19	74%	1974	19	25%	75%
1943	23	0	23	92%	1979	19	26%	75%
1944	10	0	10	40%	1942	19	27%	74%
1945	19	0	19	74%	1945	19	28%	74%
1946	17	0	17	70%	1937	19	30%	74%
1947	13	0	13	50%	1936	18	31%	74%
1948	13	0	13	52%	1922	18	32%	73%
1949	11	0	11	42%	1996	18	33%	73%
1950	14	0	14	56%	1970	18	35%	72%
1951	20	0	20	79%	2000	18	36%	72%
1952	24	0	24	97%	1975	18	37%	71%
1953	13	0	13	52%	1946	17	38%	70%
1954	16	0	16	63%	1965	17	40%	69%
1955	11	0	11	45%	1985	17	41%	69%
1956	22	0	22	89%	1963	17	42%	68%
1957	13	0	13	51%	1999	17	43%	67%
1958	25	0	25	100%	1966	17	44%	66%
1959	12	0	12	47%	1940	17	46%	66%
1960	12	0	12	50%	2003	16	47%	66%
1961	10	0	10	40%	1971	16	48%	66%
1962	15	0	15	59%	1935	16	49%	65%
1963	17	0	17	68%	1927	16	51%	65%
1964	16	0	16	62%	1954	16	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	17	0	17	69%	2002	16	53%	63%
1966	17	0	17	66%	1964	16	54%	62%
1967	22	0	22	88%	1993	15	56%	62%
1968	14	0	14	54%	1923	15	57%	62%
1969	25	0	25	100%	1989	15	58%	62%
1970	18	0	18	72%	1962	15	59%	59%
1971	16	0	16	66%	1950	14	60%	56%
1972	13	0	13	52%	1968	14	62%	54%
1973	20	0	20	78%	1994	13	63%	52%
1974	19	0	19	75%	1972	13	64%	52%
1975	18	0	18	71%	1948	13	65%	52%
1976	11	0	11	45%	1953	13	67%	52%
1977	2	0	2	8%	1957	13	68%	51%
1978	22	0	22	86%	1947	13	69%	50%
1979	19	0	19	75%	1960	12	70%	50%
1980	25	0	25	100%	1926	12	72%	49%
1981	11	0	11	43%	1930	12	73%	47%
1982	25	0	25	100%	1925	12	74%	47%
1983	25	0	25	100%	1932	12	75%	47%
1984	22	0	22	86%	1959	12	77%	47%
1985	17	0	17	69%	1976	11	78%	45%
1986	21	0	21	84%	1955	11	79%	45%
1987	5	0	5	22%	1939	11	80%	44%
1988	4	0	4	15%	1981	11	81%	43%
1989	15	0	15	62%	1949	11	83%	42%
1990	7	0	7	27%	1944	10	84%	40%
1991	4	0	4	16%	1961	10	85%	40%
1992	6	0	6	24%	1933	9	86%	36%
1993	15	0	15	62%	1934	7	88%	29%
1994	13	0	13	52%	2001	7	89%	28%
1995	21	0	21	83%	1990	7	90%	27%
1996	18	0	18	73%	1992	6	91%	24%
1997	21	0	21	85%	1987	5	93%	22%
1998	23	0	23	94%	1931	5	94%	20%
1999	17	0	17	67%	1929	5	95%	18%
2000	18	0	18	72%	1924	5	96%	18%
2001	7	0	7	28%	1991	4	98%	16%
2002	16	0	16	63%	1988	4	99%	15%
2003	16	0	16	66%	1977	2	100%	8%
Average	15	0	15	62%		15		62%
Maximum	25	0	25	100%		25		100%
Minimum	2	0	2	8%		2		8%

Table C.27. Santa Barbara County FC&WCD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	33	0	33	73%	1958	45	0%	100%
1923	28	0	28	62%	1938	45	1%	100%
1924	8	0	8	18%	1938	45	2%	100%
1925	22	0	22	47%	1938	45	4%	100%
1926	22	0	22	49%	1938	45	5%	100%
1927	30	0	30	65%	1980	45	6%	100%
1928	35	0	35	76%	1952	44	7%	97%
1929	8	0	8	18%	1998	43	9%	94%
1930	22	0	22	47%	1943	42	10%	92%
1931	9	0	9	20%	1956	40	11%	89%
1932	21	0	21	47%	1967	40	12%	88%
1933	16	0	16	36%	1941	39	14%	86%
1934	13	0	13	29%	1984	39	15%	86%
1935	30	0	30	65%	1978	39	16%	86%
1936	34	0	34	74%	1997	39	17%	85%
1937	34	0	34	74%	1986	38	19%	83%
1938	45	0	45	100%	1995	38	20%	82%
1939	9	0	9	20%	1951	36	21%	79%
1940	30	0	30	66%	1973	36	22%	78%
1941	39	0	39	86%	1928	35	23%	76%
1942	34	0	34	74%	1974	34	25%	75%
1943	42	0	42	92%	1979	34	26%	75%
1944	18	0	18	40%	1942	34	27%	74%
1945	34	0	34	74%	1945	34	28%	74%
1946	32	0	32	70%	1937	34	30%	74%
1947	14	0	14	31%	1936	34	31%	74%
1948	24	0	24	52%	1922	33	32%	73%
1949	19	0	19	42%	1996	33	33%	73%
1950	25	0	25	56%	1970	33	35%	72%
1951	36	0	36	79%	2000	33	36%	72%
1952	44	0	44	97%	1975	32	37%	71%
1953	24	0	24	52%	1946	32	38%	70%
1954	29	0	29	63%	1965	32	40%	69%
1955	20	0	20	45%	1963	31	41%	68%
1956	40	0	40	89%	1999	30	42%	67%
1957	23	0	23	51%	1966	30	43%	66%
1958	45	0	45	100%	1940	30	44%	66%
1959	21	0	21	47%	1971	30	46%	66%
1960	13	0	13	29%	1935	30	47%	65%
1961	11	0	11	23%	1927	30	48%	65%
1962	27	0	27	59%	1954	29	49%	63%
1963	31	0	31	68%	1964	28	51%	62%
1964	28	0	28	62%	1993	28	52%	62%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	32	0	32	69%	1923	28	53%	62%
1966	30	0	30	66%	1962	27	54%	59%
1967	40	0	40	88%	1985	26	56%	56%
1968	25	0	25	54%	1989	26	57%	56%
1969	45	0	45	100%	1950	25	58%	56%
1970	33	0	33	72%	1968	25	59%	54%
1971	30	0	30	66%	1972	24	60%	52%
1972	24	0	24	52%	1948	24	62%	52%
1973	36	0	36	78%	1953	24	63%	52%
1974	34	0	34	75%	1957	23	64%	51%
1975	32	0	32	71%	1926	22	65%	49%
1976	20	0	20	45%	1930	22	67%	47%
1977	4	0	4	8%	2003	22	68%	47%
1978	39	0	39	86%	1925	22	69%	47%
1979	34	0	34	75%	1932	21	70%	47%
1980	45	0	45	100%	1959	21	72%	47%
1981	19	0	19	43%	1976	20	73%	45%
1982	45	0	45	100%	1955	20	74%	45%
1983	45	0	45	100%	1981	19	75%	43%
1984	39	0	39	86%	1949	19	77%	42%
1985	26	0	26	56%	1944	18	78%	40%
1986	38	0	38	83%	2002	17	79%	37%
1987	10	0	10	22%	1933	16	80%	36%
1988	7	0	7	15%	1947	14	81%	31%
1989	26	0	26	56%	1994	14	83%	31%
1990	6	0	6	12%	1960	13	84%	29%
1991	7	0	7	16%	1934	13	85%	29%
1992	11	0	11	24%	2001	13	86%	28%
1993	28	0	28	62%	1992	11	88%	24%
1994	14	0	14	31%	1961	11	89%	23%
1995	38	0	38	82%	1987	10	90%	22%
1996	33	0	33	73%	1931	9	91%	20%
1997	39	0	39	85%	1939	9	93%	20%
1998	43	0	43	94%	1929	8	94%	18%
1999	30	0	30	67%	1924	8	95%	18%
2000	33	0	33	72%	1991	7	96%	16%
2001	13	0	13	28%	1988	7	98%	15%
2002	17	0	17	37%	1990	6	99%	12%
2003	22	0	22	47%	1977	4	100%	8%
Average	27	0	27	59%		27		59%
Maximum	45	0	45	100%		45		100%
Minimum	4	0	4	8%		4		8%

Table C.28. Santa Clara Valley WD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	73	0	73	73%	1983	100	0%	100%
1923	62	0	62	62%	1969	97	1%	97%
1924	18	0	18	18%	1938	97	2%	97%
1925	47	0	47	47%	1952	96	4%	96%
1926	49	0	49	49%	1982	95	5%	95%
1927	65	0	65	65%	1980	95	6%	95%
1928	76	0	76	76%	1958	93	7%	93%
1929	18	0	18	18%	1998	93	9%	93%
1930	47	0	47	47%	1943	92	10%	92%
1931	20	0	20	20%	1995	91	11%	91%
1932	47	0	47	47%	1956	89	12%	89%
1933	36	0	36	36%	1967	88	14%	88%
1934	29	0	29	29%	1941	86	15%	86%
1935	65	0	65	65%	1984	86	16%	86%
1936	74	0	74	74%	1978	86	17%	86%
1937	74	0	74	74%	1997	85	19%	85%
1938	97	0	97	97%	1986	84	20%	84%
1939	44	0	44	44%	1951	79	21%	79%
1940	66	0	66	66%	1973	78	22%	78%
1941	86	0	86	86%	1928	76	23%	76%
1942	74	0	74	74%	1974	75	25%	75%
1943	92	0	92	92%	1979	75	26%	75%
1944	40	0	40	40%	1942	74	27%	74%
1945	74	0	74	74%	1945	74	28%	74%
1946	70	0	70	70%	1937	74	30%	74%
1947	54	0	54	54%	1936	74	31%	74%
1948	52	0	52	52%	1922	73	32%	73%
1949	42	0	42	42%	1996	73	33%	73%
1950	56	0	56	56%	1970	72	35%	72%
1951	79	0	79	79%	2000	72	36%	72%
1952	96	0	96	96%	1975	71	37%	71%
1953	52	0	52	52%	1946	70	38%	70%
1954	63	0	63	63%	1965	69	40%	69%
1955	45	0	45	45%	1985	69	41%	69%
1956	89	0	89	89%	1963	68	42%	68%
1957	51	0	51	51%	1999	67	43%	67%
1958	93	0	93	93%	1966	66	44%	66%
1959	47	0	47	47%	1940	66	46%	66%
1960	50	0	50	50%	1971	66	47%	66%
1961	40	0	40	40%	1935	65	48%	65%
1962	59	0	59	59%	1927	65	49%	65%
1963	68	0	68	68%	2003	65	51%	65%
1964	62	0	62	62%	2002	65	52%	65%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	69	0	69	69%	1954	63	53%	63%
1966	66	0	66	66%	1964	62	54%	62%
1967	88	0	88	88%	1993	62	56%	62%
1968	54	0	54	54%	1923	62	57%	62%
1969	97	0	97	97%	1989	62	58%	62%
1970	72	0	72	72%	1962	59	59%	59%
1971	66	0	66	66%	1950	56	60%	56%
1972	52	0	52	52%	1968	54	62%	54%
1973	78	0	78	78%	1947	54	63%	54%
1974	75	0	75	75%	1994	52	64%	52%
1975	71	0	71	71%	1972	52	65%	52%
1976	45	0	45	45%	1948	52	67%	52%
1977	8	0	8	8%	1953	52	68%	52%
1978	86	0	86	86%	1957	51	69%	51%
1979	75	0	75	75%	1960	50	70%	50%
1980	95	0	95	95%	1926	49	72%	49%
1981	43	0	43	43%	1930	47	73%	47%
1982	95	0	95	95%	1925	47	74%	47%
1983	100	0	100	100%	1932	47	75%	47%
1984	86	0	86	86%	1959	47	77%	47%
1985	69	0	69	69%	1976	45	78%	45%
1986	84	0	84	84%	1955	45	79%	45%
1987	22	0	22	22%	1939	44	80%	44%
1988	15	0	15	15%	1981	43	81%	43%
1989	62	0	62	62%	1949	42	83%	42%
1990	27	0	27	27%	1944	40	84%	40%
1991	16	0	16	16%	1961	40	85%	40%
1992	24	0	24	24%	1933	36	86%	36%
1993	62	0	62	62%	1934	29	88%	29%
1994	52	0	52	52%	2001	28	89%	28%
1995	91	0	91	91%	1990	27	90%	27%
1996	73	0	73	73%	1992	24	91%	24%
1997	85	0	85	85%	1987	22	93%	22%
1998	93	0	93	93%	1931	20	94%	20%
1999	67	0	67	67%	1929	18	95%	18%
2000	72	0	72	72%	1924	18	96%	18%
2001	28	0	28	28%	1991	16	98%	16%
2002	65	0	65	65%	1988	15	99%	15%
2003	65	0	65	65%	1977	8	100%	8%
Average	61	0	61	61%		61		61%
Maximum	100	0	100	100%		100		100%
Minimum	8	0	8	8%		8		8%

Table C.29. Solano County WA: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	48	0	48	100%	1938	48	0%	100%
1923	40	0	40	84%	1938	48	1%	100%
1924	12	0	12	25%	1938	48	2%	100%
1925	23	0	23	48%	1938	48	4%	100%
1926	23	0	23	48%	1938	48	5%	100%
1927	44	0	44	93%	1938	48	6%	100%
1928	44	0	44	93%	1922	48	7%	100%
1929	12	0	12	25%	1922	48	9%	100%
1930	23	0	23	48%	1922	48	10%	100%
1931	12	0	12	25%	1922	48	11%	100%
1932	12	0	12	25%	1963	48	12%	100%
1933	12	0	12	25%	1963	48	14%	100%
1934	10	0	10	22%	1963	48	15%	100%
1935	23	0	23	48%	1963	48	16%	100%
1936	40	0	40	84%	1942	48	17%	100%
1937	23	0	23	48%	1942	48	19%	100%
1938	48	0	48	100%	1942	48	20%	100%
1939	40	0	40	84%	1942	48	21%	100%
1940	44	0	44	93%	1942	48	22%	100%
1941	48	0	48	100%	1942	48	23%	100%
1942	48	0	48	100%	1942	48	25%	100%
1943	48	0	48	100%	1942	48	26%	100%
1944	23	0	23	48%	1942	48	27%	100%
1945	40	0	40	84%	1942	48	28%	100%
1946	44	0	44	93%	1942	48	30%	100%
1947	23	0	23	48%	1942	48	31%	100%
1948	40	0	40	84%	1927	44	32%	93%
1949	23	0	23	48%	1927	44	33%	93%
1950	23	0	23	48%	1927	44	35%	93%
1951	44	0	44	93%	1927	44	36%	93%
1952	48	0	48	100%	1927	44	37%	93%
1953	48	0	48	100%	1927	44	38%	93%
1954	44	0	44	93%	1927	44	40%	93%
1955	23	0	23	48%	1927	44	41%	93%
1956	48	0	48	100%	1927	44	42%	93%
1957	44	0	44	93%	1940	44	43%	93%
1958	48	0	48	100%	1940	44	44%	93%
1959	40	0	40	84%	1940	44	46%	93%
1960	23	0	23	48%	2003	43	47%	91%
1961	23	0	23	48%	1923	40	48%	84%
1962	40	0	40	84%	1923	40	49%	84%
1963	48	0	48	100%	1923	40	51%	84%
1964	23	0	23	48%	1923	40	52%	84%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	100%	1923	40	53%	84%
1966	40	0	40	84%	1923	40	54%	84%
1967	48	0	48	100%	1923	40	56%	84%
1968	40	0	40	84%	1923	40	57%	84%
1969	48	0	48	100%	1923	40	58%	84%
1970	48	0	48	100%	1923	40	59%	84%
1971	48	0	48	100%	1923	40	60%	84%
1972	40	0	40	84%	1947	23	62%	48%
1973	44	0	44	93%	2002	23	63%	48%
1974	48	0	48	100%	1925	23	64%	48%
1975	48	0	48	100%	1925	23	65%	48%
1976	23	0	23	48%	1925	23	67%	48%
1977	12	0	12	25%	1925	23	68%	48%
1978	44	0	44	93%	1925	23	69%	48%
1979	23	0	23	48%	1925	23	70%	48%
1980	44	0	44	93%	1925	23	72%	48%
1981	23	0	23	48%	1925	23	73%	48%
1982	48	0	48	100%	1925	23	74%	48%
1983	48	0	48	100%	1925	23	75%	48%
1984	48	0	48	100%	1925	23	77%	48%
1985	40	0	40	84%	1925	23	78%	48%
1986	48	0	48	100%	1925	23	79%	48%
1987	23	0	23	48%	1925	23	80%	48%
1988	12	0	12	25%	1925	23	81%	48%
1989	23	0	23	48%	1925	23	83%	48%
1990	12	0	12	25%	1937	23	84%	48%
1991	12	0	12	25%	1937	23	85%	48%
1992	12	0	12	25%	1924	12	86%	25%
1993	44	0	44	93%	1924	12	88%	25%
1994	12	0	12	25%	1924	12	89%	25%
1995	48	0	48	100%	1931	12	90%	25%
1996	48	0	48	100%	1931	12	91%	25%
1997	48	0	48	100%	1931	12	93%	25%
1998	48	0	48	100%	1931	12	94%	25%
1999	48	0	48	100%	1931	12	95%	25%
2000	44	0	44	93%	1931	12	96%	25%
2001	23	0	23	48%	1931	12	98%	25%
2002	23	0	23	48%	1931	12	99%	25%
2003	43	0	43	91%	1934	10	100%	22%
Average	35	0	35	73%		35		73%
Maximum	48	0	48	100%		48		100%
Minimum	10	0	10	22%		10		22%

Table C.30. Tulare Lake Basin WSD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	65	0	65	73%	1938	89	0%	100%
1923	55	0	55	62%	1938	89	1%	100%
1924	16	0	16	18%	1938	89	2%	100%
1925	42	0	42	47%	1938	89	4%	100%
1926	43	0	43	49%	1958	89	5%	100%
1927	58	0	58	65%	1980	89	6%	100%
1928	68	0	68	76%	1952	86	7%	97%
1929	16	0	16	18%	1998	83	9%	94%
1930	42	0	42	47%	1956	79	10%	89%
1931	18	0	18	20%	1967	78	11%	88%
1932	42	0	42	47%	1941	77	12%	86%
1933	32	0	32	36%	1984	77	14%	86%
1934	25	0	25	29%	1978	77	15%	86%
1935	58	0	58	65%	1997	76	16%	85%
1936	66	0	66	74%	1943	74	17%	84%
1937	66	0	66	74%	1951	70	19%	79%
1938	89	0	89	100%	1973	69	20%	78%
1939	15	0	15	17%	1928	68	21%	76%
1940	59	0	59	66%	1974	67	22%	75%
1941	77	0	77	86%	1979	67	23%	75%
1942	66	0	66	74%	1942	66	25%	74%
1943	74	0	74	84%	1995	66	26%	74%
1944	36	0	36	40%	1945	66	27%	74%
1945	66	0	66	74%	1937	66	28%	74%
1946	62	0	62	70%	1936	66	30%	74%
1947	34	0	34	38%	1922	65	31%	73%
1948	46	0	46	52%	1996	65	32%	73%
1949	37	0	37	42%	1970	64	33%	72%
1950	49	0	49	56%	2000	64	35%	72%
1951	70	0	70	79%	1975	63	36%	71%
1952	86	0	86	97%	1946	62	37%	70%
1953	46	0	46	52%	1965	62	38%	69%
1954	56	0	56	63%	1963	61	40%	68%
1955	40	0	40	45%	1999	59	41%	67%
1956	79	0	79	89%	1966	59	42%	66%
1957	46	0	46	51%	1940	59	43%	66%
1958	89	0	89	100%	1971	58	44%	66%
1959	42	0	42	47%	1935	58	46%	65%
1960	31	0	31	35%	1927	58	47%	65%
1961	16	0	16	18%	1954	56	48%	63%
1962	53	0	53	59%	1993	55	49%	62%
1963	61	0	61	68%	1923	55	51%	62%
1964	38	0	38	42%	1986	54	52%	60%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	62	0	62	69%	2003	53	53%	60%
1966	59	0	59	66%	1962	53	54%	59%
1967	78	0	78	88%	1950	49	56%	56%
1968	48	0	48	54%	1985	49	57%	55%
1969	89	0	89	100%	1968	48	58%	54%
1970	64	0	64	72%	1972	46	59%	52%
1971	58	0	58	66%	1948	46	60%	52%
1972	46	0	46	52%	1953	46	62%	52%
1973	69	0	69	78%	1957	46	63%	51%
1974	67	0	67	75%	1989	44	64%	50%
1975	63	0	63	71%	1926	43	65%	49%
1976	40	0	40	45%	1930	42	67%	47%
1977	7	0	7	8%	1925	42	68%	47%
1978	77	0	77	86%	1932	42	69%	47%
1979	67	0	67	75%	1959	42	70%	47%
1980	89	0	89	100%	1976	40	72%	45%
1981	38	0	38	43%	1955	40	73%	45%
1982	89	0	89	100%	1981	38	74%	43%
1983	89	0	89	100%	1964	38	75%	42%
1984	77	0	77	86%	1949	37	77%	42%
1985	49	0	49	55%	2002	37	78%	42%
1986	54	0	54	60%	1944	36	79%	40%
1987	11	0	11	13%	1947	34	80%	38%
1988	8	0	8	9%	1933	32	81%	36%
1989	44	0	44	50%	1960	31	83%	35%
1990	14	0	14	16%	1934	25	84%	29%
1991	14	0	14	16%	2001	25	85%	28%
1992	12	0	12	14%	1994	18	86%	20%
1993	55	0	55	62%	1931	18	88%	20%
1994	18	0	18	20%	1929	16	89%	18%
1995	66	0	66	74%	1961	16	90%	18%
1996	65	0	65	73%	1924	16	91%	18%
1997	76	0	76	85%	1939	15	93%	17%
1998	83	0	83	94%	1991	14	94%	16%
1999	59	0	59	67%	1990	14	95%	16%
2000	64	0	64	72%	1992	12	96%	14%
2001	25	0	25	28%	1987	11	98%	13%
2002	37	0	37	42%	1988	8	99%	9%
2003	53	0	53	60%	1977	7	100%	8%
Average	52	0	52	58%		52		58%
Maximum	89	0	89	100%		89		100%
Minimum	7	0	7	8%		7		8%

Table C.31. Ventura County WPD: 2015 DCR ELT

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	15	0	15	73%	1938	20	0%	100%
1923	12	0	12	62%	1938	20	1%	100%
1924	4	0	4	18%	1938	20	2%	100%
1925	9	0	9	47%	1998	19	4%	94%
1926	10	0	10	49%	1982	19	5%	93%
1927	13	0	13	65%	1980	19	6%	93%
1928	15	0	15	76%	1958	19	7%	93%
1929	4	0	4	18%	1952	18	9%	90%
1930	9	0	9	47%	1956	18	10%	89%
1931	4	0	4	20%	1941	17	11%	86%
1932	9	0	9	47%	1984	17	12%	86%
1933	7	0	7	36%	1978	17	14%	86%
1934	6	0	6	29%	1943	17	15%	86%
1935	13	0	13	65%	1997	17	16%	85%
1936	15	0	15	74%	1995	17	17%	85%
1937	15	0	15	74%	1967	16	19%	82%
1938	20	0	20	100%	1951	16	20%	79%
1939	9	0	9	44%	1973	16	21%	78%
1940	13	0	13	66%	1986	16	22%	78%
1941	17	0	17	86%	1928	15	23%	76%
1942	15	0	15	74%	1974	15	25%	75%
1943	17	0	17	86%	1979	15	26%	75%
1944	8	0	8	40%	1942	15	27%	74%
1945	15	0	15	74%	1945	15	28%	74%
1946	14	0	14	70%	1937	15	30%	74%
1947	11	0	11	54%	1936	15	31%	74%
1948	10	0	10	52%	1922	15	32%	73%
1949	8	0	8	42%	1996	15	33%	73%
1950	11	0	11	56%	1970	14	35%	72%
1951	16	0	16	79%	2000	14	36%	72%
1952	18	0	18	90%	1975	14	37%	71%
1953	10	0	10	52%	1946	14	38%	70%
1954	13	0	13	63%	1965	14	40%	69%
1955	9	0	9	45%	1963	14	41%	68%
1956	18	0	18	89%	1999	13	42%	67%
1957	10	0	10	51%	1966	13	43%	66%
1958	19	0	19	93%	1940	13	44%	66%
1959	9	0	9	47%	1971	13	46%	66%
1960	10	0	10	50%	1935	13	47%	65%
1961	8	0	8	40%	1927	13	48%	65%
1962	12	0	12	59%	2002	13	49%	65%
1963	14	0	14	68%	1985	13	51%	64%
1964	12	0	12	62%	1954	13	52%	63%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	14	0	14	69%	1964	12	53%	62%
1966	13	0	13	66%	1993	12	54%	62%
1967	16	0	16	82%	1923	12	56%	62%
1968	11	0	11	54%	1989	12	57%	62%
1969	20	0	20	100%	1962	12	58%	59%
1970	14	0	14	72%	2003	11	59%	57%
1971	13	0	13	66%	1950	11	60%	56%
1972	10	0	10	52%	1968	11	62%	54%
1973	16	0	16	78%	1947	11	63%	54%
1974	15	0	15	75%	1994	10	64%	52%
1975	14	0	14	71%	1972	10	65%	52%
1976	9	0	9	45%	1948	10	67%	52%
1977	2	0	2	8%	1953	10	68%	52%
1978	17	0	17	86%	1957	10	69%	51%
1979	15	0	15	75%	1960	10	70%	50%
1980	19	0	19	93%	1926	10	72%	49%
1981	9	0	9	43%	1930	9	73%	47%
1982	19	0	19	93%	1925	9	74%	47%
1983	20	0	20	100%	1932	9	75%	47%
1984	17	0	17	86%	1959	9	77%	47%
1985	13	0	13	64%	1976	9	78%	45%
1986	16	0	16	78%	1955	9	79%	45%
1987	4	0	4	22%	1939	9	80%	44%
1988	3	0	3	15%	1981	9	81%	43%
1989	12	0	12	62%	1949	8	83%	42%
1990	5	0	5	27%	1944	8	84%	40%
1991	3	0	3	16%	1961	8	85%	40%
1992	5	0	5	24%	1933	7	86%	36%
1993	12	0	12	62%	1934	6	88%	29%
1994	10	0	10	52%	2001	6	89%	28%
1995	17	0	17	85%	1990	5	90%	27%
1996	15	0	15	73%	1992	5	91%	24%
1997	17	0	17	85%	1987	4	93%	22%
1998	19	0	19	94%	1931	4	94%	20%
1999	13	0	13	67%	1929	4	95%	18%
2000	14	0	14	72%	1924	4	96%	18%
2001	6	0	6	28%	1991	3	98%	16%
2002	13	0	13	65%	1988	3	99%	15%
2003	11	0	11	57%	1977	2	100%	8%
Average	12	0	12	61%		12		61%
Maximum	20	0	20	100%		20		100%
Minimum	2	0	2	8%		2		8%



Appendix D:

Existing Conveyance High Outflow Scenario

Introduction

The purpose of this document is to provide supplemental information related to an alternative study for the 2015 Delivery Capability Report (DCR). This study is based on the Existing Conveyance High Outflow (ECHO) Scenario derived for the BDCP planning process, and is referred to herein as "2015 DCR ECHO." Existing Conveyance" implies use of existing water delivery infrastructure without BDCP. "High Outflow" refers to an enhanced spring Delta outflow requirement. This appendix presents a brief description of the model assumptions, and State Water Project (SWP) contractor deliveries for the 2015 DCR ECHO study. The following items are discussed:

- Model assumptions
- Simulation results
 - Annual delivery for Table A, Article 56, and Article 21
 - SWP contractor annual deliveries

Overview of Model Assumptions

The modeling assumptions for 2015 DCR ECHO are provided in Table D.1. The 2015 DCR ECHO study was based on the ELT study (Appendix C). Detailed descriptions of the ECHO Scenario assumptions are located in Chapter 9 (*Alternatives to Take*) and Appendix 9.A (*Economic Benefits of the BDCP and Take Alternatives*) of the Bay Delta Conservation Plan Draft EIR/EIS from November 2013, which can be accessed through the following links, respectively:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Chapter_9_-_Alternatives_to_Take.sflb.ashx

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Appendix_9A_-_Economic_Benefits_of_the_BDCP_and_Take_Alternatives.sflb.ashx

The ECHO Scenario includes the following assumptions:

- Operation of existing south of Delta conveyance facilities without BDCP
- South Delta operating restrictions (Scenario 6)
- Fall X2 and enhanced spring outflow requirements
- Early Long-Term climate change conditions (2025) with sea level rise of 15 cm

Table D.1. CalSim II Modeling Assumptions for 2015 DCR ECHO

	2015 DCR ECHO Assumptions ¹
Planning Horizon	2025
Period of Simulation	82 years (1922-2003)
HYDROLOGY	
Level of Development (land use)	2030 Level ²
Climate Change	ELT (2025 emission level + 15 cm SLR)
DEMANDS	
North of Delta (excluding the American River)	
CVP	Land-use based, full build-out of contract amounts ³
SWP (FRSA)	Land-use based, limited by contract amounts ^{4,7}
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities
Antioch Water Works	Pre-1914 water right
Federal refuges	Firm Level 2 water needs ⁵
American River Basin	
Water rights	Year 2025, full water rights ⁶
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶
San Joaquin River Basin⁸	
Friant Unit	Limited by contract amounts, based on current allocation policy
Lower basin	Land-use based, based on district level operations and constraints
Stanislaus River basin ^{9,17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index
South of Delta	
CVP	Demand based on contract amounts ³
Federal refuges	Firm Level 2 water needs ⁵
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰
SWP ^{4,11}	Demand based on full Table A amounts (4.13 MAF/yr)
Article 56	Based on 2001-2008 contractor requests
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵

2015 DCR ECHO Assumptions ¹	
FACILITIES	
System-wide	Existing facilities
Sacramento Valley	
Shasta Lake	Existing, 4,552 TAF capacity
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place
Colusa Basin	Existing conveyance and storage facilities
Lower American River	Hodge criteria for diversion at Fairbairn
Upper American River	PCWA American River pump station
Lower Sacramento River	Freeport Regional Water Project
Fremont Weir	Existing Weir
Delta Export Conveyance	
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs, permitted capacity is 6,680 cfs in all months and up to 8,500 cfs during Dec 15 th - Mar 15 th depending on Vernalis flow conditions ¹⁸ ; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul-Sep for reducing impact of NMFS BO (Jun 2009) Action IV.2.1 ¹⁷ on SWP ¹⁹
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³
San Joaquin River	
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity
South of Delta (CVP/SWP project facilities)	
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point
California Aqueduct East Branch	Existing capacity
REGULATORY STANDARDS	
Trinity River	
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF/yr as able)

2015 DCR ECHO Assumptions ¹	
Clear Creek	
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷
Upper Sacramento River	
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷
Feather River	
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)
Yuba River	
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴
American River	
Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1 ¹⁷
Minimum flow at H Street Bridge	SWRCB D-893
Lower Sacramento River	
Minimum flow near Rio Vista	SWRCB D-1641
Mokelumne River	
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100 – 325 cfs)
Minimum flow below Woodbridge Diversion Dam	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 cfs)
Stanislaus River	
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
Minimum dissolved oxygen	SWRCB D-1422
Merced River	

2015 DCR ECHO Assumptions ¹	
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 cfs, Nov – Mar), and Cowell Agreement
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25 – 100 cfs)
Tuolumne River	
Minimum flow at Lagrange Bridge	Federal Energy Regulatory Commission 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/yr)
Updated Tuolumne River	New Don Pedro operations
San Joaquin River	
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows
Maximum salinity near Vernalis	SWRCB D-1641
Minimum flow near Vernalis	SWRCB D-1641.VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water
Sacramento-San Joaquin Delta	
Delta Outflow Index (flow and salinity)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷ and additional flow for the enhanced spring (Mar – May) outflow requirement ²²
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹
Combined Flow in Old and Middle River (OMR)	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{23, 24}
OPERATIONS CRITERIA: RIVER-SPECIFIC	
Upper Sacramento River	
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250 – 5,000 cfs based on CVP water supply condition
American River	
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)
Feather River	
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr - Sep dependent on Oroville inflow and FRSA allocation
Stanislaus River	
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷

2015 DCR ECHO Assumptions ¹	
San Joaquin River	
Salinity at Vernalis	Grasslands Bypass Project (full implementation)
OPERATIONS CRITERIA: SYSTEMWIDE	
CVP Water Allocation	
CVP settlement and exchange	100% (75% in Shasta critical years)
CVP refuges	100% (75% in Shasta critical years)
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
SWP Water Allocation	
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
CVP/SWP Coordinated Operations	
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)
Sharing of surplus flows	1986 Coordinated Operations Agreement
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF
CVPIA 3406(b)(2)	
Policy decision	Per May 2003 Department of Interior decision
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow

2015 DCR ECHO Assumptions ¹	
	objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO (Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting
WATER MANAGEMENT ACTIONS	
Water Transfer Supplies (long term programs)	
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP
Phase 8	None
Water Transfers (short term or temporary programs)	
Sacramento Valley acquisitions conveyed through Banks PP ²¹	Post analysis of available capacity

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.
- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.

- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.
- ¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.
- ²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.
- ²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.
- ²² Enhanced Spring Delta Outflow required during the Mar-May period. This additional Mar-May Delta Outflow requirement is determined based on a forecasted Mar-May Eight River Index (8RI). For modeling purposes the Mar-May 8RI was forecasted based on a correlation between the actual Jan-Feb 8RI and actual Mar-May 8RI. Each year in March, Spring Delta Outflow target for the Mar-May period is determined based on the forecasted Mar-May 8RI value and its exceedance probability from the schedule below, linearly interpolating for values in-between. This additional spring outflow is not considered as an "in-basin use" for CVP-SWP Coordinated Operations. This outflow requirement is met through first by curtailing Delta exports at Banks and Jones Pumping Plants by an amount needed to meet the outflow target, such that the minimum exports are at least 1,500 cfs. In wetter years (< 50% exceedance), if the outflow target is not achieved by export curtailments, then the additional flow needed to meet the outflow target is released from the Oroville reservoir as long as its projected end-of-May storage is at or above 2 MAF. Only acquisitions of Lower Yuba River Accord Component 1 water are included. Percent exceedance of forecasted Mar-May 8RI base on Jan-Feb 8RI values and corresponding proposed Mar-May Delta outflow target: 10%(44,500 cfs); 20%(44,500 cfs); 30%(35,000 cfs); 40%(32,000 cfs); 50%(23,000 cfs); 60%(17,200 cfs); 70%(13,300); 80%(11,400 cfs); 90%(9,200 cfs).
- ²³ Scenario 6 OMR Operations. Jan: 0 (W), -3500 (AN), -4000 (BN), -5000 (D, C); Feb: 0 (W), -3500 (AN), -4000 (BN, D, C); Mar: 0 (W, AN), -3500 (AN, BN, D, C); Apr - Jun: Varies based on San Joaquin inflow relationship to OMR; Jul - Sep: No Restrictions; Oct - Nov: Varies based SJR pulse flow condition; Dec: -5000 when north Delta initial pulse flows are triggered or -2000 when delta smelt action 1 triggers; HORB opening is restricted.
- ²⁴ BDCP Scenario 6 represents a set of proposed operations, which include operating criteria for North Delta diversion bypass flows, South Delta channel flows, HORB operations, Fremont Weir/Yolo Bypass inundation, DCC Gate operations, Rio Vista minimum flows, Water Quality and Residence Time and Ag/M&I water quality requirements. The ECLO and ECHO studies adopt some Scenario 6 operating criteria for South Delta Operating Restrictions, primarily regarding OMR flows and HORB.

Key:

ACOE = Army Corps of Engineers
Ag = agricultural
BDCP = Bay-Delta Conservation Plan
BO = Biological Opinion
CALFED = CALFED Bay-Delta Program
CCWD = Contra Costa Water District
cfs = cubic feet per second
CVP = Central Valley Project
CVPIA = Central Valley Project Improvement Act
D-xxxx = Water Right Decision
DFG = California Department of Fish and Game
DMC = Delta-Mendota canal
DWR = California Department of Water Resources
EBMUD = East Bay Municipal Utility District
ECHO = Existing Conveyance High Outflow (Scenario)
EIS = Environmental Impact Statement
FC&WSD = Flood Control and Water Service District
FERC = Federal Energy Regulatory Commission
FRSA = Feather River Service Area
FRWP = Freeport Regional Water Project
FWS = Fish and Wildlife Service
KCWA = Kern County Water Agency
LYRA = Lower Yuba River Accord
MAF/yr = million acre-feet per year
M&I = municipal and industrial
MWD = Metropolitan Water District
NAA = No Action Alternative
NEPA = National Environmental Policy Act
NMFS = National Marine Fisheries Service
NPS = National Park Service
PCWA = Placer County Water Agency
PP = Pumping Plant
Reclamation = United States Department of the Interior, Bureau of Reclamation
ROD = Record of Decision
SBA = South Bay Aqueduct
SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year

Simulation Results for 2015 DCR ECHO

The deliveries shown in this report only include those State Water Contractors that rely on delivery of water from the Sacramento-San Joaquin Delta; therefore, State Water Contractors in the Feather River area and upstream (i.e., Butte County, Plumas County Flood Control and Water Conservation District, and Yuba City) are excluded from this analysis. This section of the appendix presents results for the Existing Conditions scenario.

SWP Table A Deliveries

Figure D.1 shows the comparison of SWP Table A delivery exceedence curves between the 2015 DCR ELT and 2015 DCR ECHO studies. The Table A deliveries for State Water Contractors for 2015 DCR ECHO are shown in Table 5 on the following page. The results for individual Contractor Table A deliveries are included at the end of this appendix.

Figure D.1. Comparison of SWP Table A delivery probability between 2015 DCR ELT and 2015 DCR ECHO

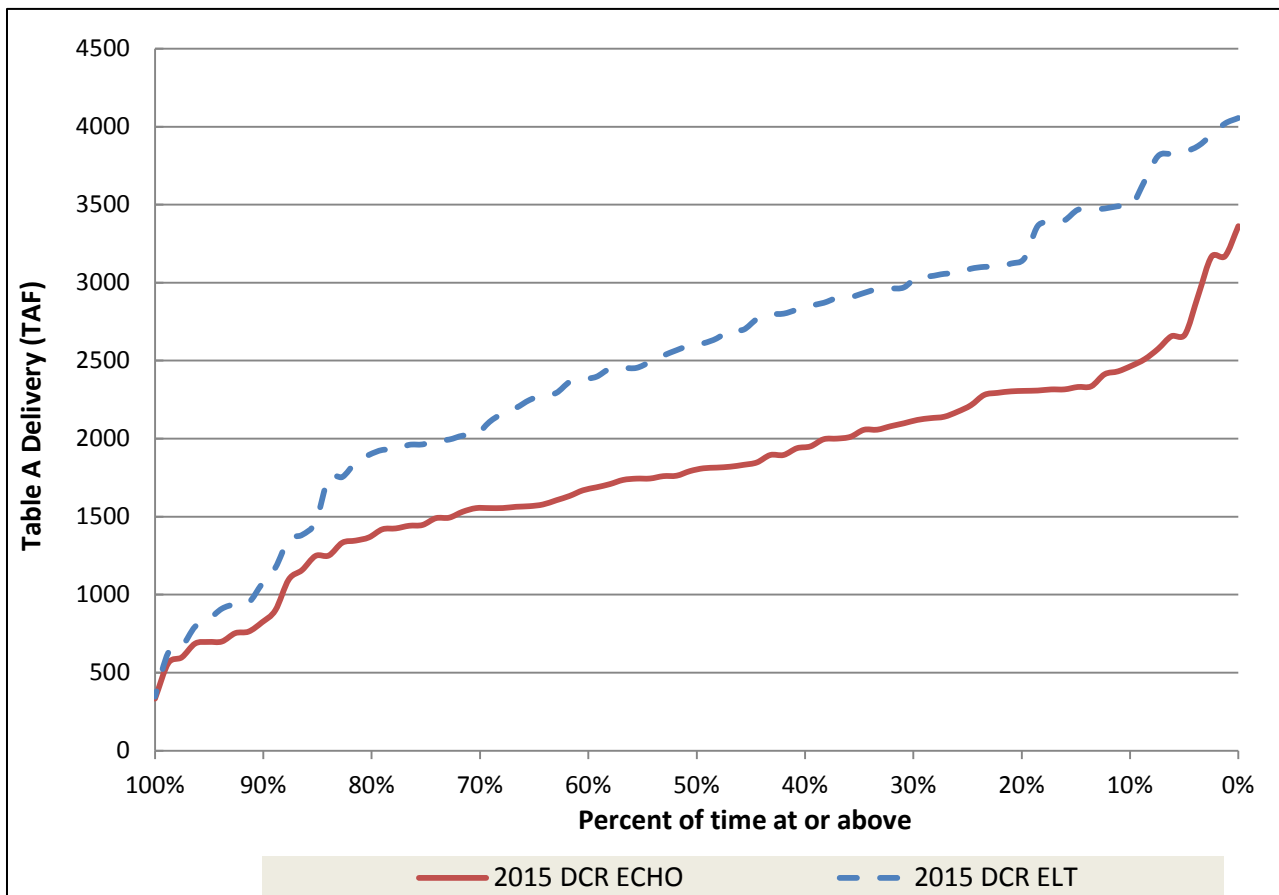


Table D.2. SWP Table A Deliveries for 2015 DCR ECHO

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1922	4,133	1,939	47%	1983	3,362	0%	81%
1923	4,133	1,820	44%	1938	3,170	1%	77%
1924	4,133	753	18%	1969	3,168	2%	77%
1925	4,133	1,605	39%	1982	2,919	4%	71%
1926	4,133	1,555	38%	1978	2,667	5%	65%
1927	4,133	1,815	44%	1998	2,657	6%	64%
1928	4,133	2,132	52%	1986	2,576	7%	62%
1929	4,133	697	17%	1941	2,510	9%	61%
1930	4,133	2,058	50%	1984	2,467	10%	60%
1931	4,133	687	17%	1943	2,432	11%	59%
1932	4,133	1,333	32%	1995	2,413	12%	58%
1933	4,133	763	18%	1989	2,336	14%	57%
1934	4,133	1,158	28%	1980	2,331	15%	56%
1935	4,133	2,306	56%	1937	2,316	16%	56%
1936	4,133	1,760	43%	1996	2,316	17%	56%
1937	4,133	2,316	56%	1979	2,309	19%	56%
1938	4,133	3,170	77%	1935	2,306	20%	56%
1939	4,133	1,563	38%	1958	2,303	21%	56%
1940	4,133	2,120	51%	1999	2,294	22%	56%
1941	4,133	2,510	61%	1952	2,281	23%	55%
1942	4,133	1,810	44%	1956	2,214	25%	54%
1943	4,133	2,432	59%	1973	2,173	26%	53%
1944	4,133	1,745	42%	1967	2,140	27%	52%
1945	4,133	1,763	43%	1928	2,132	28%	52%
1946	4,133	1,442	35%	1940	2,120	30%	51%
1947	4,133	1,248	30%	1997	2,099	31%	51%
1948	4,133	1,950	47%	2003	2,080	32%	50%
1949	4,133	1,567	38%	1930	2,058	33%	50%
1950	4,133	1,792	43%	1964	2,057	35%	50%
1951	4,133	2,012	49%	1951	2,012	36%	49%
1952	4,133	2,281	55%	1975	2,001	37%	48%
1953	4,133	1,419	34%	1972	1,997	38%	48%
1954	4,133	1,736	42%	1948	1,950	40%	47%
1955	4,133	1,251	30%	1922	1,939	41%	47%
1956	4,133	2,214	54%	1993	1,896	42%	46%
1957	4,133	1,494	36%	1965	1,895	43%	46%
1958	4,133	2,303	56%	1968	1,848	44%	45%
1959	4,133	1,425	34%	2002	1,832	46%	44%
1960	4,133	1,555	38%	1923	1,820	47%	44%
1961	4,133	1,367	33%	1927	1,815	48%	44%
1962	4,133	1,447	35%	1942	1,810	49%	44%
1963	4,133	1,669	40%	1950	1,792	51%	43%
1964	4,133	2,057	50%	1945	1,763	52%	43%

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1965	4,133	1,895	46%	1936	1,760	53%	43%
1966	4,133	1,490	36%	1944	1,745	54%	42%
1967	4,133	2,140	52%	1974	1,744	56%	42%
1968	4,133	1,848	45%	1954	1,736	57%	42%
1969	4,133	3,168	77%	1976	1,709	58%	41%
1970	4,133	1,633	40%	1994	1,688	59%	41%
1971	4,133	1,578	38%	1963	1,669	60%	40%
1972	4,133	1,997	48%	1970	1,633	62%	40%
1973	4,133	2,173	53%	1925	1,605	63%	39%
1974	4,133	1,744	42%	1971	1,578	64%	38%
1975	4,133	2,001	48%	1949	1,567	65%	38%
1976	4,133	1,709	41%	1939	1,563	67%	38%
1977	4,133	334	8%	1960	1,555	68%	38%
1978	4,133	2,667	65%	1926	1,555	69%	38%
1979	4,133	2,309	56%	1985	1,555	70%	38%
1980	4,133	2,331	56%	2000	1,532	72%	37%
1981	4,133	1,347	33%	1957	1,494	73%	36%
1982	4,133	2,919	71%	1966	1,490	74%	36%
1983	4,133	3,362	81%	1962	1,447	75%	35%
1984	4,133	2,467	60%	1946	1,442	77%	35%
1985	4,133	1,555	38%	1959	1,425	78%	34%
1986	4,133	2,576	62%	1953	1,419	79%	34%
1987	4,133	1,097	27%	1961	1,367	80%	33%
1988	4,133	598	14%	1981	1,347	81%	33%
1989	4,133	2,336	57%	1932	1,333	83%	32%
1990	4,133	900	22%	1955	1,251	84%	30%
1991	4,133	562	14%	1947	1,248	85%	30%
1992	4,133	700	17%	1934	1,158	86%	28%
1993	4,133	1,896	46%	1987	1,097	88%	27%
1994	4,133	1,688	41%	1990	900	89%	22%
1995	4,133	2,413	58%	2001	823	90%	20%
1996	4,133	2,316	56%	1933	763	91%	18%
1997	4,133	2,099	51%	1924	753	93%	18%
1998	4,133	2,657	64%	1992	700	94%	17%
1999	4,133	2,294	56%	1929	697	95%	17%
2000	4,133	1,532	37%	1931	687	96%	17%
2001	4,133	823	20%	1988	598	98%	14%
2002	4,133	1,832	44%	1991	562	99%	14%
2003	4,133	2,080	50%	1977	334	100%	8%
Average	4,133	1,794	43%	Average	1,794		43%
Minimum	4,133	334	8%	Minimum	334		8%
Maximum	4,133	3,362	81%	Maximum	3,362		81%

Article 21 Deliveries

Table D.3 below shows the State Water Contractors' Article 21 deliveries for the 2015 DCR ECHO Study.

Table D.3. Article 21 Deliveries for 2015 DCR ECHO

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										0	0	2	2
1922	2	2	2	2	0	0	0	0	0	0	0	2	10
1923	2	2	2	2	1	1	0	2	0	2	2	0	16
1924	2	2	0	0	0	0	2	2	0	2	0	2	12
1925	2	2	2	2	2	0	0	2	0	2	2	0	16
1926	2	2	2	2	0	0	2	2	0	1	2	2	17
1927	2	2	2	2	0	0	2	0	0	0	2	2	14
1928	2	2	2	2	0	1	2	0	0	1	0	2	14
1929	2	2	2	2	0	0	0	2	0	0	0	2	12
1930	2	2	2	2	0	0	0	2	0	0	0	0	10
1931	2	2	2	0	0	0	0	2	0	0	0	2	10
1932	2	2	2	2	2	0	0	0	0	0	0	2	12
1933	2	2	2	2	2	0	0	2	0	0	0	2	14
1934	2	2	2	0	0	0	0	2	0	0	2	2	12
1935	2	2	2	2	2	0	0	2	0	2	0	0	14
1936	2	2	2	2	1	0	0	0	0	0	0	0	9
1937	2	2	2	2	2	0	0	0	0	2	2	2	16
1938	2	2	5	2	1	0	0	0	0	0	0	0	12
1939	2	2	2	0	1	1	2	0	0	0	0	0	11
1940	2	2	2	2	0	0	2	0	0	1	0	2	13
1941	2	2	2	2	0	0	0	0	0	0	0	2	10
1942	2	2	2	2	0	0	0	0	0	0	0	2	10
1943	2	2	2	2	0	0	2	0	0	0	0	2	12
1944	2	2	2	2	2	0	0	2	0	0	2	2	16
1945	2	2	2	2	1	0	0	0	0	1	2	2	14
1946	2	2	2	2	0	0	2	0	0	1	0	2	13
1947	2	2	2	2	2	0	0	2	0	2	2	0	16
1948	2	0	2	2	1	1	0	2	0	1	2	2	15
1949	2	2	2	2	2	0	0	2	0	0	0	0	12
1950	2	2	2	2	0	0	0	2	0	2	2	2	16
1951	2	2	2	2	0	0	2	0	0	0	2	2	14
1952	2	2	2	2	0	0	0	0	0	0	0	2	10
1953	2	2	2	2	0	0	0	0	0	0	0	2	10
1954	2	2	2	2	0	0	2	0	0	1	2	2	15
1955	2	2	2	2	2	0	0	2	0	0	2	2	16
1956	2	2	2	2	0	0	0	0	0	0	0	0	8
1957	2	2	2	2	0	0	2	0	0	1	2	2	15
1958	2	2	2	2	0	0	0	0	0	0	0	2	10
1959	2	2	2	2	1	0	2	0	0	0	0	0	11
1960	2	2	2	0	2	0	2	0	0	0	2	2	14
1961	2	2	2	0	2	0	0	2	0	0	2	2	14
1962	2	2	2	2	1	0	2	0	0	1	2	2	16
1963	2	2	2	2	0	0	2	0	0	0	2	2	14

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1964	2	2	2	2	2	0	0	2	0	0	2	2	16
1965	2	2	2	2	0	0	1	0	0	0	2	2	13
1966	2	2	2	2	0	0	2	0	0	2	2	2	16
1967	2	2	32	2	0	0	2	0	0	0	0	2	43
1968	2	2	2	2	1	0	2	0	0	2	2	2	17
1969	2	2	115	2	0	0	0	2	0	0	0	2	125
1970	2	2	2	2	0	0	2	0	0	0	2	2	14
1971	2	2	2	2	0	0	2	2	0	0	0	2	14
1972	2	2	2	2	1	0	2	0	0	2	2	2	17
1973	2	2	2	2	0	0	2	0	0	1	2	2	15
1974	2	2	2	2	0	0	0	0	0	0	0	2	10
1975	2	2	2	2	0	0	0	0	0	0	0	2	11
1976	2	2	2	2	2	2	2	2	0	0	0	0	16
1977	2	0	2	0	0	0	0	0	0	0	0	2	6
1978	2	2	2	2	0	0	0	0	0	0	0	2	11
1979	2	2	2	2	2	0	0	2	0	2	2	2	18
1980	2	2	79	2	0	0	0	0	0	0	0	2	88
1981	2	2	2	2	2	0	0	2	0	2	2	2	18
1982	2	2	2	2	0	0	0	0	0	0	2	2	12
1983	2	28	112	2	0	0	2	0	0	0	2	154	302
1984	191	80	2	2	0	0	2	0	0	0	2	2	281
1985	2	2	2	2	0	0	0	0	0	2	2	2	14
1986	2	2	2	2	0	0	2	0	0	0	0	2	12
1987	2	2	2	0	2	0	0	2	0	0	0	2	12
1988	2	0	2	2	0	0	0	2	0	0	2	2	12
1989	2	0	2	2	0	0	2	2	2	2	0	0	14
1990	2	2	2	0	2	0	0	2	0	0	0	0	10
1991	2	2	2	2	2	0	0	2	0	0	0	0	12
1992	2	2	2	2	0	0	0	2	0	0	0	2	12
1993	2	2	2	2	0	0	0	0	0	0	0	2	11
1994	2	2	2	2	2	0	0	2	0	2	0	2	16
1995	2	2	2	2	0	0	0	0	0	0	0	2	10
1996	2	2	2	2	0	0	0	0	0	0	0	2	10
1997	2	25	2	2	0	0	2	0	0	0	0	2	35
1998	2	2	2	2	0	0	0	0	0	0	2	2	13
1999	2	2	2	2	0	0	2	0	0	0	0	0	10
2000	2	2	2	2	0	0	2	0	0	0	0	0	10
2001	2	2	2	2	2	0	0	2	0	0	2	2	16
2002	2	2	2	2	2	0	2	2	0	0	0	2	16
2003	2	2	2	2	0	0	2	0	0				12
Average	4	3	6	2	1	0	1	1	0	1	1	3	23
Minimum	2	0	0	0	0	0	0	0	0	0	0	0	6
Maximum	191	80	115	2	2	2	2	2	2	2	2	154	302

SWP Exports from the Sacramento-San Joaquin Delta

Table D.4 below shows the SWP Exports from the Delta for the 2015 DCR ECHO Study.

Table D.4. SWP Exports for 2015 DCR ECHO

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										85	179	344	608
1922	149	64	66	23	25	110	411	411	220	87	126	211	1,903
1923	73	162	31	37	18	52	411	399	359	88	187	204	2,021
1924	151	107	18	18	18	18	18	18	29	84	222	206	909
1925	183	71	18	25	18	18	246	85	154	85	180	218	1,303
1926	182	81	18	95	43	88	406	98	149	83	187	165	1,595
1927	129	146	47	18	43	86	406	411	234	88	190	212	2,009
1928	143	107	47	66	43	39	355	411	209	84	190	320	2,013
1929	136	137	118	45	18	18	18	18	36	82	109	191	928
1930	133	124	136	56	61	93	411	160	283	83	215	137	1,890
1931	185	136	43	18	18	18	18	18	22	66	120	225	887
1932	197	192	18	18	43	120	20	180	179	85	163	194	1,409
1933	114	138	97	45	46	18	18	18	34	79	96	224	928
1934	183	194	55	18	18	18	18	76	78	82	179	243	1,162
1935	191	146	128	18	43	141	411	315	182	86	207	300	2,167
1936	117	373	18	18	18	94	317	163	172	87	152	226	1,756
1937	164	461	412	81	18	19	237	179	181	86	189	260	2,290
1938	209	472	465	155	340	97	411	358	164	91	64	304	3,128
1939	44	142	79	57	43	52	404	155	127	85	111	252	1,550
1940	135	163	181	82	20	72	355	411	267	86	173	214	2,157
1941	182	325	212	92	97	52	411	411	291	89	64	228	2,453
1942	103	75	43	83	43	49	411	411	218	88	81	194	1,801
1943	235	85	392	88	22	22	400	411	246	88	77	311	2,376
1944	43	158	146	54	43	105	411	161	150	86	190	222	1,768
1945	193	273	18	18	18	83	332	70	177	90	190	299	1,760
1946	186	156	43	28	18	106	241	58	18	86	137	351	1,429
1947	145	144	132	79	18	18	157	18	146	85	185	163	1,291
1948	111	34	138	61	43	105	411	256	291	85	182	304	2,020
1949	149	139	96	52	43	98	169	130	208	84	171	166	1,504
1950	116	129	18	42	43	57	411	236	288	85	217	440	2,083
1951	449	308	42	18	18	18	74	268	18	67	273	174	1,727
1952	206	41	203	114	157	83	411	411	384	86	69	259	2,424
1953	50	43	43	42	18	108	411	211	18	18	18	205	1,185
1954	47	123	47	52	43	74	319	411	172	84	198	212	1,782
1955	151	138	18	63	43	50	182	124	185	82	164	420	1,621
1956	523	183	72	26	18	54	411	98	256	31	18	165	1,855
1957	43	89	47	25	21	74	329	278	206	87	184	218	1,602
1958	141	58	113	152	110	70	411	411	394	87	67	314	2,326
1959	44	139	18	42	43	95	255	24	231	84	132	150	1,257
1960	93	111	18	42	38	87	407	162	159	81	184	203	1,586
1961	190	99	136	42	37	18	267	18	154	64	195	178	1,396
1962	158	148	18	18	43	64	236	147	164	85	178	167	1,426
1963	132	43	43	18	43	92	330	411	386	86	192	320	2,098
1964	43	141	18	18	29	50	411	61	341	83	185	269	1,649
1965	396	64	43	75	32	72	376	232	18	18	214	427	1,966

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1966	49	160	142	30	43	34	293	18	153	82	184	181	1,371
1967	186	50	68	128	134	125	411	411	384	89	92	318	2,395
1968	43	112	145	55	43	18	227	149	195	84	185	240	1,497
1969	443	472	351	169	289	177	411	252	155	92	37	229	3,077
1970	473	76	49	31	43	26	133	254	18	18	310	182	1,614
1971	47	43	47	30	43	44	407	381	313	87	29	320	1,792
1972	42	104	126	92	28	92	406	395	185	85	193	231	1,979
1973	163	171	56	18	20	113	376	411	97	90	197	219	1,930
1974	187	43	47	18	19	49	411	411	378	90	21	334	2,008
1975	43	56	80	26	43	49	411	411	384	91	43	316	1,954
1976	43	144	128	42	44	42	411	90	229	83	126	124	1,505
1977	129	93	43	18	18	18	18	18	93	41	122	167	779
1978	172	181	73	107	94	50	411	411	206	84	192	299	2,281
1979	168	194	196	19	30	113	411	224	397	88	190	284	2,315
1980	443	485	268	23	29	67	23	321	105	88	88	216	2,158
1981	141	140	148	53	18	92	150	44	152	86	187	161	1,371
1982	222	204	265	364	150	53	411	411	389	112	397	472	3,451
1983	523	237	185	132	195	240	261	411	352	95	397	472	3,500
1984	373	171	79	18	18	23	104	365	18	93	204	203	1,669
1985	47	145	146	66	50	93	293	39	199	86	190	205	1,558
1986	117	472	465	106	72	51	411	411	41	92	41	302	2,580
1987	44	140	121	32	68	31	228	18	100	62	101	170	1,114
1988	132	17	43	42	18	18	118	18	79	36	189	221	932
1989	199	86	59	65	48	88	407	269	298	82	213	290	2,103
1990	177	130	70	18	43	18	112	18	109	64	80	110	949
1991	18	75	58	52	18	22	120	18	39	82	87	136	725
1992	45	81	113	42	18	18	18	18	93	18	36	210	712
1993	175	163	47	19	32	50	411	411	377	86	93	288	2,153
1994	134	137	70	37	25	50	318	92	199	81	183	201	1,526
1995	174	47	308	112	321	125	411	411	392	88	44	205	2,637
1996	44	239	173	19	28	49	411	344	263	89	127	472	2,258
1997	523	472	18	18	18	49	162	373	18	18	61	216	1,948
1998	67	472	235	114	132	179	411	411	397	94	355	190	3,057
1999	54	185	69	41	18	97	406	411	223	86	18	294	1,901
2000	47	350	87	35	18	75	331	256	18	73	33	192	1,516
2001	144	146	148	84	18	18	18	32	168	18	184	183	1,161
2002	145	139	18	42	43	96	376	61	195	81	155	221	1,573
2003	172	125	43	62	43	65	384	300	224				2,027
Average	162	164	109	56	53	67	294	227	193	78	151	245	1,798
Minimum	18	17	18	18	18	18	18	18	18	18	18	110	712
Maximum	523	485	465	364	340	240	411	411	397	112	397	472	3,500

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Individual Contractor Table A Deliveries - 2015 DCR ECHO

The tables on the following pages show the Table A deliveries for each State Water Contractor for the 2015 DCR ECHO study.

Table D.5. Alameda County FC&WCD-Zone 7: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	36	0	36	45%	1983	66	0%	82%
1923	34	1	35	43%	1969	65	1%	81%
1924	15	1	16	19%	1938	64	2%	79%
1925	35	0	35	43%	1986	60	4%	74%
1926	30	1	31	38%	1982	58	5%	72%
1927	34	0	34	42%	1980	57	6%	71%
1928	40	1	41	51%	1984	56	7%	70%
1929	14	1	15	18%	1997	54	9%	67%
1930	41	0	41	51%	1978	53	10%	65%
1931	14	1	15	18%	1937	52	11%	64%
1932	26	0	26	32%	1956	52	12%	64%
1933	15	0	15	18%	1941	51	14%	63%
1934	23	0	23	28%	1998	50	15%	63%
1935	44	0	44	54%	1943	48	16%	60%
1936	38	1	39	48%	1996	47	17%	58%
1937	51	1	52	64%	1951	47	19%	58%
1938	64	0	64	79%	1995	46	20%	57%
1939	31	2	32	40%	1999	45	21%	55%
1940	41	1	41	51%	1989	45	22%	55%
1941	50	1	51	63%	2003	44	23%	55%
1942	34	0	35	43%	1935	44	25%	54%
1943	48	0	48	60%	1973	44	26%	54%
1944	33	1	34	43%	1958	43	27%	53%
1945	37	1	38	47%	1979	43	28%	53%
1946	34	0	34	43%	1952	43	30%	53%
1947	29	1	30	37%	1964	42	31%	53%
1948	36	0	37	45%	1968	42	32%	53%
1949	32	1	33	40%	1994	41	33%	51%
1950	34	1	34	43%	1940	41	35%	51%
1951	46	0	47	58%	1928	41	36%	51%
1952	41	1	43	53%	1930	41	37%	51%
1953	32	1	33	41%	2002	40	38%	50%
1954	32	1	33	41%	1967	40	40%	50%
1955	24	1	25	31%	2000	40	41%	50%
1956	52	0	52	64%	1970	40	42%	49%
1957	26	1	27	34%	1936	39	43%	48%
1958	43	0	43	53%	1975	38	44%	47%
1959	34	1	34	43%	1945	38	46%	47%
1960	30	1	31	39%	1972	38	47%	47%
1961	30	0	31	38%	1965	38	48%	47%
1962	33	0	33	41%	1948	37	49%	45%
1963	31	1	32	39%	1922	36	51%	45%
1964	42	1	42	53%	1993	35	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	37	1	38	47%	1923	35	53%	43%
1966	32	0	32	40%	1976	35	54%	43%
1967	40	0	40	50%	1925	35	56%	43%
1968	42	1	42	53%	1942	35	57%	43%
1969	64	1	65	81%	1944	34	58%	43%
1970	40	0	40	49%	1950	34	59%	43%
1971	29	1	31	38%	1946	34	60%	43%
1972	37	0	38	47%	1959	34	62%	43%
1973	43	1	44	54%	1927	34	63%	42%
1974	32	1	33	41%	1954	33	64%	41%
1975	37	1	38	47%	1962	33	65%	41%
1976	34	1	35	43%	1953	33	67%	41%
1977	6	1	7	9%	1974	33	68%	41%
1978	53	0	53	65%	1949	33	69%	40%
1979	41	1	43	53%	1966	32	70%	40%
1980	57	1	57	71%	1939	32	72%	40%
1981	25	2	27	33%	1963	32	73%	39%
1982	58	0	58	72%	1985	32	74%	39%
1983	64	1	66	82%	1960	31	75%	39%
1984	55	1	56	70%	1926	31	77%	38%
1985	30	2	32	39%	1971	31	78%	38%
1986	59	0	60	74%	1961	31	79%	38%
1987	24	0	24	30%	1947	30	80%	37%
1988	12	0	12	15%	1957	27	81%	34%
1989	45	0	45	55%	1981	27	83%	33%
1990	20	1	21	26%	1932	26	84%	32%
1991	11	0	11	14%	1955	25	85%	31%
1992	15	0	15	18%	1987	24	86%	30%
1993	35	0	35	44%	1934	23	88%	28%
1994	40	1	41	51%	1990	21	89%	26%
1995	45	1	46	57%	2001	17	90%	21%
1996	45	1	47	58%	1924	16	91%	19%
1997	53	1	54	67%	1933	15	93%	18%
1998	49	2	50	63%	1931	15	94%	18%
1999	43	1	45	55%	1929	15	95%	18%
2000	39	1	40	50%	1992	15	96%	18%
2001	15	1	17	21%	1988	12	98%	15%
2002	40	0	40	50%	1991	11	99%	14%
2003	43	1	44	55%	1977	7	100%	9%
Average	36	1	37	46%		37		46%
Maximum	64	2	66	82%		66		82%
Minimum	6	0	7	9%		7		9%

Table D.6. Alameda County WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	19	0	19	46%	1969	35	0%	82%
1923	18	0	18	43%	1983	35	1%	82%
1924	8	0	8	18%	1938	34	2%	81%
1925	19	0	19	44%	1986	32	4%	76%
1926	16	0	16	37%	1982	31	5%	74%
1927	18	0	18	43%	1980	30	6%	72%
1928	21	0	21	51%	1984	30	7%	71%
1929	7	0	7	17%	1997	29	9%	68%
1930	22	0	22	52%	1978	28	10%	67%
1931	7	0	7	17%	1956	28	11%	66%
1932	14	0	14	32%	1937	27	12%	65%
1933	8	0	8	18%	1951	27	14%	64%
1934	12	0	12	28%	2003	27	15%	63%
1935	23	0	23	56%	1941	27	16%	63%
1936	20	0	20	48%	1998	26	17%	62%
1937	27	0	27	65%	1943	26	19%	61%
1938	34	0	34	81%	1996	24	20%	58%
1939	16	0	16	39%	1995	24	21%	58%
1940	22	0	22	52%	1989	24	22%	57%
1941	27	0	27	63%	1935	23	23%	56%
1942	18	0	18	44%	1999	23	25%	55%
1943	26	0	26	61%	1958	23	26%	55%
1944	18	0	18	42%	1973	23	27%	54%
1945	20	0	20	47%	1968	22	28%	53%
1946	18	0	18	43%	1964	22	30%	53%
1947	15	0	15	36%	1979	22	31%	53%
1948	20	0	20	46%	1952	22	32%	53%
1949	17	0	17	40%	1994	22	33%	52%
1950	18	0	18	43%	1930	22	35%	52%
1951	27	0	27	64%	1940	22	36%	52%
1952	22	0	22	53%	2002	22	37%	51%
1953	19	0	19	45%	1928	21	38%	51%
1954	17	0	17	41%	1967	21	40%	51%
1955	13	0	13	30%	1970	21	41%	50%
1956	28	0	28	66%	2000	21	42%	49%
1957	13	0	13	32%	1936	20	43%	48%
1958	23	0	23	55%	1972	20	44%	48%
1959	18	0	18	43%	1945	20	46%	47%
1960	16	0	16	38%	1975	20	47%	47%
1961	16	0	16	38%	1965	20	48%	47%
1962	18	0	18	42%	1948	20	49%	46%
1963	16	0	16	39%	1922	19	51%	46%
1964	22	0	22	53%	1993	19	52%	45%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	20	0	20	47%	1953	19	53%	45%
1966	17	0	17	41%	1925	19	54%	44%
1967	21	0	21	51%	1942	18	56%	44%
1968	22	0	22	53%	1923	18	57%	43%
1969	35	0	35	82%	1946	18	58%	43%
1970	21	0	21	50%	1950	18	59%	43%
1971	16	0	16	37%	1959	18	60%	43%
1972	20	0	20	48%	1976	18	62%	43%
1973	23	0	23	54%	1927	18	63%	43%
1974	17	0	17	41%	1944	18	64%	42%
1975	20	0	20	47%	1962	18	65%	42%
1976	18	0	18	43%	1974	17	67%	41%
1977	3	0	3	8%	1954	17	68%	41%
1978	28	0	28	67%	1966	17	69%	41%
1979	22	0	22	53%	1949	17	70%	40%
1980	30	0	30	72%	1963	16	72%	39%
1981	13	0	13	31%	1939	16	73%	39%
1982	31	0	31	74%	1960	16	74%	38%
1983	35	0	35	82%	1985	16	75%	38%
1984	30	0	30	71%	1961	16	77%	38%
1985	16	0	16	38%	1926	16	78%	37%
1986	32	0	32	76%	1971	16	79%	37%
1987	12	0	12	30%	1947	15	80%	36%
1988	6	0	6	15%	1932	14	81%	32%
1989	24	0	24	57%	1957	13	83%	32%
1990	10	0	10	25%	1981	13	84%	31%
1991	6	0	6	14%	1955	13	85%	30%
1992	8	0	8	18%	1987	12	86%	30%
1993	19	0	19	45%	1934	12	88%	28%
1994	22	0	22	52%	1990	10	89%	25%
1995	24	0	24	58%	2001	8	90%	19%
1996	24	0	24	58%	1933	8	91%	18%
1997	29	0	29	68%	1924	8	93%	18%
1998	26	0	26	62%	1992	8	94%	18%
1999	23	0	23	55%	1931	7	95%	17%
2000	21	0	21	49%	1929	7	96%	17%
2001	8	0	8	19%	1988	6	98%	15%
2002	22	0	22	51%	1991	6	99%	14%
2003	27	0	27	63%	1977	3	100%	8%
Average	19	0	19	46%		19		46%
Maximum	35	0	35	82%		35		82%
Minimum	3	0	3	8%		3		8%

Table D.7. Antelope Valley-East Kern WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	65	0	65	46%	1969	116	0%	82%
1923	61	0	61	43%	1969	116	1%	82%
1924	26	0	26	18%	1938	115	2%	81%
1925	50	0	50	36%	1982	105	4%	74%
1926	53	0	53	37%	1978	95	5%	67%
1927	61	0	61	43%	1998	88	6%	62%
1928	72	0	72	51%	1941	87	7%	62%
1929	24	0	24	17%	1943	86	9%	61%
1930	66	0	66	46%	1996	82	10%	58%
1931	24	0	24	17%	1995	81	11%	58%
1932	46	0	46	32%	1989	80	12%	57%
1933	26	0	26	18%	1935	79	14%	56%
1934	40	0	40	28%	1999	78	15%	55%
1935	79	0	79	56%	1958	78	16%	55%
1936	32	0	32	23%	1979	74	17%	53%
1937	63	0	63	44%	1952	74	19%	53%
1938	115	0	115	81%	1940	73	20%	52%
1939	52	0	52	37%	1928	72	21%	51%
1940	73	0	73	52%	1967	72	22%	51%
1941	87	0	87	62%	1973	72	23%	51%
1942	60	0	60	42%	1964	69	25%	49%
1943	86	0	86	61%	1972	67	26%	48%
1944	59	0	59	42%	1975	67	27%	47%
1945	52	0	52	37%	1986	67	28%	47%
1946	60	0	60	42%	1965	67	30%	47%
1947	23	0	23	16%	1948	66	31%	46%
1948	66	0	66	46%	1930	66	32%	46%
1949	56	0	56	40%	1980	65	33%	46%
1950	61	0	61	43%	1922	65	35%	46%
1951	52	0	52	37%	1993	64	36%	45%
1952	74	0	74	53%	1956	63	37%	45%
1953	38	0	38	27%	1937	63	38%	44%
1954	58	0	58	41%	1923	61	40%	43%
1955	43	0	43	30%	1950	61	41%	43%
1956	63	0	63	45%	1927	61	42%	43%
1957	45	0	45	32%	1942	60	43%	42%
1958	78	0	78	55%	1946	60	44%	42%
1959	27	0	27	19%	1944	59	46%	42%
1960	54	0	54	38%	1974	58	47%	41%
1961	24	0	24	17%	1954	58	48%	41%
1962	30	0	30	21%	1949	56	49%	40%
1963	56	0	56	39%	2003	56	51%	40%
1964	69	0	69	49%	1963	56	52%	39%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	67	0	67	47%	1984	55	53%	39%
1966	25	0	25	18%	1976	54	54%	38%
1967	72	0	72	51%	1960	54	56%	38%
1968	51	0	51	36%	1926	53	57%	37%
1969	116	0	116	82%	1971	52	58%	37%
1970	43	0	43	31%	1945	52	59%	37%
1971	52	0	52	37%	1985	52	60%	37%
1972	67	0	67	48%	1939	52	62%	37%
1973	72	0	72	51%	1951	52	63%	37%
1974	58	0	58	41%	1997	51	64%	36%
1975	67	0	67	47%	1968	51	65%	36%
1976	54	0	54	38%	1925	50	67%	36%
1977	11	0	11	8%	1932	46	68%	32%
1978	95	0	95	67%	1957	45	69%	32%
1979	74	0	74	53%	2002	44	70%	31%
1980	65	0	65	46%	1981	44	72%	31%
1981	44	0	44	31%	1970	43	73%	31%
1982	105	0	105	74%	1955	43	74%	30%
1983	116	0	116	82%	2000	42	75%	29%
1984	55	0	55	39%	1934	40	77%	28%
1985	52	0	52	37%	1953	38	78%	27%
1986	67	0	67	47%	1994	33	79%	23%
1987	26	0	26	19%	1936	32	80%	23%
1988	21	0	21	15%	1962	30	81%	21%
1989	80	0	80	57%	2001	27	83%	19%
1990	20	0	20	14%	1959	27	84%	19%
1991	19	0	19	14%	1987	26	85%	19%
1992	26	0	26	18%	1933	26	86%	18%
1993	64	0	64	45%	1924	26	88%	18%
1994	33	0	33	23%	1992	26	89%	18%
1995	81	0	81	58%	1966	25	90%	18%
1996	82	0	82	58%	1961	24	91%	17%
1997	51	0	51	36%	1931	24	93%	17%
1998	88	0	88	62%	1929	24	94%	17%
1999	78	0	78	55%	1947	23	95%	16%
2000	42	0	42	29%	1988	21	96%	15%
2001	27	0	27	19%	1990	20	98%	14%
2002	44	0	44	31%	1991	19	99%	14%
2003	56	0	56	40%	1977	11	100%	8%
Average	56	0	56	40%		56		40%
Maximum	116	0	116	82%		116		82%
Minimum	11	0	11	8%		11		8%

Table D.8. Castaic Lake WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	44	0	44	46%	1983	78	0%	82%
1923	41	0	41	43%	1969	77	1%	81%
1924	17	0	17	18%	1938	77	2%	81%
1925	39	0	39	41%	1986	72	4%	76%
1926	36	0	36	37%	1982	71	5%	74%
1927	41	0	41	43%	1980	67	6%	70%
1928	49	0	49	51%	1978	64	7%	67%
1929	16	0	16	17%	1997	63	9%	66%
1930	49	0	49	51%	1984	62	10%	65%
1931	16	0	16	17%	1956	62	11%	65%
1932	31	0	31	32%	1941	59	12%	62%
1933	17	0	17	18%	1998	59	14%	62%
1934	27	0	27	28%	1937	59	15%	61%
1935	53	0	53	56%	1943	58	16%	61%
1936	44	0	44	46%	1951	58	17%	61%
1937	59	0	59	61%	1996	55	19%	58%
1938	77	0	77	81%	1995	55	20%	58%
1939	35	0	35	37%	1989	54	21%	57%
1940	49	0	49	52%	1935	53	22%	56%
1941	59	0	59	62%	1958	52	23%	55%
1942	41	0	41	43%	1973	51	25%	54%
1943	58	0	58	61%	1979	50	26%	53%
1944	40	0	40	42%	1952	50	27%	53%
1945	42	0	42	45%	1999	50	28%	52%
1946	29	0	29	31%	1940	49	30%	52%
1947	33	0	33	35%	2003	49	31%	52%
1948	44	0	44	46%	1964	49	32%	51%
1949	38	0	38	40%	1928	49	33%	51%
1950	41	0	41	43%	1930	49	35%	51%
1951	58	0	58	61%	1967	48	36%	51%
1952	50	0	50	53%	1968	48	37%	50%
1953	30	0	30	32%	2002	47	38%	50%
1954	39	0	39	41%	1994	47	40%	49%
1955	29	0	29	30%	1970	46	41%	49%
1956	62	0	62	65%	1972	45	42%	48%
1957	31	0	31	32%	1975	45	43%	47%
1958	52	0	52	55%	2000	45	44%	47%
1959	39	0	39	41%	1948	44	46%	46%
1960	36	0	36	38%	1922	44	47%	46%
1961	36	0	36	38%	1936	44	48%	46%
1962	37	0	37	39%	1993	43	49%	45%
1963	37	0	37	39%	1945	42	51%	45%
1964	49	0	49	51%	1923	41	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	39	0	39	41%	1950	41	53%	43%
1966	36	0	36	38%	1942	41	54%	43%
1967	48	0	48	51%	1927	41	56%	43%
1968	48	0	48	50%	1944	40	57%	42%
1969	77	0	77	81%	1976	40	58%	42%
1970	46	0	46	49%	1925	39	59%	41%
1971	35	0	35	37%	1974	39	60%	41%
1972	45	0	45	48%	1965	39	62%	41%
1973	51	0	51	54%	1954	39	63%	41%
1974	39	0	39	41%	1959	39	64%	41%
1975	45	0	45	47%	1949	38	65%	40%
1976	40	0	40	42%	1962	37	67%	39%
1977	7	0	7	8%	1963	37	68%	39%
1978	64	0	64	67%	1966	36	69%	38%
1979	50	0	50	53%	1960	36	70%	38%
1980	67	0	67	70%	1961	36	72%	38%
1981	30	0	30	31%	1926	36	73%	37%
1982	71	0	71	74%	1971	35	74%	37%
1983	78	0	78	82%	1939	35	75%	37%
1984	62	0	62	65%	1985	34	77%	36%
1985	34	0	34	36%	1947	33	78%	35%
1986	72	0	72	76%	1932	31	79%	32%
1987	26	0	26	28%	1957	31	80%	32%
1988	14	0	14	15%	1953	30	81%	32%
1989	54	0	54	57%	1981	30	83%	31%
1990	23	0	23	25%	1946	29	84%	31%
1991	13	0	13	14%	1955	29	85%	30%
1992	16	0	16	17%	1934	27	86%	28%
1993	43	0	43	45%	1987	26	88%	28%
1994	47	0	47	49%	1990	23	89%	25%
1995	55	0	55	58%	2001	18	90%	19%
1996	55	0	55	58%	1933	17	91%	18%
1997	63	0	63	66%	1924	17	93%	18%
1998	59	0	59	62%	1992	16	94%	17%
1999	50	0	50	52%	1931	16	95%	17%
2000	45	0	45	47%	1929	16	96%	17%
2001	18	0	18	19%	1988	14	98%	15%
2002	47	0	47	50%	1991	13	99%	14%
2003	49	0	49	52%	1977	7	100%	8%
Average	43	0	43	45%		43		45%
Maximum	78	0	78	82%		78		82%
Minimum	7	0	7	8%		7		8%

Table D.9. Coachella Valley WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	64	0	64	46%	1983	112	0%	81%
1923	60	0	60	43%	1969	106	1%	76%
1924	25	0	25	18%	1938	105	2%	76%
1925	61	0	61	44%	1982	96	4%	69%
1926	52	0	52	37%	1980	93	5%	67%
1927	59	0	59	43%	1998	90	6%	65%
1928	71	0	71	51%	1978	87	7%	63%
1929	23	0	23	17%	1937	86	9%	62%
1930	72	0	72	52%	1951	85	10%	61%
1931	23	0	23	17%	1941	85	11%	61%
1932	45	0	45	32%	1943	83	12%	60%
1933	25	0	25	18%	1996	80	14%	58%
1934	39	0	39	28%	1995	80	15%	58%
1935	77	0	77	56%	1999	79	16%	57%
1936	67	0	67	48%	1979	79	17%	57%
1937	86	0	86	62%	1989	79	19%	57%
1938	104	1	105	76%	1935	77	20%	56%
1939	54	3	56	41%	1958	76	21%	55%
1940	71	0	71	52%	1952	76	22%	55%
1941	85	0	85	61%	1973	75	23%	54%
1942	60	1	61	44%	1968	74	25%	53%
1943	83	0	83	60%	1964	74	26%	53%
1944	58	2	60	43%	1994	72	27%	52%
1945	66	0	66	47%	1930	72	28%	52%
1946	42	0	42	31%	1940	71	30%	52%
1947	50	0	50	36%	2002	71	31%	51%
1948	64	0	64	46%	1928	71	32%	51%
1949	55	0	55	40%	1967	70	33%	51%
1950	60	0	60	43%	1986	67	35%	49%
1951	85	0	85	61%	1936	67	36%	48%
1952	73	3	76	55%	1972	66	37%	48%
1953	7	0	7	5%	1945	66	38%	47%
1954	57	0	57	41%	1975	66	40%	47%
1955	42	0	42	30%	1965	66	41%	47%
1956	49	0	49	35%	1948	64	42%	46%
1957	44	5	49	36%	1922	64	43%	46%
1958	76	0	76	55%	1984	62	44%	45%
1959	60	0	60	43%	1993	62	46%	45%
1960	53	0	53	38%	1925	61	47%	44%
1961	52	0	52	38%	1942	61	48%	44%
1962	58	0	58	42%	1944	60	49%	43%
1963	54	0	54	39%	1923	60	51%	43%
1964	74	0	74	53%	1950	60	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	66	0	66	47%	1959	60	53%	43%
1966	56	0	56	41%	1976	60	54%	43%
1967	70	0	70	51%	1927	59	56%	43%
1968	74	0	74	53%	1985	59	57%	43%
1969	106	0	106	76%	1962	58	58%	42%
1970	8	1	9	6%	1974	57	59%	41%
1971	51	0	51	37%	1954	57	60%	41%
1972	66	0	66	48%	1939	56	62%	41%
1973	75	0	75	54%	1966	56	63%	41%
1974	57	0	57	41%	1949	55	64%	40%
1975	66	0	66	47%	1963	54	65%	39%
1976	60	0	60	43%	1960	53	67%	38%
1977	11	0	11	8%	1961	52	68%	38%
1978	87	0	87	63%	1926	52	69%	37%
1979	73	6	79	57%	1971	51	70%	37%
1980	93	0	93	67%	1981	50	72%	36%
1981	43	7	50	36%	1947	50	73%	36%
1982	96	0	96	69%	1957	49	74%	36%
1983	106	6	112	81%	1956	49	75%	35%
1984	59	4	62	45%	1932	45	77%	32%
1985	52	7	59	43%	1946	42	78%	31%
1986	67	0	67	49%	1955	42	79%	30%
1987	41	1	42	30%	1987	42	80%	30%
1988	20	0	20	15%	1997	41	81%	30%
1989	79	0	79	57%	2003	40	83%	29%
1990	34	0	34	25%	1934	39	84%	28%
1991	19	0	19	14%	1990	34	85%	25%
1992	25	0	25	18%	2001	27	86%	19%
1993	62	0	62	45%	1933	25	88%	18%
1994	72	0	72	52%	1924	25	89%	18%
1995	80	0	80	58%	1992	25	90%	18%
1996	80	0	80	58%	1931	23	91%	17%
1997	41	0	41	30%	1929	23	93%	17%
1998	84	6	90	65%	1988	20	94%	15%
1999	76	3	79	57%	1991	19	95%	14%
2000	8	0	8	6%	1977	11	96%	8%
2001	27	0	27	19%	1970	9	98%	6%
2002	71	0	71	51%	2000	8	99%	6%
2003	40	0	40	29%	1953	7	100%	5%
Average	58	1	59	43%		59		43%
Maximum	106	7	112	81%		112		81%
Minimum	7	0	7	5%		7		5%

Table D.10. County of Kings: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	46%	1983	8	0%	82%
1923	4	0	4	43%	1938	8	1%	81%
1924	2	0	2	18%	1986	7	2%	76%
1925	2	0	2	17%	1982	7	4%	74%
1926	3	0	3	37%	1969	7	5%	72%
1927	4	0	4	43%	1978	6	6%	67%
1928	5	0	5	51%	1998	6	7%	62%
1929	2	0	2	17%	1984	6	9%	62%
1930	4	0	4	42%	1943	6	10%	61%
1931	2	0	2	17%	1996	5	11%	58%
1932	3	0	3	32%	1995	5	12%	58%
1933	2	0	2	18%	1989	5	14%	57%
1934	3	0	3	28%	1935	5	15%	56%
1935	5	0	5	56%	1941	5	16%	55%
1936	2	0	2	24%	1999	5	17%	55%
1937	3	0	3	33%	1958	5	19%	55%
1938	8	0	8	81%	1979	5	20%	53%
1939	2	0	2	16%	1952	5	21%	53%
1940	5	0	5	52%	1940	5	22%	52%
1941	5	0	5	55%	1928	5	23%	51%
1942	3	0	3	37%	1967	5	25%	51%
1943	6	0	6	61%	1956	5	26%	50%
1944	4	0	4	42%	1973	4	27%	48%
1945	2	0	2	18%	1972	4	28%	48%
1946	2	0	2	16%	1975	4	30%	47%
1947	2	0	2	25%	1965	4	31%	47%
1948	4	0	4	46%	1948	4	32%	46%
1949	4	0	4	40%	1922	4	33%	46%
1950	4	0	4	43%	1980	4	35%	45%
1951	3	0	3	32%	1993	4	36%	45%
1952	5	0	5	53%	1923	4	37%	43%
1953	2	0	2	22%	1950	4	38%	43%
1954	4	0	4	41%	1927	4	40%	43%
1955	3	0	3	30%	1997	4	41%	43%
1956	5	0	5	50%	1930	4	42%	42%
1957	3	0	3	32%	1944	4	43%	42%
1958	5	0	5	55%	1974	4	44%	41%
1959	2	0	2	16%	1954	4	46%	41%
1960	4	0	4	38%	1949	4	47%	40%
1961	4	0	4	38%	1963	4	48%	39%
1962	2	0	2	17%	1960	4	49%	38%
1963	4	0	4	39%	1961	4	51%	38%
1964	3	0	3	28%	2003	4	52%	38%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	4	0	4	47%	1926	3	53%	37%
1966	1	0	1	15%	1942	3	54%	37%
1967	5	0	5	51%	1971	3	56%	37%
1968	2	0	2	20%	1937	3	57%	33%
1969	7	0	7	72%	1932	3	58%	32%
1970	3	0	3	32%	1957	3	59%	32%
1971	3	0	3	37%	2002	3	60%	32%
1972	4	0	4	48%	1951	3	62%	32%
1973	4	0	4	48%	1970	3	63%	32%
1974	4	0	4	41%	1981	3	64%	31%
1975	4	0	4	47%	1955	3	65%	30%
1976	3	0	3	27%	1964	3	67%	28%
1977	1	0	1	8%	1934	3	68%	28%
1978	6	0	6	67%	1976	3	69%	27%
1979	5	0	5	53%	1947	2	70%	25%
1980	4	0	4	45%	2000	2	72%	25%
1981	3	0	3	31%	1990	2	73%	25%
1982	7	0	7	74%	1936	2	74%	24%
1983	8	0	8	82%	1953	2	75%	22%
1984	6	0	6	62%	1985	2	77%	20%
1985	2	0	2	20%	1968	2	78%	20%
1986	7	0	7	76%	1994	2	79%	20%
1987	1	0	1	11%	2001	2	80%	19%
1988	1	0	1	15%	1933	2	81%	18%
1989	5	0	5	57%	1924	2	83%	18%
1990	2	0	2	25%	1945	2	84%	18%
1991	1	0	1	14%	1962	2	85%	17%
1992	1	0	1	7%	1931	2	86%	17%
1993	4	0	4	45%	1929	2	88%	17%
1994	2	0	2	20%	1925	2	89%	17%
1995	5	0	5	58%	1946	2	90%	16%
1996	5	0	5	58%	1959	2	91%	16%
1997	4	0	4	43%	1939	2	93%	16%
1998	6	0	6	62%	1966	1	94%	15%
1999	5	0	5	55%	1988	1	95%	15%
2000	2	0	2	25%	1991	1	96%	14%
2001	2	0	2	19%	1987	1	98%	11%
2002	3	0	3	32%	1977	1	99%	8%
2003	4	0	4	38%	1992	1	100%	7%
Average	4	0	4	38%		4		38%
Maximum	8	0	8	82%		8		82%
Minimum	1	0	1	7%		1		7%

Table D.11. Crestline-Lake Arrowhead WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	3	0	3	46%	1983	5	0%	82%
1923	3	0	3	43%	1969	5	1%	82%
1924	1	0	1	18%	1938	5	2%	81%
1925	3	0	3	44%	1986	4	4%	76%
1926	2	0	2	37%	1982	4	5%	74%
1927	2	0	2	43%	1980	4	6%	72%
1928	3	0	3	51%	1984	4	7%	71%
1929	1	0	1	17%	1978	4	9%	67%
1930	3	0	3	52%	1956	4	10%	66%
1931	1	0	1	17%	1937	4	11%	65%
1932	2	0	2	32%	1951	4	12%	64%
1933	1	0	1	18%	1941	4	14%	63%
1934	2	0	2	28%	1998	4	15%	62%
1935	3	0	3	56%	1943	4	16%	61%
1936	3	0	3	48%	1996	3	17%	58%
1937	4	0	4	65%	1997	3	19%	58%
1938	5	0	5	81%	1995	3	20%	58%
1939	2	0	2	39%	1989	3	21%	57%
1940	3	0	3	52%	1935	3	22%	56%
1941	4	0	4	63%	1958	3	23%	55%
1942	3	0	3	44%	1973	3	25%	54%
1943	4	0	4	61%	1964	3	26%	53%
1944	2	0	2	42%	1979	3	27%	53%
1945	3	0	3	47%	1952	3	28%	53%
1946	2	0	2	28%	1994	3	30%	52%
1947	2	0	2	36%	1930	3	31%	52%
1948	3	0	3	46%	1940	3	32%	52%
1949	2	0	2	40%	2002	3	33%	51%
1950	3	0	3	43%	1928	3	35%	51%
1951	4	0	4	64%	1967	3	36%	51%
1952	3	0	3	53%	2000	3	37%	49%
1953	2	0	2	29%	1936	3	38%	48%
1954	2	0	2	41%	1999	3	40%	48%
1955	2	0	2	30%	1972	3	41%	48%
1956	4	0	4	66%	1945	3	42%	47%
1957	2	0	2	32%	1975	3	43%	47%
1958	3	0	3	55%	1948	3	44%	46%
1959	2	0	2	43%	1922	3	46%	46%
1960	2	0	2	38%	1993	3	47%	45%
1961	2	0	2	38%	1925	3	48%	44%
1962	2	0	2	42%	1942	3	49%	44%
1963	2	0	2	39%	1923	3	51%	43%
1964	3	0	3	53%	1950	3	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	36%	1959	2	53%	43%
1966	2	0	2	41%	1976	2	54%	43%
1967	3	0	3	51%	1927	2	56%	43%
1968	2	0	2	41%	1944	2	57%	42%
1969	5	0	5	82%	1962	2	58%	42%
1970	2	0	2	39%	1974	2	59%	41%
1971	2	0	2	37%	1968	2	60%	41%
1972	3	0	3	48%	1954	2	62%	41%
1973	3	0	3	54%	1966	2	63%	41%
1974	2	0	2	41%	1949	2	64%	40%
1975	3	0	3	47%	1963	2	65%	39%
1976	2	0	2	43%	1970	2	67%	39%
1977	0	0	0	8%	1939	2	68%	39%
1978	4	0	4	67%	1960	2	69%	38%
1979	3	0	3	53%	1985	2	70%	38%
1980	4	0	4	72%	1961	2	72%	38%
1981	2	0	2	31%	1926	2	73%	37%
1982	4	0	4	74%	1971	2	74%	37%
1983	5	0	5	82%	1965	2	75%	36%
1984	4	0	4	71%	1947	2	77%	36%
1985	2	0	2	38%	2003	2	78%	35%
1986	4	0	4	76%	1932	2	79%	32%
1987	2	0	2	30%	1957	2	80%	32%
1988	1	0	1	15%	1981	2	81%	31%
1989	3	0	3	57%	1955	2	83%	30%
1990	1	0	1	25%	1987	2	84%	30%
1991	1	0	1	14%	1953	2	85%	29%
1992	1	0	1	18%	1934	2	86%	28%
1993	3	0	3	45%	1946	2	88%	28%
1994	3	0	3	52%	1990	1	89%	25%
1995	3	0	3	58%	2001	1	90%	19%
1996	3	0	3	58%	1933	1	91%	18%
1997	3	0	3	58%	1924	1	93%	18%
1998	4	0	4	62%	1992	1	94%	18%
1999	3	0	3	48%	1931	1	95%	17%
2000	3	0	3	49%	1929	1	96%	17%
2001	1	0	1	19%	1988	1	98%	15%
2002	3	0	3	51%	1991	1	99%	14%
2003	2	0	2	35%	1977	0	100%	8%
Average	3	0	3	45%		3		45%
Maximum	5	0	5	82%		5		82%
Minimum	0	0	0	8%		0		8%

Table D.12. Desert WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	26	0	26	46%	1983	42	0%	76%
1923	24	0	24	43%	1969	36	1%	65%
1924	10	0	10	18%	1938	36	2%	64%
1925	25	0	25	44%	1984	35	4%	64%
1926	21	0	21	37%	1998	34	5%	62%
1927	24	0	24	43%	1979	34	6%	62%
1928	28	0	28	51%	1986	33	7%	60%
1929	9	0	9	17%	1982	33	9%	59%
1930	29	0	29	52%	1996	32	10%	58%
1931	9	0	9	17%	1995	32	11%	58%
1932	18	0	18	32%	1943	32	12%	58%
1933	10	0	10	18%	1952	32	14%	57%
1934	16	0	16	28%	1937	32	15%	57%
1935	31	0	31	56%	1980	32	16%	57%
1936	27	0	27	48%	1951	32	17%	57%
1937	32	0	32	57%	1989	32	19%	57%
1938	36	0	36	64%	1941	32	20%	57%
1939	22	1	23	41%	1935	31	21%	56%
1940	29	0	29	52%	1956	31	22%	55%
1941	32	0	32	57%	1958	31	23%	55%
1942	24	0	25	44%	1978	31	25%	55%
1943	32	0	32	58%	1973	30	26%	54%
1944	23	2	25	46%	1964	30	27%	53%
1945	26	0	26	47%	1994	29	28%	52%
1946	3	0	3	5%	1930	29	30%	52%
1947	20	0	20	36%	1940	29	31%	52%
1948	26	0	26	46%	2002	29	32%	51%
1949	22	0	22	40%	1928	28	33%	51%
1950	24	0	24	43%	1967	28	35%	51%
1951	32	0	32	57%	2000	28	36%	49%
1952	29	3	32	57%	1936	27	37%	48%
1953	3	0	3	5%	1972	27	38%	48%
1954	23	0	23	41%	1945	26	40%	47%
1955	17	0	17	30%	1975	26	41%	47%
1956	31	0	31	55%	1981	26	42%	47%
1957	18	6	24	43%	1948	26	43%	46%
1958	31	0	31	55%	1922	26	44%	46%
1959	24	0	24	43%	1944	25	46%	46%
1960	21	0	21	38%	1993	25	47%	45%
1961	21	0	21	38%	1925	25	48%	44%
1962	23	0	23	42%	1942	25	49%	44%
1963	22	0	22	39%	1985	24	51%	43%
1964	30	0	30	53%	1923	24	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	9	0	9	16%	1950	24	53%	43%
1966	23	0	23	41%	1959	24	54%	43%
1967	28	0	28	51%	1976	24	56%	43%
1968	10	0	10	18%	1927	24	57%	43%
1969	36	0	36	65%	1957	24	58%	43%
1970	3	0	4	6%	1962	23	59%	42%
1971	21	0	21	37%	1974	23	60%	41%
1972	27	0	27	48%	1954	23	62%	41%
1973	30	0	30	54%	1939	23	63%	41%
1974	23	0	23	41%	1966	23	64%	41%
1975	26	0	26	47%	1949	22	65%	40%
1976	24	0	24	43%	1963	22	67%	39%
1977	4	0	4	8%	1960	21	68%	38%
1978	31	0	31	55%	1961	21	69%	38%
1979	29	5	34	62%	1926	21	70%	37%
1980	32	0	32	57%	1971	21	72%	37%
1981	17	9	26	47%	1999	20	73%	36%
1982	33	0	33	59%	1947	20	74%	36%
1983	36	6	42	76%	1997	20	75%	36%
1984	31	4	35	64%	1932	18	77%	32%
1985	21	3	24	43%	1955	17	78%	30%
1986	33	0	33	60%	1987	17	79%	30%
1987	17	0	17	30%	1934	16	80%	28%
1988	8	0	8	15%	1990	14	81%	25%
1989	32	0	32	57%	2001	11	83%	19%
1990	14	0	14	25%	1933	10	84%	18%
1991	8	0	8	14%	1968	10	85%	18%
1992	10	0	10	18%	1924	10	86%	18%
1993	25	0	25	45%	1992	10	88%	18%
1994	29	0	29	52%	1931	9	89%	17%
1995	32	0	32	58%	1929	9	90%	17%
1996	32	0	32	58%	1965	9	91%	16%
1997	20	0	20	36%	2003	9	93%	15%
1998	32	3	34	62%	1988	8	94%	15%
1999	17	3	20	36%	1991	8	95%	14%
2000	28	0	28	49%	1977	4	96%	8%
2001	11	0	11	19%	1970	4	98%	6%
2002	29	0	29	51%	1953	3	99%	5%
2003	9	0	9	15%	1946	3	100%	5%
Average	23	1	23	42%		23		42%
Maximum	36	9	42	76%		42		76%
Minimum	3	0	3	5%		3		5%

Table D.13. Dudley Ridge WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	23	0	23	46%	1983	41	0%	82%
1923	22	0	22	43%	1938	41	1%	81%
1924	9	0	9	18%	1986	38	2%	76%
1925	15	0	15	31%	1982	37	4%	74%
1926	19	0	19	37%	1969	35	5%	70%
1927	22	0	22	43%	1978	34	6%	67%
1928	26	0	26	51%	1998	31	7%	62%
1929	8	0	8	17%	1943	31	9%	61%
1930	26	0	26	52%	1941	30	10%	59%
1931	8	0	8	16%	1996	29	11%	58%
1932	16	0	16	32%	1956	29	12%	58%
1933	9	0	9	18%	1995	29	14%	58%
1934	14	0	14	28%	1989	29	15%	57%
1935	28	0	28	56%	1935	28	16%	56%
1936	24	0	24	48%	1999	28	17%	55%
1937	26	0	26	52%	1980	28	19%	55%
1938	41	0	41	81%	1958	28	20%	55%
1939	19	0	19	39%	1973	27	21%	54%
1940	26	0	26	52%	1997	27	22%	53%
1941	30	0	30	59%	1979	26	23%	53%
1942	22	0	22	44%	1952	26	25%	53%
1943	31	0	31	61%	1951	26	26%	52%
1944	21	0	21	42%	1930	26	27%	52%
1945	17	0	17	33%	1940	26	28%	52%
1946	15	0	15	30%	1937	26	30%	52%
1947	16	0	16	32%	2002	26	31%	51%
1948	23	0	23	46%	1928	26	32%	51%
1949	16	0	16	32%	1967	26	33%	51%
1950	22	0	22	43%	1970	25	35%	50%
1951	26	0	26	52%	2000	25	36%	49%
1952	26	0	26	53%	1936	24	37%	48%
1953	22	0	22	45%	1972	24	38%	48%
1954	21	0	21	41%	1975	24	40%	47%
1955	15	0	15	30%	1965	24	41%	47%
1956	29	0	29	58%	1948	23	42%	46%
1957	16	0	16	32%	1922	23	43%	46%
1958	28	0	28	55%	1984	23	44%	45%
1959	15	0	15	30%	2003	23	46%	45%
1960	19	0	19	38%	1993	23	47%	45%
1961	16	0	16	32%	1953	22	48%	45%
1962	21	0	21	42%	1942	22	49%	44%
1963	20	0	20	39%	1923	22	51%	43%
1964	19	0	19	37%	1950	22	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	24	0	24	47%	1976	22	53%	43%
1966	16	0	16	31%	1927	22	54%	43%
1967	26	0	26	51%	1944	21	56%	42%
1968	19	0	19	37%	1962	21	57%	42%
1969	35	0	35	70%	1974	21	58%	41%
1970	25	0	25	50%	1954	21	59%	41%
1971	19	0	19	37%	1963	20	60%	39%
1972	24	0	24	48%	1939	19	62%	39%
1973	27	0	27	54%	1960	19	63%	38%
1974	21	0	21	41%	1926	19	64%	37%
1975	24	0	24	47%	1968	19	65%	37%
1976	22	0	22	43%	1964	19	67%	37%
1977	4	0	4	8%	1971	19	68%	37%
1978	34	0	34	67%	1994	18	69%	36%
1979	26	0	26	53%	1945	17	70%	33%
1980	28	0	28	55%	1932	16	72%	32%
1981	15	0	15	30%	1947	16	73%	32%
1982	37	0	37	74%	1957	16	74%	32%
1983	41	0	41	82%	1961	16	75%	32%
1984	23	0	23	45%	1949	16	77%	32%
1985	14	0	14	29%	1966	16	78%	31%
1986	38	0	38	76%	1925	15	79%	31%
1987	14	0	14	29%	1981	15	80%	30%
1988	7	0	7	14%	1946	15	81%	30%
1989	29	0	29	57%	1955	15	83%	30%
1990	12	0	12	24%	1959	15	84%	30%
1991	7	0	7	13%	1987	14	85%	29%
1992	9	0	9	18%	1985	14	86%	29%
1993	23	0	23	45%	1934	14	88%	28%
1994	18	0	18	36%	1990	12	89%	24%
1995	29	0	29	58%	2001	10	90%	19%
1996	29	0	29	58%	1933	9	91%	18%
1997	27	0	27	53%	1924	9	93%	18%
1998	31	0	31	62%	1992	9	94%	18%
1999	28	0	28	55%	1929	8	95%	17%
2000	25	0	25	49%	1931	8	96%	16%
2001	10	0	10	19%	1988	7	98%	14%
2002	26	0	26	51%	1991	7	99%	13%
2003	23	0	23	45%	1977	4	100%	8%
Average	22	0	22	43%		22		43%
Maximum	41	0	41	82%		41		82%
Minimum	4	0	4	8%		4		8%

Table D.14. Empire West Side ID: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1	0	1	46%	1969	2	0%	82%
1923	1	0	1	43%	1969	2	1%	82%
1924	0	0	0	15%	1938	2	2%	81%
1925	1	0	1	44%	1986	2	4%	76%
1926	1	0	1	37%	1982	1	5%	74%
1927	1	0	1	43%	1980	1	6%	68%
1928	1	0	1	51%	1978	1	7%	67%
1929	0	0	0	14%	1984	1	9%	66%
1930	1	0	1	49%	1937	1	10%	65%
1931	0	0	0	11%	1997	1	11%	64%
1932	1	0	1	32%	1941	1	12%	63%
1933	0	0	0	18%	1998	1	14%	62%
1934	0	0	0	23%	1956	1	15%	62%
1935	1	0	1	56%	1943	1	16%	61%
1936	1	0	1	48%	1996	1	17%	58%
1937	1	0	1	65%	1995	1	19%	58%
1938	2	0	2	81%	1989	1	20%	57%
1939	1	0	1	39%	1935	1	21%	56%
1940	1	0	1	52%	1999	1	22%	55%
1941	1	0	1	63%	1958	1	23%	55%
1942	1	0	1	44%	1968	1	25%	53%
1943	1	0	1	61%	1964	1	26%	53%
1944	1	0	1	42%	1979	1	27%	53%
1945	1	0	1	47%	1952	1	28%	53%
1946	1	0	1	43%	1940	1	30%	52%
1947	0	0	0	24%	1928	1	31%	51%
1948	1	0	1	46%	1967	1	32%	51%
1949	1	0	1	40%	1973	1	33%	51%
1950	1	0	1	43%	1951	1	35%	51%
1951	1	0	1	51%	1930	1	36%	49%
1952	1	0	1	53%	1936	1	37%	48%
1953	1	0	1	35%	2002	1	38%	48%
1954	1	0	1	41%	2003	1	40%	48%
1955	1	0	1	30%	1972	1	41%	48%
1956	1	0	1	62%	1945	1	42%	47%
1957	1	0	1	32%	1975	1	43%	47%
1958	1	0	1	55%	1965	1	44%	47%
1959	1	0	1	27%	1970	1	46%	47%
1960	1	0	1	38%	1948	1	47%	46%
1961	1	0	1	38%	1922	1	48%	46%
1962	1	0	1	42%	1993	1	49%	45%
1963	1	0	1	39%	1925	1	51%	44%
1964	1	0	1	53%	1942	1	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	47%	1923	1	53%	43%
1966	1	0	1	26%	1946	1	54%	43%
1967	1	0	1	51%	1950	1	56%	43%
1968	1	0	1	53%	1976	1	57%	43%
1969	2	0	2	82%	1927	1	58%	43%
1970	1	0	1	47%	1944	1	59%	42%
1971	1	0	1	37%	1962	1	60%	42%
1972	1	0	1	48%	1974	1	62%	41%
1973	1	0	1	51%	1954	1	63%	41%
1974	1	0	1	41%	1949	1	64%	40%
1975	1	0	1	47%	2000	1	65%	39%
1976	1	0	1	43%	1963	1	67%	39%
1977	0	0	0	8%	1939	1	68%	39%
1978	1	0	1	67%	1960	1	69%	38%
1979	1	0	1	53%	1985	1	70%	38%
1980	1	0	1	68%	1961	1	72%	38%
1981	0	0	0	21%	1926	1	73%	37%
1982	1	0	1	74%	1971	1	74%	37%
1983	2	0	2	82%	1953	1	75%	35%
1984	1	0	1	66%	1994	1	77%	33%
1985	1	0	1	38%	1932	1	78%	32%
1986	2	0	2	76%	1957	1	79%	32%
1987	0	0	0	20%	1955	1	80%	30%
1988	0	0	0	10%	1959	1	81%	27%
1989	1	0	1	57%	1966	1	83%	26%
1990	0	0	0	16%	1947	0	84%	24%
1991	0	0	0	9%	1934	0	85%	23%
1992	0	0	0	12%	1981	0	86%	21%
1993	1	0	1	45%	1987	0	88%	20%
1994	1	0	1	33%	2001	0	89%	19%
1995	1	0	1	58%	1933	0	90%	18%
1996	1	0	1	58%	1990	0	91%	16%
1997	1	0	1	64%	1924	0	93%	15%
1998	1	0	1	62%	1929	0	94%	14%
1999	1	0	1	55%	1992	0	95%	12%
2000	1	0	1	39%	1931	0	96%	11%
2001	0	0	0	19%	1988	0	98%	10%
2002	1	0	1	48%	1991	0	99%	9%
2003	1	0	1	48%	1977	0	100%	8%
Average	1	0	1	44%		1		44%
Maximum	2	0	2	82%		2		82%
Minimum	0	0	0	8%		0		8%

Table D.15. Kern County WA-AG: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	390	0	390	46%	1983	697	0%	82%
1923	367	0	367	43%	1938	688	1%	81%
1924	149	0	149	18%	1969	682	2%	80%
1925	240	0	240	28%	1982	631	4%	74%
1926	310	0	310	37%	1986	603	5%	71%
1927	364	0	364	43%	1978	571	6%	67%
1928	433	0	433	51%	1998	530	7%	62%
1929	137	0	137	16%	1943	519	9%	61%
1930	397	0	397	47%	1941	516	10%	61%
1931	133	0	133	16%	1996	492	11%	58%
1932	274	0	274	32%	1995	489	12%	58%
1933	155	0	155	18%	1989	482	14%	57%
1934	232	0	232	27%	1935	474	15%	56%
1935	474	0	474	56%	1956	473	16%	56%
1936	236	0	236	28%	1958	466	17%	55%
1937	421	0	421	50%	1980	463	19%	55%
1938	688	0	688	81%	1999	455	20%	54%
1939	254	0	254	30%	1984	451	21%	53%
1940	393	0	393	46%	1979	446	22%	53%
1941	516	0	516	61%	1952	446	23%	53%
1942	340	0	340	40%	1928	433	25%	51%
1943	519	0	519	61%	1967	432	26%	51%
1944	313	0	313	37%	1997	429	27%	51%
1945	279	0	279	33%	1937	421	28%	50%
1946	231	0	231	27%	1973	406	30%	48%
1947	138	0	138	16%	1972	404	31%	48%
1948	394	0	394	46%	1975	402	32%	47%
1949	275	0	275	32%	1930	397	33%	47%
1950	366	0	366	43%	1965	396	35%	47%
1951	277	0	277	33%	1948	394	36%	46%
1952	446	0	446	53%	1940	393	37%	46%
1953	262	0	262	31%	1922	390	38%	46%
1954	348	0	348	41%	1964	387	40%	46%
1955	255	0	255	30%	1993	381	41%	45%
1956	473	0	473	56%	1923	367	42%	43%
1957	272	0	272	32%	1950	366	43%	43%
1958	466	0	466	55%	1927	364	44%	43%
1959	156	0	156	18%	2003	357	46%	42%
1960	314	0	314	37%	1974	349	47%	41%
1961	188	0	188	22%	1954	348	48%	41%
1962	157	0	157	18%	1942	340	49%	40%
1963	333	0	333	39%	1963	333	51%	39%
1964	387	0	387	46%	1976	321	52%	38%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	396	0	396	47%	1960	314	53%	37%
1966	240	0	240	28%	1971	314	54%	37%
1967	432	0	432	51%	1944	313	56%	37%
1968	259	0	259	31%	1926	310	57%	37%
1969	682	0	682	80%	1970	292	58%	34%
1970	292	0	292	34%	1945	279	59%	33%
1971	314	0	314	37%	1951	277	60%	33%
1972	404	0	404	48%	1949	275	62%	32%
1973	406	0	406	48%	1932	274	63%	32%
1974	349	0	349	41%	1957	272	64%	32%
1975	402	0	402	47%	2002	269	65%	32%
1976	321	0	321	38%	1953	262	67%	31%
1977	65	0	65	8%	1968	259	68%	31%
1978	571	0	571	67%	1955	255	69%	30%
1979	446	0	446	53%	1939	254	70%	30%
1980	463	0	463	55%	1925	240	72%	28%
1981	146	0	146	17%	1966	240	73%	28%
1982	631	0	631	74%	1994	238	74%	28%
1983	697	0	697	82%	2000	236	75%	28%
1984	451	0	451	53%	1936	236	77%	28%
1985	192	0	192	23%	1934	232	78%	27%
1986	603	0	603	71%	1946	231	79%	27%
1987	156	0	156	18%	1985	192	80%	23%
1988	116	0	116	14%	1961	188	81%	22%
1989	482	0	482	57%	2001	163	83%	19%
1990	129	0	129	15%	1962	157	84%	18%
1991	109	0	109	13%	1959	156	85%	18%
1992	133	0	133	16%	1987	156	86%	18%
1993	381	0	381	45%	1933	155	88%	18%
1994	238	0	238	28%	1924	149	89%	18%
1995	489	0	489	58%	1981	146	90%	17%
1996	492	0	492	58%	1947	138	91%	16%
1997	429	0	429	51%	1929	137	93%	16%
1998	530	0	530	62%	1992	133	94%	16%
1999	455	0	455	54%	1931	133	95%	16%
2000	236	0	236	28%	1990	129	96%	15%
2001	163	0	163	19%	1988	116	98%	14%
2002	269	0	269	32%	1991	109	99%	13%
2003	357	0	357	42%	1977	65	100%	8%
Average	338	0	338	40%		338		40%
Maximum	697	0	697	82%		697		82%
Minimum	65	0	65	8%		65		8%

Table D.16. Kern County WA-MI: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	62	0	62	46%	1969	111	0%	82%
1923	58	0	58	43%	1969	111	1%	82%
1924	24	0	24	18%	1938	109	2%	81%
1925	32	0	32	24%	1982	100	4%	74%
1926	50	0	50	37%	1978	91	5%	67%
1927	58	0	58	43%	1986	89	6%	66%
1928	69	0	69	51%	1941	85	7%	63%
1929	23	0	23	17%	1984	84	9%	63%
1930	67	0	67	50%	1998	84	10%	62%
1931	23	0	23	17%	1943	82	11%	61%
1932	44	0	44	32%	1996	78	12%	58%
1933	25	0	25	18%	1995	78	14%	58%
1934	38	0	38	28%	1980	76	15%	56%
1935	75	0	75	56%	1935	75	16%	56%
1936	56	0	56	42%	1999	74	17%	55%
1937	58	0	58	43%	1958	74	19%	55%
1938	109	0	109	81%	1973	72	20%	54%
1939	33	0	33	25%	1956	72	21%	53%
1940	70	0	70	52%	1979	71	22%	53%
1941	85	0	85	63%	1952	71	23%	53%
1942	58	0	58	43%	1989	70	25%	52%
1943	82	0	82	61%	1940	70	26%	52%
1944	57	0	57	42%	1928	69	27%	51%
1945	35	0	35	26%	1967	69	28%	51%
1946	32	0	32	24%	1930	67	30%	50%
1947	26	0	26	19%	1972	64	31%	48%
1948	63	0	63	46%	1975	64	32%	47%
1949	29	0	29	21%	1965	64	33%	47%
1950	58	0	58	43%	1948	63	35%	46%
1951	59	0	59	44%	1922	62	36%	46%
1952	71	0	71	53%	1997	61	37%	45%
1953	38	0	38	28%	1993	61	38%	45%
1954	55	0	55	41%	1951	59	40%	44%
1955	40	0	40	30%	1923	58	41%	43%
1956	72	0	72	53%	1950	58	42%	43%
1957	43	0	43	32%	1937	58	43%	43%
1958	74	0	74	55%	1927	58	44%	43%
1959	32	0	32	24%	1942	58	46%	43%
1960	31	0	31	23%	1964	57	47%	42%
1961	27	0	27	20%	1944	57	48%	42%
1962	14	0	14	10%	1936	56	49%	42%
1963	53	0	53	39%	1974	55	51%	41%
1964	57	0	57	42%	1954	55	52%	41%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	64	0	64	47%	2003	54	53%	40%
1966	30	0	30	22%	1963	53	54%	39%
1967	69	0	69	51%	1985	51	56%	38%
1968	40	0	40	30%	1926	50	57%	37%
1969	111	0	111	82%	1976	50	58%	37%
1970	48	0	48	36%	1971	50	59%	37%
1971	50	0	50	37%	2002	49	60%	36%
1972	64	0	64	48%	1970	48	62%	36%
1973	72	0	72	54%	2000	47	63%	35%
1974	55	0	55	41%	1932	44	64%	32%
1975	64	0	64	47%	1957	43	65%	32%
1976	50	0	50	37%	1981	42	67%	31%
1977	10	0	10	8%	1955	40	68%	30%
1978	91	0	91	67%	1968	40	69%	30%
1979	71	0	71	53%	1994	39	70%	29%
1980	76	0	76	56%	1953	38	72%	28%
1981	42	0	42	31%	1934	38	73%	28%
1982	100	0	100	74%	1945	35	74%	26%
1983	111	0	111	82%	1939	33	75%	25%
1984	84	0	84	63%	1925	32	77%	24%
1985	51	0	51	38%	1946	32	78%	24%
1986	89	0	89	66%	1959	32	79%	24%
1987	21	0	21	16%	1960	31	80%	23%
1988	20	0	20	15%	1966	30	81%	22%
1989	70	0	70	52%	1949	29	83%	21%
1990	18	0	18	13%	1961	27	84%	20%
1991	18	0	18	14%	1947	26	85%	19%
1992	9	0	9	7%	2001	26	86%	19%
1993	61	0	61	45%	1933	25	88%	18%
1994	39	0	39	29%	1924	24	89%	18%
1995	78	0	78	58%	1931	23	90%	17%
1996	78	0	78	58%	1929	23	91%	17%
1997	61	0	61	45%	1987	21	93%	16%
1998	84	0	84	62%	1988	20	94%	15%
1999	74	0	74	55%	1991	18	95%	14%
2000	47	0	47	35%	1990	18	96%	13%
2001	26	0	26	19%	1962	14	98%	10%
2002	49	0	49	36%	1977	10	99%	8%
2003	54	0	54	40%	1992	9	100%	7%
Average	54	0	54	40%		54		40%
Maximum	111	0	111	82%		111		82%
Minimum	9	0	9	7%		9		7%

Table D.17. Littlerock Creek ID: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1	0	1	46%	1969	2	0%	82%
1923	1	0	1	43%	1969	2	1%	82%
1924	0	0	0	18%	1938	2	2%	81%
1925	1	0	1	24%	1986	2	4%	76%
1926	1	0	1	37%	1982	2	5%	74%
1927	1	0	1	43%	1978	2	6%	67%
1928	1	0	1	51%	1984	2	7%	67%
1929	0	0	0	17%	1956	2	9%	66%
1930	1	0	1	47%	1998	1	10%	62%
1931	0	0	0	17%	1943	1	11%	61%
1932	1	0	1	32%	1941	1	12%	60%
1933	0	0	0	18%	1996	1	14%	58%
1934	1	0	1	28%	1995	1	15%	58%
1935	1	0	1	56%	1980	1	16%	57%
1936	1	0	1	33%	1935	1	17%	56%
1937	1	0	1	42%	1999	1	19%	55%
1938	2	0	2	81%	1958	1	20%	55%
1939	1	0	1	25%	1997	1	21%	54%
1940	1	0	1	52%	1979	1	22%	53%
1941	1	0	1	60%	1952	1	23%	53%
1942	1	0	1	41%	1940	1	25%	52%
1943	1	0	1	61%	1973	1	26%	52%
1944	1	0	1	42%	1989	1	27%	51%
1945	1	0	1	26%	1928	1	28%	51%
1946	1	0	1	30%	1967	1	30%	51%
1947	1	0	1	29%	1972	1	31%	48%
1948	1	0	1	46%	1975	1	32%	47%
1949	1	0	1	40%	1930	1	33%	47%
1950	1	0	1	43%	1948	1	35%	46%
1951	1	0	1	44%	1922	1	36%	46%
1952	1	0	1	53%	1993	1	37%	45%
1953	1	0	1	31%	1951	1	38%	44%
1954	1	0	1	41%	1923	1	40%	43%
1955	1	0	1	30%	1950	1	41%	43%
1956	2	0	2	66%	1927	1	42%	43%
1957	1	0	1	32%	1944	1	43%	42%
1958	1	0	1	55%	1937	1	44%	42%
1959	1	0	1	25%	2003	1	46%	42%
1960	1	0	1	38%	2002	1	47%	41%
1961	1	0	1	38%	1974	1	48%	41%
1962	1	0	1	29%	1954	1	49%	41%
1963	1	0	1	39%	1942	1	51%	41%
1964	1	0	1	39%	1970	1	52%	41%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	38%	1949	1	53%	40%
1966	1	0	1	23%	1963	1	54%	39%
1967	1	0	1	51%	1964	1	56%	39%
1968	1	0	1	30%	1965	1	57%	38%
1969	2	0	2	82%	1960	1	58%	38%
1970	1	0	1	41%	1961	1	59%	38%
1971	1	0	1	37%	1926	1	60%	37%
1972	1	0	1	48%	1971	1	62%	37%
1973	1	0	1	52%	1976	1	63%	35%
1974	1	0	1	41%	2000	1	64%	34%
1975	1	0	1	47%	1936	1	65%	33%
1976	1	0	1	35%	1932	1	67%	32%
1977	0	0	0	8%	1957	1	68%	32%
1978	2	0	2	67%	1981	1	69%	31%
1979	1	0	1	53%	1953	1	70%	31%
1980	1	0	1	57%	1968	1	72%	30%
1981	1	0	1	31%	1946	1	73%	30%
1982	2	0	2	74%	1955	1	74%	30%
1983	2	0	2	82%	1994	1	75%	30%
1984	2	0	2	67%	1947	1	77%	29%
1985	1	0	1	27%	1962	1	78%	29%
1986	2	0	2	76%	1934	1	79%	28%
1987	0	0	0	16%	1985	1	80%	27%
1988	0	0	0	15%	1945	1	81%	26%
1989	1	0	1	51%	1939	1	83%	25%
1990	1	0	1	25%	1990	1	84%	25%
1991	0	0	0	14%	1959	1	85%	25%
1992	0	0	0	18%	1925	1	86%	24%
1993	1	0	1	45%	1966	1	88%	23%
1994	1	0	1	30%	2001	0	89%	19%
1995	1	0	1	58%	1933	0	90%	18%
1996	1	0	1	58%	1924	0	91%	18%
1997	1	0	1	54%	1992	0	93%	18%
1998	1	0	1	62%	1931	0	94%	17%
1999	1	0	1	55%	1929	0	95%	17%
2000	1	0	1	34%	1987	0	96%	16%
2001	0	0	0	19%	1988	0	98%	15%
2002	1	0	1	41%	1991	0	99%	14%
2003	1	0	1	42%	1977	0	100%	8%
Average	1	0	1	41%		1		41%
Maximum	2	0	2	82%		2		82%
Minimum	0	0	0	8%		0		8%

Table D.18. Metropolitan WDSC: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	878	0	878	46%	1983	1,533	0%	80%
1923	826	0	826	43%	1969	1,398	1%	73%
1924	347	0	347	18%	1938	1,382	2%	72%
1925	844	0	844	44%	1982	1,273	4%	67%
1926	717	0	717	37%	1998	1,236	5%	65%
1927	821	0	821	43%	1984	1,229	6%	64%
1928	964	0	964	50%	1978	1,171	7%	61%
1929	320	0	320	17%	1937	1,135	9%	59%
1930	974	0	974	51%	1941	1,128	10%	59%
1931	321	0	321	17%	1979	1,121	11%	59%
1932	618	0	618	32%	1995	1,102	12%	58%
1933	350	0	350	18%	2003	1,092	14%	57%
1934	540	0	540	28%	1989	1,085	15%	57%
1935	1,068	0	1,068	56%	1999	1,074	16%	56%
1936	921	0	921	48%	1935	1,068	17%	56%
1937	1,135	0	1,135	59%	1952	1,067	19%	56%
1938	1,374	8	1,382	72%	1943	1,051	20%	55%
1939	740	38	779	41%	1958	1,050	21%	55%
1940	988	0	988	52%	1986	1,047	22%	55%
1941	1,128	0	1,128	59%	1973	1,011	23%	53%
1942	835	8	843	44%	1964	1,011	25%	53%
1943	1,051	0	1,051	55%	1968	1,002	26%	52%
1944	804	34	838	44%	1996	997	27%	52%
1945	903	0	903	47%	1980	995	28%	52%
1946	747	0	747	39%	1940	988	30%	52%
1947	676	0	676	35%	1930	974	31%	51%
1948	888	0	888	46%	1967	973	32%	51%
1949	762	0	762	40%	1951	970	33%	51%
1950	825	0	825	43%	1928	964	35%	50%
1951	970	0	970	51%	1997	964	36%	50%
1952	1,005	62	1,067	56%	1956	944	37%	49%
1953	713	0	713	37%	2002	932	38%	49%
1954	784	0	784	41%	1936	921	40%	48%
1955	575	0	575	30%	1972	910	41%	48%
1956	944	0	944	49%	1975	907	42%	47%
1957	614	101	715	37%	1945	903	43%	47%
1958	1,050	0	1,050	55%	1994	892	44%	47%
1959	761	0	761	40%	1948	888	46%	46%
1960	727	0	727	38%	1922	878	47%	46%
1961	723	0	723	38%	1965	867	48%	45%
1962	798	0	798	42%	1993	860	49%	45%
1963	751	0	751	39%	1925	844	51%	44%
1964	1,011	0	1,011	53%	1942	843	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	867	0	867	45%	1944	838	53%	44%
1966	762	0	762	40%	1985	828	54%	43%
1967	973	0	973	51%	1923	826	56%	43%
1968	1,002	0	1,002	52%	1950	825	57%	43%
1969	1,398	0	1,398	73%	1976	823	58%	43%
1970	803	8	811	42%	1927	821	59%	43%
1971	707	0	707	37%	1970	811	60%	42%
1972	910	0	910	48%	1962	798	62%	42%
1973	1,011	0	1,011	53%	1974	786	63%	41%
1974	786	0	786	41%	1954	784	64%	41%
1975	907	0	907	47%	1939	779	65%	41%
1976	823	0	823	43%	1966	762	67%	40%
1977	147	0	147	8%	1949	762	68%	40%
1978	1,171	0	1,171	61%	1959	761	69%	40%
1979	1,006	114	1,121	59%	2000	754	70%	39%
1980	995	0	995	52%	1963	751	72%	39%
1981	596	145	741	39%	1946	747	73%	39%
1982	1,273	0	1,273	67%	1981	741	74%	39%
1983	1,406	127	1,533	80%	1960	727	75%	38%
1984	1,155	74	1,229	64%	1961	723	77%	38%
1985	724	103	828	43%	1926	717	78%	37%
1986	1,047	0	1,047	55%	1957	715	79%	37%
1987	566	8	574	30%	1953	713	80%	37%
1988	278	0	278	15%	1971	707	81%	37%
1989	1,085	0	1,085	57%	1947	676	83%	35%
1990	470	0	470	25%	1932	618	84%	32%
1991	262	0	262	14%	1955	575	85%	30%
1992	347	0	347	18%	1987	574	86%	30%
1993	860	0	860	45%	1934	540	88%	28%
1994	892	0	892	47%	1990	470	89%	25%
1995	1,102	0	1,102	58%	2001	367	90%	19%
1996	997	0	997	52%	1933	350	91%	18%
1997	964	0	964	50%	1924	347	93%	18%
1998	1,144	92	1,236	65%	1992	347	94%	18%
1999	1,023	51	1,074	56%	1931	321	95%	17%
2000	754	0	754	39%	1929	320	96%	17%
2001	367	0	367	19%	1988	278	98%	15%
2002	932	0	932	49%	1991	262	99%	14%
2003	1,092	0	1,092	57%	1977	147	100%	8%
Average	834	12	846	44%		846		44%
Maximum	1,406	145	1,533	80%		1,533		80%
Minimum	147	0	147	8%		147		8%

Table D.19. Mojave WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	38	0	38	46%	1969	68	0%	82%
1923	36	0	36	43%	1983	68	1%	82%
1924	15	0	15	18%	1938	67	2%	81%
1925	37	0	37	44%	1986	63	4%	76%
1926	31	0	31	37%	1982	62	5%	74%
1927	36	0	36	43%	1980	60	6%	72%
1928	42	0	42	51%	1978	56	7%	67%
1929	14	0	14	17%	1956	55	9%	66%
1930	43	0	43	52%	1937	54	10%	65%
1931	14	0	14	17%	1951	53	11%	64%
1932	27	0	27	32%	1941	52	12%	63%
1933	15	0	15	18%	1998	52	14%	62%
1934	23	0	23	28%	1943	51	15%	61%
1935	46	0	46	56%	1996	48	16%	58%
1936	40	0	40	48%	1995	48	17%	58%
1937	54	0	54	65%	1989	47	19%	57%
1938	67	0	67	81%	1935	46	20%	56%
1939	32	0	32	39%	1999	46	21%	55%
1940	43	0	43	52%	1958	45	22%	55%
1941	52	0	52	63%	1973	45	23%	54%
1942	36	0	36	44%	1964	44	25%	53%
1943	51	0	51	61%	2003	44	26%	53%
1944	35	0	35	42%	1979	44	27%	53%
1945	39	0	39	47%	1952	44	28%	53%
1946	26	0	26	32%	1994	43	30%	52%
1947	30	0	30	36%	1930	43	31%	52%
1948	38	0	38	46%	1940	43	32%	52%
1949	33	0	33	40%	2002	43	33%	51%
1950	36	0	36	43%	1928	42	35%	51%
1951	53	0	53	64%	1967	42	36%	51%
1952	44	0	44	53%	2000	41	37%	49%
1953	27	0	27	33%	1997	40	38%	49%
1954	34	0	34	41%	1936	40	40%	48%
1955	25	0	25	30%	1972	39	41%	48%
1956	55	0	55	66%	1945	39	42%	47%
1957	27	0	27	32%	1975	39	43%	47%
1958	45	0	45	55%	1948	38	44%	46%
1959	36	0	36	43%	1922	38	46%	46%
1960	31	0	31	38%	1984	38	47%	46%
1961	31	0	31	38%	1968	38	48%	46%
1962	35	0	35	42%	1993	37	49%	45%
1963	33	0	33	39%	1925	37	51%	44%
1964	44	0	44	53%	1942	36	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	34	0	34	40%	1923	36	53%	43%
1966	34	0	34	41%	1950	36	54%	43%
1967	42	0	42	51%	1959	36	56%	43%
1968	38	0	38	46%	1976	36	57%	43%
1969	68	0	68	82%	1927	36	58%	43%
1970	31	0	31	38%	1944	35	59%	42%
1971	31	0	31	37%	1962	35	60%	42%
1972	39	0	39	48%	1974	34	62%	41%
1973	45	0	45	54%	1954	34	63%	41%
1974	34	0	34	41%	1966	34	64%	41%
1975	39	0	39	47%	1965	34	65%	40%
1976	36	0	36	43%	1949	33	67%	40%
1977	6	0	6	8%	1963	33	68%	39%
1978	56	0	56	67%	1939	32	69%	39%
1979	44	0	44	53%	1960	31	70%	38%
1980	60	0	60	72%	1970	31	72%	38%
1981	26	0	26	31%	1985	31	73%	38%
1982	62	0	62	74%	1961	31	74%	38%
1983	68	0	68	82%	1926	31	75%	37%
1984	38	0	38	46%	1971	31	77%	37%
1985	31	0	31	38%	1947	30	78%	36%
1986	63	0	63	76%	1953	27	79%	33%
1987	25	0	25	30%	1932	27	80%	32%
1988	12	0	12	15%	1957	27	81%	32%
1989	47	0	47	57%	1946	26	83%	32%
1990	20	0	20	25%	1981	26	84%	31%
1991	11	0	11	14%	1955	25	85%	30%
1992	15	0	15	18%	1987	25	86%	30%
1993	37	0	37	45%	1934	23	88%	28%
1994	43	0	43	52%	1990	20	89%	25%
1995	48	0	48	58%	2001	16	90%	19%
1996	48	0	48	58%	1933	15	91%	18%
1997	40	0	40	49%	1924	15	93%	18%
1998	52	0	52	62%	1992	15	94%	18%
1999	46	0	46	55%	1931	14	95%	17%
2000	41	0	41	49%	1929	14	96%	17%
2001	16	0	16	19%	1988	12	98%	15%
2002	43	0	43	51%	1991	11	99%	14%
2003	44	0	44	53%	1977	6	100%	8%
Average	37	0	37	45%		37		45%
Maximum	68	0	68	82%		68		82%
Minimum	6	0	6	8%		6		8%

Table D.20. Napa County FC&WCD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	100%	1963	29	0%	100%
1923	27	0	27	94%	1963	29	1%	100%
1924	10	0	10	33%	1963	29	2%	100%
1925	20	0	20	68%	1963	29	4%	100%
1926	20	0	20	68%	1922	29	5%	100%
1927	29	0	29	99%	1922	29	6%	100%
1928	29	0	29	99%	1922	29	7%	100%
1929	10	0	10	33%	1922	29	9%	100%
1930	20	0	20	68%	1922	29	10%	100%
1931	10	0	10	33%	1922	29	11%	100%
1932	10	0	10	33%	1938	29	12%	100%
1933	10	0	10	33%	1938	29	14%	100%
1934	10	0	10	33%	1938	29	15%	100%
1935	20	0	20	68%	1938	29	16%	100%
1936	27	0	27	94%	1942	29	17%	100%
1937	20	0	20	68%	1942	29	19%	100%
1938	29	0	29	100%	1942	29	20%	100%
1939	27	0	27	94%	1942	29	21%	100%
1940	29	0	29	99%	1942	29	22%	100%
1941	29	0	29	100%	1942	29	23%	100%
1942	29	0	29	100%	1942	29	25%	100%
1943	29	0	29	100%	1942	29	26%	100%
1944	20	0	20	68%	1942	29	27%	100%
1945	27	0	27	94%	1942	29	28%	100%
1946	29	0	29	99%	1942	29	30%	100%
1947	20	0	20	68%	1942	29	31%	100%
1948	27	0	27	94%	2003	29	32%	99%
1949	20	0	20	68%	1928	29	33%	99%
1950	20	0	20	68%	1928	29	35%	99%
1951	29	0	29	99%	1928	29	36%	99%
1952	29	0	29	100%	1927	29	37%	99%
1953	29	0	29	100%	1927	29	38%	99%
1954	29	0	29	99%	1927	29	40%	99%
1955	20	0	20	68%	1927	29	41%	99%
1956	29	0	29	100%	1927	29	42%	99%
1957	29	0	29	99%	1927	29	43%	99%
1958	29	0	29	100%	1954	29	44%	99%
1959	27	0	27	94%	1954	29	46%	99%
1960	20	0	20	68%	1954	29	47%	99%
1961	20	0	20	68%	1923	27	48%	94%
1962	27	0	27	94%	1923	27	49%	94%
1963	29	0	29	100%	1923	27	51%	94%
1964	20	0	20	68%	1923	27	52%	94%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	100%	1923	27	53%	94%
1966	27	0	27	94%	1923	27	54%	94%
1967	29	0	29	100%	1923	27	56%	94%
1968	27	0	27	94%	1936	27	57%	94%
1969	29	0	29	100%	1936	27	58%	94%
1970	29	0	29	100%	1936	27	59%	94%
1971	29	0	29	100%	1936	27	60%	94%
1972	27	0	27	94%	1925	20	62%	68%
1973	29	0	29	99%	1925	20	63%	68%
1974	29	0	29	100%	1925	20	64%	68%
1975	29	0	29	100%	1925	20	65%	68%
1976	20	0	20	68%	1925	20	67%	68%
1977	10	0	10	33%	1925	20	68%	68%
1978	29	0	29	99%	1925	20	69%	68%
1979	20	0	20	68%	1925	20	70%	68%
1980	29	0	29	99%	1925	20	72%	68%
1981	20	0	20	68%	1926	20	73%	68%
1982	29	0	29	100%	1926	20	74%	68%
1983	29	0	29	100%	1926	20	75%	68%
1984	29	0	29	100%	1926	20	77%	68%
1985	27	0	27	94%	1937	20	78%	68%
1986	29	0	29	100%	1937	20	79%	68%
1987	20	0	20	68%	1937	20	80%	68%
1988	10	0	10	33%	1937	20	81%	68%
1989	20	0	20	68%	1937	20	83%	68%
1990	10	0	10	33%	1937	20	84%	68%
1991	10	0	10	33%	1937	20	85%	68%
1992	10	0	10	33%	1924	10	86%	33%
1993	29	0	29	99%	1924	10	88%	33%
1994	10	0	10	33%	1924	10	89%	33%
1995	29	0	29	100%	1924	10	90%	33%
1996	29	0	29	100%	1924	10	91%	33%
1997	29	0	29	100%	1924	10	93%	33%
1998	29	0	29	100%	1924	10	94%	33%
1999	29	0	29	100%	1924	10	95%	33%
2000	29	0	29	99%	1924	10	96%	33%
2001	20	0	20	68%	1931	10	98%	33%
2002	20	0	20	68%	1931	10	99%	33%
2003	29	0	29	99%	1931	10	100%	33%
Average	24	0	24	81%		24		81%
Maximum	29	0	29	100%		29		100%
Minimum	10	0	10	33%		10		33%

Table D.21. Oak Flat WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	3	0	3	46%	1983	5	0%	82%
1923	2	0	2	43%	1969	5	1%	81%
1924	1	0	1	15%	1938	5	2%	81%
1925	2	0	2	29%	1986	4	4%	76%
1926	2	0	2	31%	1982	4	5%	74%
1927	2	0	2	43%	1984	4	6%	70%
1928	3	0	3	47%	1978	4	7%	67%
1929	1	0	1	17%	1980	4	9%	66%
1930	3	0	3	48%	1956	4	10%	64%
1931	1	0	1	11%	1941	4	11%	63%
1932	2	0	2	31%	1998	4	12%	62%
1933	1	0	1	18%	1997	3	14%	61%
1934	1	0	1	24%	1943	3	15%	61%
1935	3	0	3	52%	1996	3	16%	58%
1936	2	0	2	40%	1995	3	17%	58%
1937	3	0	3	53%	1999	3	19%	55%
1938	5	0	5	81%	1958	3	20%	55%
1939	2	0	2	30%	1973	3	21%	54%
1940	3	0	3	48%	1937	3	22%	53%
1941	4	0	4	63%	1989	3	23%	53%
1942	2	0	2	44%	1952	3	25%	53%
1943	3	0	3	61%	1951	3	26%	52%
1944	2	0	2	35%	1935	3	27%	52%
1945	2	0	2	31%	1967	3	28%	51%
1946	2	0	2	28%	1979	3	30%	49%
1947	1	0	1	24%	1930	3	31%	48%
1948	2	0	2	43%	1940	3	32%	48%
1949	1	0	1	26%	2002	3	33%	48%
1950	2	0	2	39%	1972	3	35%	48%
1951	3	0	3	52%	1928	3	36%	47%
1952	3	0	3	53%	1975	3	37%	47%
1953	2	0	2	37%	1970	3	38%	47%
1954	2	0	2	37%	1922	3	40%	46%
1955	2	0	2	29%	1964	3	41%	46%
1956	4	0	4	64%	1993	3	42%	45%
1957	2	0	2	32%	1942	2	43%	44%
1958	3	0	3	55%	1923	2	44%	43%
1959	2	0	2	28%	1948	2	46%	43%
1960	2	0	2	30%	1927	2	47%	43%
1961	1	0	1	25%	1974	2	48%	41%
1962	2	0	2	33%	2000	2	49%	41%
1963	2	0	2	39%	2003	2	51%	41%
1964	3	0	3	46%	1936	2	52%	40%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	39%	1976	2	53%	40%
1966	2	0	2	27%	1965	2	54%	39%
1967	3	0	3	51%	1963	2	56%	39%
1968	2	0	2	35%	1950	2	57%	39%
1969	5	0	5	81%	1954	2	58%	37%
1970	3	0	3	47%	1971	2	59%	37%
1971	2	0	2	37%	1953	2	60%	37%
1972	3	0	3	48%	1944	2	62%	35%
1973	3	0	3	54%	1968	2	63%	35%
1974	2	0	2	41%	1994	2	64%	34%
1975	3	0	3	47%	1985	2	65%	33%
1976	2	0	2	40%	1962	2	67%	33%
1977	0	0	0	8%	1957	2	68%	32%
1978	4	0	4	67%	1926	2	69%	31%
1979	3	0	3	49%	1945	2	70%	31%
1980	4	0	4	66%	1932	2	72%	31%
1981	1	0	1	21%	1939	2	73%	30%
1982	4	0	4	74%	1960	2	74%	30%
1983	5	0	5	82%	1955	2	75%	29%
1984	4	0	4	70%	1925	2	77%	29%
1985	2	0	2	33%	1946	2	78%	28%
1986	4	0	4	76%	1959	2	79%	28%
1987	1	0	1	20%	1966	2	80%	27%
1988	1	0	1	10%	1949	1	81%	26%
1989	3	0	3	53%	1961	1	83%	25%
1990	1	0	1	17%	1934	1	84%	24%
1991	1	0	1	9%	1947	1	85%	24%
1992	1	0	1	12%	1981	1	86%	21%
1993	3	0	3	45%	1987	1	88%	20%
1994	2	0	2	34%	2001	1	89%	19%
1995	3	0	3	58%	1933	1	90%	18%
1996	3	0	3	58%	1929	1	91%	17%
1997	3	0	3	61%	1990	1	93%	17%
1998	4	0	4	62%	1924	1	94%	15%
1999	3	0	3	55%	1992	1	95%	12%
2000	2	0	2	41%	1931	1	96%	11%
2001	1	0	1	19%	1988	1	98%	10%
2002	3	0	3	48%	1991	1	99%	9%
2003	2	0	2	41%	1977	0	100%	8%
Average	2	0	2	41%		2		41%
Maximum	5	0	5	82%		5		82%
Minimum	0	0	0	8%		0		8%

Table D.22. Palmdale WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	10	0	10	46%	1983	17	0%	82%
1923	9	0	9	43%	1969	17	1%	82%
1924	4	0	4	18%	1938	17	2%	81%
1925	4	0	4	21%	1986	16	4%	76%
1926	8	0	8	37%	1982	16	5%	74%
1927	9	0	9	43%	1978	14	6%	67%
1928	11	0	11	51%	1984	14	7%	66%
1929	4	0	4	17%	1956	14	9%	66%
1930	10	0	10	45%	1998	13	10%	62%
1931	4	0	4	17%	1943	13	11%	61%
1932	7	0	7	32%	1941	12	12%	58%
1933	4	0	4	18%	1996	12	14%	58%
1934	6	0	6	28%	1995	12	15%	58%
1935	12	0	12	56%	1980	12	16%	56%
1936	7	0	7	31%	1935	12	17%	56%
1937	9	0	9	43%	1999	12	19%	55%
1938	17	0	17	81%	1958	12	20%	55%
1939	4	0	4	20%	1997	11	21%	53%
1940	11	0	11	52%	1979	11	22%	53%
1941	12	0	12	58%	1952	11	23%	53%
1942	8	0	8	39%	1940	11	25%	52%
1943	13	0	13	61%	1928	11	26%	51%
1944	9	0	9	42%	1967	11	27%	51%
1945	5	0	5	23%	1973	11	28%	50%
1946	6	0	6	28%	1989	10	30%	49%
1947	6	0	6	27%	1972	10	31%	48%
1948	10	0	10	46%	1975	10	32%	47%
1949	8	0	8	40%	1948	10	33%	46%
1950	9	0	9	43%	1922	10	35%	46%
1951	9	0	9	42%	1930	10	36%	45%
1952	11	0	11	53%	1993	10	37%	45%
1953	6	0	6	29%	1923	9	38%	43%
1954	9	0	9	41%	1950	9	40%	43%
1955	6	0	6	30%	1927	9	41%	43%
1956	14	0	14	66%	1937	9	42%	43%
1957	7	0	7	32%	2003	9	43%	42%
1958	12	0	12	55%	1951	9	44%	42%
1959	4	0	4	21%	1944	9	46%	42%
1960	8	0	8	38%	1974	9	47%	41%
1961	8	0	8	38%	1954	9	48%	41%
1962	6	0	6	26%	1949	8	49%	40%
1963	8	0	8	39%	1965	8	51%	40%
1964	7	0	7	34%	1963	8	52%	39%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	8	0	8	40%	1942	8	53%	39%
1966	4	0	4	19%	2002	8	54%	39%
1967	11	0	11	51%	1970	8	56%	38%
1968	6	0	6	26%	1960	8	57%	38%
1969	17	0	17	82%	1961	8	58%	38%
1970	8	0	8	38%	1926	8	59%	37%
1971	8	0	8	37%	1971	8	60%	37%
1972	10	0	10	48%	1964	7	62%	34%
1973	11	0	11	50%	1932	7	63%	32%
1974	9	0	9	41%	1957	7	64%	32%
1975	10	0	10	47%	2000	7	65%	32%
1976	7	0	7	32%	1976	7	67%	32%
1977	2	0	2	8%	1981	7	68%	31%
1978	14	0	14	67%	1936	7	69%	31%
1979	11	0	11	53%	1955	6	70%	30%
1980	12	0	12	56%	1953	6	72%	29%
1981	7	0	7	31%	1934	6	73%	28%
1982	16	0	16	74%	1946	6	74%	28%
1983	17	0	17	82%	1947	6	75%	27%
1984	14	0	14	66%	1962	6	77%	26%
1985	5	0	5	21%	1968	6	78%	26%
1986	16	0	16	76%	1994	5	79%	25%
1987	3	0	3	13%	1990	5	80%	25%
1988	3	0	3	15%	1945	5	81%	23%
1989	10	0	10	49%	1985	5	83%	21%
1990	5	0	5	25%	1959	4	84%	21%
1991	3	0	3	14%	1925	4	85%	21%
1992	4	0	4	18%	1939	4	86%	20%
1993	10	0	10	45%	2001	4	88%	19%
1994	5	0	5	25%	1966	4	89%	19%
1995	12	0	12	58%	1933	4	90%	18%
1996	12	0	12	58%	1924	4	91%	18%
1997	11	0	11	53%	1992	4	93%	18%
1998	13	0	13	62%	1931	4	94%	17%
1999	12	0	12	55%	1929	4	95%	17%
2000	7	0	7	32%	1988	3	96%	15%
2001	4	0	4	19%	1991	3	98%	14%
2002	8	0	8	39%	1987	3	99%	13%
2003	9	0	9	42%	1977	2	100%	8%
Average	9	0	9	40%		9		40%
Maximum	17	0	17	82%		17		82%
Minimum	2	0	2	8%		2		8%

Table D.23. San Bernardino Valley MWD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	47	0	47	46%	1983	82	0%	80%
1923	44	0	44	43%	1969	75	1%	73%
1924	19	0	19	18%	1938	74	2%	73%
1925	45	0	45	44%	1986	69	4%	67%
1926	38	0	38	37%	1982	68	5%	66%
1927	44	0	44	43%	1998	66	6%	64%
1928	52	0	52	51%	1980	66	7%	64%
1929	17	0	17	17%	1937	63	9%	61%
1930	53	0	53	52%	1978	62	10%	61%
1931	17	0	17	17%	1956	62	11%	61%
1932	33	0	33	32%	1951	62	12%	60%
1933	19	0	19	18%	1941	61	14%	60%
1934	29	0	29	28%	1943	61	15%	59%
1935	57	0	57	56%	1979	60	16%	59%
1936	49	0	49	48%	1996	59	17%	58%
1937	63	0	63	61%	1995	59	19%	58%
1938	74	0	74	73%	1989	58	20%	57%
1939	40	2	42	41%	1952	57	21%	56%
1940	53	0	53	52%	1935	57	22%	56%
1941	61	0	61	60%	1958	56	23%	55%
1942	45	0	45	44%	1973	56	25%	54%
1943	61	0	61	59%	1964	55	26%	53%
1944	43	2	45	44%	1994	54	27%	52%
1945	49	0	49	47%	1930	53	28%	52%
1946	23	0	23	22%	1940	53	30%	52%
1947	37	0	37	36%	2002	53	31%	51%
1948	48	0	48	46%	1928	52	32%	51%
1949	41	0	41	40%	1967	52	33%	51%
1950	44	0	44	43%	1936	49	35%	48%
1951	62	0	62	60%	1972	49	36%	48%
1952	54	3	57	56%	1945	49	37%	47%
1953	23	0	23	23%	1975	49	38%	47%
1954	42	0	42	41%	1948	48	40%	46%
1955	31	0	31	30%	1922	47	41%	46%
1956	62	0	62	61%	1993	46	42%	45%
1957	33	6	39	38%	1999	46	43%	45%
1958	56	0	56	55%	1984	46	44%	45%
1959	44	0	44	43%	1925	45	46%	44%
1960	39	0	39	38%	1942	45	47%	44%
1961	39	0	39	38%	1944	45	48%	44%
1962	43	0	43	42%	1985	44	49%	43%
1963	40	0	40	39%	1923	44	51%	43%
1964	55	0	55	53%	1950	44	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	32	0	32	31%	1959	44	53%	43%
1966	42	0	42	41%	1976	44	54%	43%
1967	52	0	52	51%	1927	44	56%	43%
1968	35	0	35	35%	1962	43	57%	42%
1969	75	0	75	73%	1974	42	58%	41%
1970	26	0	27	26%	1954	42	59%	41%
1971	38	0	38	37%	1939	42	60%	41%
1972	49	0	49	48%	1966	42	62%	41%
1973	56	0	56	54%	1949	41	63%	40%
1974	42	0	42	41%	1963	40	64%	39%
1975	49	0	49	47%	1981	40	65%	39%
1976	44	0	44	43%	1960	39	67%	38%
1977	8	0	8	8%	1961	39	68%	38%
1978	62	0	62	61%	1997	39	69%	38%
1979	54	6	60	59%	1957	39	70%	38%
1980	66	0	66	64%	1926	38	72%	37%
1981	32	8	40	39%	1971	38	73%	37%
1982	68	0	68	66%	1947	37	74%	36%
1983	75	7	82	80%	1968	35	75%	35%
1984	41	4	46	45%	1932	33	77%	32%
1985	39	6	44	43%	1965	32	78%	31%
1986	69	0	69	67%	1955	31	79%	30%
1987	30	0	31	30%	1987	31	80%	30%
1988	15	0	15	15%	2003	30	81%	29%
1989	58	0	58	57%	1934	29	83%	28%
1990	25	0	25	25%	1970	27	84%	26%
1991	14	0	14	14%	1990	25	85%	25%
1992	19	0	19	18%	2000	25	86%	24%
1993	46	0	46	45%	1953	23	88%	23%
1994	54	0	54	52%	1946	23	89%	22%
1995	59	0	59	58%	2001	20	90%	19%
1996	59	0	59	58%	1933	19	91%	18%
1997	39	0	39	38%	1924	19	93%	18%
1998	61	5	66	64%	1992	19	94%	18%
1999	43	3	46	45%	1931	17	95%	17%
2000	25	0	25	24%	1929	17	96%	17%
2001	20	0	20	19%	1988	15	98%	15%
2002	53	0	53	51%	1991	14	99%	14%
2003	30	0	30	29%	1977	8	100%	8%
Average	44	1	44	43%		44		43%
Maximum	75	8	82	80%		82		80%
Minimum	8	0	8	8%		8		8%

Table D.24. San Gabriel Valley MWD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	13	0	13	46%	1969	24	0%	82%
1923	12	0	12	43%	1983	24	1%	82%
1924	5	0	5	18%	1938	23	2%	81%
1925	13	0	13	44%	1986	22	4%	76%
1926	11	0	11	37%	1982	21	5%	74%
1927	12	0	12	43%	1980	21	6%	72%
1928	15	0	15	51%	1984	20	7%	71%
1929	5	0	5	17%	1978	19	9%	67%
1930	15	0	15	52%	1956	19	10%	66%
1931	5	0	5	17%	1937	19	11%	65%
1932	9	0	9	32%	1951	18	12%	64%
1933	5	0	5	18%	1941	18	14%	63%
1934	8	0	8	28%	1998	18	15%	62%
1935	16	0	16	56%	1943	18	16%	61%
1936	14	0	14	48%	1996	17	17%	58%
1937	19	0	19	65%	1995	17	19%	58%
1938	23	0	23	81%	1989	16	20%	57%
1939	11	0	11	39%	1935	16	21%	56%
1940	13	0	13	44%	1999	16	22%	55%
1941	18	0	18	63%	1958	16	23%	55%
1942	13	0	13	44%	1973	16	25%	54%
1943	18	0	18	61%	1964	15	26%	53%
1944	12	0	12	42%	1979	15	27%	53%
1945	14	0	14	47%	1952	15	28%	53%
1946	8	0	8	28%	1994	15	30%	52%
1947	10	0	10	36%	1930	15	31%	52%
1948	13	0	13	46%	2002	15	32%	51%
1949	11	0	11	40%	1928	15	33%	51%
1950	12	0	12	43%	1967	15	35%	51%
1951	18	0	18	64%	1936	14	36%	48%
1952	15	0	15	53%	1997	14	37%	48%
1953	8	0	8	28%	1972	14	38%	48%
1954	10	0	10	36%	1945	14	40%	47%
1955	9	0	9	30%	1975	14	41%	47%
1956	19	0	19	66%	1948	13	42%	46%
1957	9	0	9	32%	1922	13	43%	46%
1958	16	0	16	55%	1968	13	44%	45%
1959	9	0	9	33%	1993	13	46%	45%
1960	10	0	10	35%	1925	13	47%	44%
1961	6	0	6	22%	1940	13	48%	44%
1962	12	0	12	42%	1942	13	49%	44%
1963	11	0	11	39%	1923	12	51%	43%
1964	15	0	15	53%	1950	12	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	12	0	12	40%	1976	12	53%	43%
1966	12	0	12	41%	1927	12	54%	43%
1967	15	0	15	51%	1970	12	56%	43%
1968	13	0	13	45%	1944	12	57%	42%
1969	24	0	24	82%	1962	12	58%	42%
1970	12	0	12	43%	1974	12	59%	41%
1971	11	0	11	37%	1966	12	60%	41%
1972	14	0	14	48%	1965	12	62%	40%
1973	16	0	16	54%	1949	11	63%	40%
1974	12	0	12	41%	1963	11	64%	39%
1975	14	0	14	47%	1939	11	65%	39%
1976	12	0	12	43%	2003	11	67%	38%
1977	2	0	2	8%	1985	11	68%	38%
1978	19	0	19	67%	1926	11	69%	37%
1979	15	0	15	53%	1971	11	70%	37%
1980	21	0	21	72%	1947	10	72%	36%
1981	9	0	9	31%	1954	10	73%	36%
1982	21	0	21	74%	1960	10	74%	35%
1983	24	0	24	82%	1959	9	75%	33%
1984	20	0	20	71%	1932	9	77%	32%
1985	11	0	11	38%	1957	9	78%	32%
1986	22	0	22	76%	2000	9	79%	32%
1987	9	0	9	30%	1981	9	80%	31%
1988	4	0	4	15%	1955	9	81%	30%
1989	16	0	16	57%	1987	9	83%	30%
1990	7	0	7	25%	1953	8	84%	28%
1991	3	0	3	10%	1934	8	85%	28%
1992	4	0	4	13%	1946	8	86%	28%
1993	13	0	13	45%	1990	7	88%	25%
1994	15	0	15	52%	1961	6	89%	22%
1995	17	0	17	58%	2001	6	90%	19%
1996	17	0	17	58%	1933	5	91%	18%
1997	14	0	14	48%	1924	5	93%	18%
1998	18	0	18	62%	1931	5	94%	17%
1999	16	0	16	55%	1929	5	95%	17%
2000	9	0	9	32%	1988	4	96%	15%
2001	6	0	6	19%	1992	4	98%	13%
2002	15	0	15	51%	1991	3	99%	10%
2003	11	0	11	38%	1977	2	100%	8%
Average	13	0	13	44%		13		44%
Maximum	24	0	24	82%		24		82%
Minimum	2	0	2	8%		2		8%

Table D.25. San Geronio Pass WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	8	0	8	46%	1983	14	0%	82%
1923	7	0	7	43%	1969	14	1%	82%
1924	3	0	3	18%	1938	14	2%	81%
1925	8	0	8	44%	1986	13	4%	76%
1926	6	0	6	37%	1982	13	5%	74%
1927	7	0	7	43%	1980	13	6%	72%
1928	9	0	9	51%	1984	12	7%	71%
1929	3	0	3	17%	1978	12	9%	67%
1930	9	0	9	52%	1956	11	10%	66%
1931	3	0	3	17%	1937	11	11%	65%
1932	6	0	6	32%	1951	11	12%	64%
1933	3	0	3	18%	1941	11	14%	63%
1934	5	0	5	28%	1998	11	15%	62%
1935	10	0	10	56%	1943	11	16%	61%
1936	8	0	8	48%	1996	10	17%	58%
1937	11	0	11	65%	1995	10	19%	58%
1938	14	0	14	81%	1989	10	20%	57%
1939	7	0	7	39%	1935	10	21%	56%
1940	9	0	9	52%	1997	10	22%	55%
1941	11	0	11	63%	1958	10	23%	55%
1942	8	0	8	44%	1973	9	25%	54%
1943	11	0	11	61%	1964	9	26%	53%
1944	7	0	7	42%	1979	9	27%	53%
1945	8	0	8	47%	1952	9	28%	53%
1946	4	0	4	26%	1994	9	30%	52%
1947	6	0	6	36%	1930	9	31%	52%
1948	8	0	8	46%	1940	9	32%	52%
1949	7	0	7	40%	2002	9	33%	51%
1950	7	0	7	43%	1928	9	35%	51%
1951	11	0	11	64%	1967	9	36%	51%
1952	9	0	9	53%	2000	9	37%	49%
1953	5	0	5	26%	1936	8	38%	48%
1954	7	0	7	41%	1972	8	40%	48%
1955	5	0	5	30%	1945	8	41%	47%
1956	11	0	11	66%	1975	8	42%	47%
1957	6	0	6	32%	1948	8	43%	46%
1958	10	0	10	55%	1922	8	44%	46%
1959	7	0	7	43%	1993	8	46%	45%
1960	7	0	7	38%	1925	8	47%	44%
1961	7	0	7	38%	1942	8	48%	44%
1962	7	0	7	42%	1999	8	49%	44%
1963	7	0	7	39%	1923	7	51%	43%
1964	9	0	9	53%	1950	7	52%	43%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	6	0	6	33%	1959	7	53%	43%
1966	7	0	7	41%	1976	7	54%	43%
1967	9	0	9	51%	1927	7	56%	43%
1968	6	0	6	37%	1944	7	57%	42%
1969	14	0	14	82%	1962	7	58%	42%
1970	6	0	6	35%	1974	7	59%	41%
1971	6	0	6	37%	1954	7	60%	41%
1972	8	0	8	48%	1966	7	62%	41%
1973	9	0	9	54%	1949	7	63%	40%
1974	7	0	7	41%	1963	7	64%	39%
1975	8	0	8	47%	1939	7	65%	39%
1976	7	0	7	43%	1960	7	67%	38%
1977	1	0	1	8%	1985	7	68%	38%
1978	12	0	12	67%	1961	7	69%	38%
1979	9	0	9	53%	1926	6	70%	37%
1980	13	0	13	72%	1971	6	72%	37%
1981	5	0	5	31%	1968	6	73%	37%
1982	13	0	13	74%	1947	6	74%	36%
1983	14	0	14	82%	1970	6	75%	35%
1984	12	0	12	71%	1965	6	77%	33%
1985	7	0	7	38%	1932	6	78%	32%
1986	13	0	13	76%	1957	6	79%	32%
1987	5	0	5	30%	1981	5	80%	31%
1988	3	0	3	15%	2003	5	81%	31%
1989	10	0	10	57%	1955	5	83%	30%
1990	4	0	4	25%	1987	5	84%	30%
1991	2	0	2	14%	1934	5	85%	28%
1992	3	0	3	18%	1953	5	86%	26%
1993	8	0	8	45%	1946	4	88%	26%
1994	9	0	9	52%	1990	4	89%	25%
1995	10	0	10	58%	2001	3	90%	19%
1996	10	0	10	58%	1933	3	91%	18%
1997	10	0	10	55%	1924	3	93%	18%
1998	11	0	11	62%	1992	3	94%	18%
1999	8	0	8	44%	1931	3	95%	17%
2000	9	0	9	49%	1929	3	96%	17%
2001	3	0	3	19%	1988	3	98%	15%
2002	9	0	9	51%	1991	2	99%	14%
2003	5	0	5	31%	1977	1	100%	8%
Average	8	0	8	45%		8		45%
Maximum	14	0	14	82%		14		82%
Minimum	1	0	1	8%		1		8%

Table D.26. San Luis Obispo County FC&WCD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	11	0	11	46%	1969	21	0%	82%
1923	11	0	11	43%	1969	21	1%	82%
1924	5	0	5	18%	1938	20	2%	81%
1925	11	0	11	44%	1986	19	4%	76%
1926	9	0	9	37%	1982	19	5%	74%
1927	11	0	11	43%	1978	17	6%	67%
1928	13	0	13	51%	1980	17	7%	67%
1929	4	0	4	17%	1956	17	9%	66%
1930	13	0	13	52%	1984	16	10%	65%
1931	4	0	4	17%	1937	16	11%	65%
1932	8	0	8	32%	1941	16	12%	63%
1933	5	0	5	18%	1997	16	14%	63%
1934	7	0	7	28%	1998	16	15%	62%
1935	14	0	14	56%	1943	15	16%	61%
1936	12	0	12	48%	2003	15	17%	58%
1937	16	0	16	65%	1996	14	19%	58%
1938	20	0	20	81%	1995	14	20%	58%
1939	10	0	10	39%	1989	14	21%	57%
1940	13	0	13	52%	1935	14	22%	56%
1941	16	0	16	63%	1999	14	23%	55%
1942	11	0	11	44%	1958	14	25%	55%
1943	15	0	15	61%	1968	13	26%	53%
1944	11	0	11	42%	1964	13	27%	53%
1945	12	0	12	47%	1951	13	28%	53%
1946	11	0	11	43%	1979	13	30%	53%
1947	7	0	7	29%	1952	13	31%	53%
1948	12	0	12	46%	1930	13	32%	52%
1949	10	0	10	40%	1940	13	33%	52%
1950	11	0	11	43%	1928	13	35%	51%
1951	13	0	13	53%	1967	13	36%	51%
1952	13	0	13	53%	1973	13	37%	50%
1953	10	0	10	40%	1936	12	38%	48%
1954	10	0	10	41%	1972	12	40%	48%
1955	8	0	8	30%	1945	12	41%	47%
1956	17	0	17	66%	1975	12	42%	47%
1957	8	0	8	32%	1965	12	43%	47%
1958	14	0	14	55%	2002	12	44%	47%
1959	7	0	7	30%	1948	12	46%	46%
1960	10	0	10	38%	1922	11	47%	46%
1961	9	0	9	38%	1993	11	48%	45%
1962	10	0	10	42%	1970	11	49%	44%
1963	10	0	10	39%	1925	11	51%	44%
1964	13	0	13	53%	1942	11	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	12	0	12	47%	1923	11	53%	43%
1966	9	0	9	35%	1946	11	54%	43%
1967	13	0	13	51%	1950	11	56%	43%
1968	13	0	13	53%	1976	11	57%	43%
1969	21	0	21	82%	1927	11	58%	43%
1970	11	0	11	44%	1944	11	59%	42%
1971	9	0	9	37%	1962	10	60%	42%
1972	12	0	12	48%	1974	10	62%	41%
1973	13	0	13	50%	1954	10	63%	41%
1974	10	0	10	41%	2000	10	64%	41%
1975	12	0	12	47%	1953	10	65%	40%
1976	11	0	11	43%	1949	10	67%	40%
1977	2	0	2	8%	1963	10	68%	39%
1978	17	0	17	67%	1939	10	69%	39%
1979	13	0	13	53%	1960	10	70%	38%
1980	17	0	17	67%	1985	9	72%	38%
1981	8	0	8	31%	1961	9	73%	38%
1982	19	0	19	74%	1926	9	74%	37%
1983	21	0	21	82%	1971	9	75%	37%
1984	16	0	16	65%	1966	9	77%	35%
1985	9	0	9	38%	1932	8	78%	32%
1986	19	0	19	76%	1957	8	79%	32%
1987	7	0	7	30%	1981	8	80%	31%
1988	4	0	4	15%	1955	8	81%	30%
1989	14	0	14	57%	1959	7	83%	30%
1990	6	0	6	25%	1987	7	84%	30%
1991	3	0	3	14%	1994	7	85%	29%
1992	5	0	5	18%	1947	7	86%	29%
1993	11	0	11	45%	1934	7	88%	28%
1994	7	0	7	29%	1990	6	89%	25%
1995	14	0	14	58%	2001	5	90%	19%
1996	14	0	14	58%	1933	5	91%	18%
1997	16	0	16	63%	1924	5	93%	18%
1998	16	0	16	62%	1992	5	94%	18%
1999	14	0	14	55%	1931	4	95%	17%
2000	10	0	10	41%	1929	4	96%	17%
2001	5	0	5	19%	1988	4	98%	15%
2002	12	0	12	47%	1991	3	99%	14%
2003	15	0	15	58%	1977	2	100%	8%
Average	11	0	11	45%		11		45%
Maximum	21	0	21	82%		21		82%
Minimum	2	0	2	8%		2		8%

Table D.27. Santa Barbara County FC&WCD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	21	0	21	46%	1983	37	0%	82%
1923	20	0	20	43%	1938	37	1%	81%
1924	8	0	8	18%	1986	34	2%	76%
1925	9	0	9	20%	1982	34	4%	74%
1926	17	0	17	37%	1969	34	5%	74%
1927	20	0	20	43%	1978	31	6%	67%
1928	23	0	23	51%	1998	28	7%	62%
1929	8	0	8	17%	1943	28	9%	61%
1930	20	0	20	45%	1996	26	10%	58%
1931	8	0	8	17%	1995	26	11%	58%
1932	15	0	15	32%	1941	26	12%	57%
1933	8	0	8	18%	1989	26	14%	57%
1934	13	0	13	28%	1935	25	15%	56%
1935	25	0	25	56%	1999	25	16%	55%
1936	13	0	13	28%	1958	25	17%	55%
1937	17	0	17	37%	1979	24	19%	53%
1938	37	0	37	81%	1952	24	20%	53%
1939	9	0	9	20%	1940	24	21%	52%
1940	24	0	24	52%	1928	23	22%	51%
1941	26	0	26	57%	1967	23	23%	51%
1942	18	0	18	39%	1973	23	25%	50%
1943	28	0	28	61%	1980	22	26%	49%
1944	19	0	19	42%	1972	22	27%	48%
1945	10	0	10	22%	1975	22	28%	47%
1946	9	0	9	20%	1965	22	30%	47%
1947	12	0	12	27%	1948	21	31%	46%
1948	21	0	21	46%	1997	21	32%	46%
1949	18	0	18	40%	1922	21	33%	46%
1950	20	0	20	43%	1956	21	35%	45%
1951	17	0	17	37%	1993	20	36%	45%
1952	24	0	24	53%	1930	20	37%	45%
1953	12	0	12	26%	1923	20	38%	43%
1954	19	0	19	41%	1950	20	40%	43%
1955	14	0	14	30%	1927	20	41%	43%
1956	21	0	21	45%	1944	19	42%	42%
1957	15	0	15	32%	1974	19	43%	41%
1958	25	0	25	55%	1954	19	44%	41%
1959	9	0	9	20%	1984	18	46%	40%
1960	17	0	17	38%	1949	18	47%	40%
1961	17	0	17	38%	1963	18	48%	39%
1962	10	0	10	21%	1942	18	49%	39%
1963	18	0	18	39%	2003	17	51%	38%
1964	15	0	15	33%	1960	17	52%	38%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	22	0	22	47%	1961	17	53%	38%
1966	8	0	8	19%	1926	17	54%	37%
1967	23	0	23	51%	1971	17	56%	37%
1968	11	0	11	25%	1937	17	57%	37%
1969	34	0	34	74%	1951	17	58%	37%
1970	16	0	16	36%	1970	16	59%	36%
1971	17	0	17	37%	2002	16	60%	35%
1972	22	0	22	48%	1964	15	62%	33%
1973	23	0	23	50%	1932	15	63%	32%
1974	19	0	19	41%	1957	15	64%	32%
1975	22	0	22	47%	1981	14	65%	31%
1976	14	0	14	30%	1976	14	67%	30%
1977	3	0	3	8%	1955	14	68%	30%
1978	31	0	31	67%	2000	13	69%	29%
1979	24	0	24	53%	1934	13	70%	28%
1980	22	0	22	49%	1936	13	72%	28%
1981	14	0	14	31%	1947	12	73%	27%
1982	34	0	34	74%	1953	12	74%	26%
1983	37	0	37	82%	1990	11	75%	25%
1984	18	0	18	40%	1968	11	77%	25%
1985	11	0	11	23%	1994	11	78%	24%
1986	34	0	34	76%	1985	11	79%	23%
1987	6	0	6	14%	1945	10	80%	22%
1988	7	0	7	15%	1962	10	81%	21%
1989	26	0	26	57%	1925	9	83%	20%
1990	11	0	11	25%	1946	9	84%	20%
1991	6	0	6	14%	1939	9	85%	20%
1992	4	0	4	8%	1959	9	86%	20%
1993	20	0	20	45%	2001	9	88%	19%
1994	11	0	11	24%	1966	8	89%	19%
1995	26	0	26	58%	1933	8	90%	18%
1996	26	0	26	58%	1924	8	91%	18%
1997	21	0	21	46%	1931	8	93%	17%
1998	28	0	28	62%	1929	8	94%	17%
1999	25	0	25	55%	1988	7	95%	15%
2000	13	0	13	29%	1991	6	96%	14%
2001	9	0	9	19%	1987	6	98%	14%
2002	16	0	16	35%	1992	4	99%	8%
2003	17	0	17	38%	1977	3	100%	8%
Average	18	0	18	39%		18		39%
Maximum	37	0	37	82%		37		82%
Minimum	3	0	3	8%		3		8%

Table D.28. Santa Clara Valley WD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	46	0	46	46%	1969	82	0%	82%
1923	43	0	43	43%	1969	82	1%	82%
1924	18	0	18	18%	1938	81	2%	81%
1925	44	0	44	44%	1986	76	4%	76%
1926	37	0	37	37%	1982	74	5%	74%
1927	43	0	43	43%	1980	72	6%	72%
1928	51	0	51	51%	1984	71	7%	71%
1929	17	0	17	17%	1997	68	9%	68%
1930	52	0	52	52%	1978	67	10%	67%
1931	17	0	17	17%	1956	66	11%	66%
1932	32	0	32	32%	1937	65	12%	65%
1933	18	0	18	18%	1951	64	14%	64%
1934	28	0	28	28%	1941	63	15%	63%
1935	56	0	56	56%	1998	62	16%	62%
1936	48	0	48	48%	1943	61	17%	61%
1937	65	0	65	65%	1996	58	19%	58%
1938	81	0	81	81%	2003	58	20%	58%
1939	39	0	39	39%	1995	58	21%	58%
1940	52	0	52	52%	1989	57	22%	57%
1941	63	0	63	63%	1935	56	23%	56%
1942	44	0	44	44%	1999	55	25%	55%
1943	61	0	61	61%	1958	55	26%	55%
1944	42	0	42	42%	1973	54	27%	54%
1945	47	0	47	47%	1968	53	28%	53%
1946	43	0	43	43%	1964	53	30%	53%
1947	36	0	36	36%	1979	53	31%	53%
1948	46	0	46	46%	1952	53	32%	53%
1949	40	0	40	40%	1994	52	33%	52%
1950	43	0	43	43%	1930	52	35%	52%
1951	64	0	64	64%	1940	52	36%	52%
1952	53	0	53	53%	2002	51	37%	51%
1953	45	0	45	45%	1928	51	38%	51%
1954	41	0	41	41%	1967	51	40%	51%
1955	30	0	30	30%	1970	50	41%	50%
1956	66	0	66	66%	2000	49	42%	49%
1957	32	0	32	32%	1936	48	43%	48%
1958	55	0	55	55%	1972	48	44%	48%
1959	43	0	43	43%	1945	47	46%	47%
1960	38	0	38	38%	1975	47	47%	47%
1961	38	0	38	38%	1965	47	48%	47%
1962	42	0	42	42%	1948	46	49%	46%
1963	39	0	39	39%	1922	46	51%	46%
1964	53	0	53	53%	1993	45	52%	45%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	47	0	47	47%	1953	45	53%	45%
1966	41	0	41	41%	1925	44	54%	44%
1967	51	0	51	51%	1942	44	56%	44%
1968	53	0	53	53%	1923	43	57%	43%
1969	82	0	82	82%	1946	43	58%	43%
1970	50	0	50	50%	1950	43	59%	43%
1971	37	0	37	37%	1959	43	60%	43%
1972	48	0	48	48%	1976	43	62%	43%
1973	54	0	54	54%	1927	43	63%	43%
1974	41	0	41	41%	1944	42	64%	42%
1975	47	0	47	47%	1962	42	65%	42%
1976	43	0	43	43%	1974	41	67%	41%
1977	8	0	8	8%	1954	41	68%	41%
1978	67	0	67	67%	1966	41	69%	41%
1979	53	0	53	53%	1949	40	70%	40%
1980	72	0	72	72%	1963	39	72%	39%
1981	31	0	31	31%	1939	39	73%	39%
1982	74	0	74	74%	1960	38	74%	38%
1983	82	0	82	82%	1985	38	75%	38%
1984	71	0	71	71%	1961	38	77%	38%
1985	38	0	38	38%	1926	37	78%	37%
1986	76	0	76	76%	1971	37	79%	37%
1987	30	0	30	30%	1947	36	80%	36%
1988	15	0	15	15%	1932	32	81%	32%
1989	57	0	57	57%	1957	32	83%	32%
1990	25	0	25	25%	1981	31	84%	31%
1991	14	0	14	14%	1955	30	85%	30%
1992	18	0	18	18%	1987	30	86%	30%
1993	45	0	45	45%	1934	28	88%	28%
1994	52	0	52	52%	1990	25	89%	25%
1995	58	0	58	58%	2001	19	90%	19%
1996	58	0	58	58%	1933	18	91%	18%
1997	68	0	68	68%	1924	18	93%	18%
1998	62	0	62	62%	1992	18	94%	18%
1999	55	0	55	55%	1931	17	95%	17%
2000	49	0	49	49%	1929	17	96%	17%
2001	19	0	19	19%	1988	15	98%	15%
2002	51	0	51	51%	1991	14	99%	14%
2003	58	0	58	58%	1977	8	100%	8%
Average	46	0	46	46%		46		46%
Maximum	82	0	82	82%		82		82%
Minimum	8	0	8	8%		8		8%

Table D.29. Solano County WA: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	48	0	48	100%	1938	48	0%	100%
1923	40	0	40	84%	1938	48	1%	100%
1924	12	0	12	25%	1938	48	2%	100%
1925	23	0	23	48%	1938	48	4%	100%
1926	23	0	23	48%	1938	48	5%	100%
1927	44	0	44	93%	1938	48	6%	100%
1928	44	0	44	93%	1922	48	7%	100%
1929	12	0	12	25%	1922	48	9%	100%
1930	23	0	23	48%	1922	48	10%	100%
1931	12	0	12	25%	1922	48	11%	100%
1932	12	0	12	25%	1963	48	12%	100%
1933	12	0	12	25%	1963	48	14%	100%
1934	12	0	12	25%	1963	48	15%	100%
1935	23	0	23	48%	1963	48	16%	100%
1936	40	0	40	84%	1942	48	17%	100%
1937	23	0	23	48%	1942	48	19%	100%
1938	48	0	48	100%	1942	48	20%	100%
1939	40	0	40	84%	1942	48	21%	100%
1940	44	0	44	93%	1942	48	22%	100%
1941	48	0	48	100%	1942	48	23%	100%
1942	48	0	48	100%	1942	48	25%	100%
1943	48	0	48	100%	1942	48	26%	100%
1944	23	0	23	48%	1942	48	27%	100%
1945	40	0	40	84%	1942	48	28%	100%
1946	44	0	44	93%	1942	48	30%	100%
1947	23	0	23	48%	1942	48	31%	100%
1948	40	0	40	84%	1927	44	32%	93%
1949	23	0	23	48%	1927	44	33%	93%
1950	23	0	23	48%	1927	44	35%	93%
1951	44	0	44	93%	1927	44	36%	93%
1952	48	0	48	100%	1927	44	37%	93%
1953	48	0	48	100%	1927	44	38%	93%
1954	44	0	44	93%	1927	44	40%	93%
1955	23	0	23	48%	1927	44	41%	93%
1956	48	0	48	100%	1927	44	42%	93%
1957	44	0	44	93%	1940	44	43%	93%
1958	48	0	48	100%	1940	44	44%	93%
1959	40	0	40	84%	1940	44	46%	93%
1960	23	0	23	48%	2003	43	47%	91%
1961	23	0	23	48%	1923	40	48%	84%
1962	40	0	40	84%	1923	40	49%	84%
1963	48	0	48	100%	1923	40	51%	84%
1964	23	0	23	48%	1923	40	52%	84%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	100%	1923	40	53%	84%
1966	40	0	40	84%	1923	40	54%	84%
1967	48	0	48	100%	1923	40	56%	84%
1968	40	0	40	84%	1923	40	57%	84%
1969	48	0	48	100%	1923	40	58%	84%
1970	48	0	48	100%	1923	40	59%	84%
1971	48	0	48	100%	1923	40	60%	84%
1972	40	0	40	84%	1925	23	62%	48%
1973	44	0	44	93%	1925	23	63%	48%
1974	48	0	48	100%	1925	23	64%	48%
1975	48	0	48	100%	1925	23	65%	48%
1976	23	0	23	48%	1925	23	67%	48%
1977	12	0	12	25%	1925	23	68%	48%
1978	44	0	44	93%	1925	23	69%	48%
1979	23	0	23	48%	1925	23	70%	48%
1980	44	0	44	93%	1925	23	72%	48%
1981	23	0	23	48%	1925	23	73%	48%
1982	48	0	48	100%	1925	23	74%	48%
1983	48	0	48	100%	1925	23	75%	48%
1984	48	0	48	100%	1925	23	77%	48%
1985	40	0	40	84%	1925	23	78%	48%
1986	48	0	48	100%	1925	23	79%	48%
1987	23	0	23	48%	1925	23	80%	48%
1988	12	0	12	25%	1925	23	81%	48%
1989	23	0	23	48%	1925	23	83%	48%
1990	12	0	12	25%	1949	23	84%	48%
1991	12	0	12	25%	1949	23	85%	48%
1992	12	0	12	25%	1977	12	86%	25%
1993	44	0	44	93%	1924	12	88%	25%
1994	12	0	12	25%	1924	12	89%	25%
1995	48	0	48	100%	1924	12	90%	25%
1996	48	0	48	100%	1931	12	91%	25%
1997	48	0	48	100%	1931	12	93%	25%
1998	48	0	48	100%	1931	12	94%	25%
1999	48	0	48	100%	1931	12	95%	25%
2000	44	0	44	93%	1931	12	96%	25%
2001	23	0	23	48%	1931	12	98%	25%
2002	23	0	23	48%	1931	12	99%	25%
2003	43	0	43	91%	1931	12	100%	25%
Average	35	0	35	73%		35		73%
Maximum	48	0	48	100%		48		100%
Minimum	12	0	12	25%		12		25%

Table D.30. Tulare Lake Basin WSD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	41	0	41	46%	1983	73	0%	82%
1923	38	0	38	43%	1938	72	1%	81%
1924	16	0	16	18%	1982	66	2%	74%
1925	15	0	15	17%	1978	60	4%	67%
1926	33	0	33	37%	1969	60	5%	67%
1927	38	0	38	43%	1998	56	6%	62%
1928	45	0	45	51%	1943	54	7%	61%
1929	15	0	15	17%	1996	52	9%	58%
1930	35	0	35	40%	1995	51	10%	58%
1931	9	0	9	10%	1989	50	11%	57%
1932	29	0	29	32%	1935	50	12%	56%
1933	16	0	16	18%	1999	49	14%	55%
1934	25	0	25	28%	1958	49	15%	55%
1935	50	0	50	56%	1979	47	16%	53%
1936	17	0	17	19%	1952	47	17%	53%
1937	37	0	37	41%	1940	46	19%	52%
1938	72	0	72	81%	1986	46	20%	52%
1939	28	0	28	31%	1941	46	21%	51%
1940	46	0	46	52%	1928	45	22%	51%
1941	46	0	46	51%	1967	45	23%	51%
1942	30	0	30	34%	2003	45	25%	50%
1943	54	0	54	61%	1972	42	26%	48%
1944	37	0	37	42%	1975	42	27%	47%
1945	16	0	16	18%	1965	42	28%	47%
1946	16	0	16	17%	1956	42	30%	47%
1947	19	0	19	21%	1948	41	31%	46%
1948	41	0	41	46%	1980	41	32%	46%
1949	35	0	35	40%	1922	41	33%	46%
1950	38	0	38	43%	1993	40	35%	45%
1951	37	0	37	41%	1997	39	36%	44%
1952	47	0	47	53%	1973	39	37%	44%
1953	29	0	29	32%	1923	38	38%	43%
1954	36	0	36	41%	1950	38	40%	43%
1955	16	0	16	18%	1927	38	41%	43%
1956	42	0	42	47%	1944	37	42%	42%
1957	29	0	29	32%	1984	37	43%	42%
1958	49	0	49	55%	1951	37	44%	41%
1959	15	0	15	17%	1974	37	46%	41%
1960	34	0	34	38%	1937	37	47%	41%
1961	19	0	19	21%	1954	36	48%	41%
1962	11	0	11	12%	1949	35	49%	40%
1963	35	0	35	39%	1930	35	51%	40%
1964	22	0	22	24%	1963	35	52%	39%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	42	0	42	47%	2002	34	53%	38%
1966	16	0	16	18%	1960	34	54%	38%
1967	45	0	45	51%	1970	33	56%	38%
1968	19	0	19	22%	1926	33	57%	37%
1969	60	0	60	67%	1971	33	58%	37%
1970	33	0	33	38%	2000	31	59%	35%
1971	33	0	33	37%	1942	30	60%	34%
1972	42	0	42	48%	1976	29	62%	33%
1973	39	0	39	44%	1932	29	63%	32%
1974	37	0	37	41%	1957	29	64%	32%
1975	42	0	42	47%	1953	29	65%	32%
1976	29	0	29	33%	1939	28	67%	31%
1977	7	0	7	8%	1934	25	68%	28%
1978	60	0	60	67%	1964	22	69%	24%
1979	47	0	47	53%	1968	19	70%	22%
1980	41	0	41	46%	1947	19	72%	21%
1981	16	0	16	18%	1994	19	73%	21%
1982	66	0	66	74%	1961	19	74%	21%
1983	73	0	73	82%	2001	17	75%	19%
1984	37	0	37	42%	1936	17	77%	19%
1985	14	0	14	16%	1933	16	78%	18%
1986	46	0	46	52%	1945	16	79%	18%
1987	15	0	15	17%	1981	16	80%	18%
1988	8	0	8	9%	1924	16	81%	18%
1989	50	0	50	57%	1966	16	83%	18%
1990	13	0	13	14%	1955	16	84%	18%
1991	7	0	7	8%	1946	16	85%	17%
1992	4	0	4	4%	1987	15	86%	17%
1993	40	0	40	45%	1959	15	88%	17%
1994	19	0	19	21%	1925	15	89%	17%
1995	51	0	51	58%	1929	15	90%	17%
1996	52	0	52	58%	1985	14	91%	16%
1997	39	0	39	44%	1990	13	93%	14%
1998	56	0	56	62%	1962	11	94%	12%
1999	49	0	49	55%	1931	9	95%	10%
2000	31	0	31	35%	1988	8	96%	9%
2001	17	0	17	19%	1991	7	98%	8%
2002	34	0	34	38%	1977	7	99%	8%
2003	45	0	45	50%	1992	4	100%	4%
Average	33	0	33	37%		33		37%
Maximum	73	0	73	82%		73		82%
Minimum	4	0	4	4%		4		4%

Table D.31. Ventura County WPD: 2015 DCR ECHO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	9	0	9	46%	1969	16	0%	82%
1923	9	0	9	43%	1983	16	1%	82%
1924	4	0	4	18%	1938	16	2%	81%
1925	9	0	9	44%	1982	15	4%	74%
1926	7	0	7	37%	2003	15	5%	74%
1927	9	0	9	43%	1986	14	6%	70%
1928	10	0	10	51%	1997	14	7%	68%
1929	3	0	3	17%	1980	14	9%	68%
1930	10	0	10	52%	1978	13	10%	67%
1931	3	0	3	17%	1984	13	11%	66%
1932	6	0	6	32%	1956	13	12%	66%
1933	4	0	4	18%	1937	13	14%	65%
1934	6	0	6	28%	1951	13	15%	64%
1935	11	0	11	56%	1941	13	16%	63%
1936	10	0	10	48%	1998	12	17%	62%
1937	13	0	13	65%	1943	12	19%	61%
1938	16	0	16	81%	1996	12	20%	58%
1939	8	0	8	39%	1995	12	21%	58%
1940	10	0	10	52%	1989	11	22%	57%
1941	13	0	13	63%	1935	11	23%	56%
1942	9	0	9	44%	1958	11	25%	55%
1943	12	0	12	61%	1973	11	26%	54%
1944	8	0	8	42%	1968	11	27%	53%
1945	9	0	9	47%	1964	11	28%	53%
1946	5	0	5	25%	1979	11	30%	53%
1947	7	0	7	36%	1952	11	31%	53%
1948	9	0	9	46%	1994	10	32%	52%
1949	8	0	8	40%	1930	10	33%	52%
1950	9	0	9	43%	1940	10	35%	52%
1951	13	0	13	64%	2002	10	36%	51%
1952	11	0	11	53%	1928	10	37%	51%
1953	5	0	5	25%	1967	10	38%	51%
1954	8	0	8	41%	1970	10	40%	50%
1955	6	0	6	30%	2000	10	41%	49%
1956	13	0	13	66%	1936	10	42%	48%
1957	6	0	6	32%	1972	10	43%	48%
1958	11	0	11	55%	1945	9	44%	47%
1959	9	0	9	43%	1975	9	46%	47%
1960	8	0	8	38%	1948	9	47%	46%
1961	8	0	8	38%	1922	9	48%	46%
1962	8	0	8	42%	1993	9	49%	45%
1963	8	0	8	39%	1925	9	51%	44%
1964	11	0	11	53%	1942	9	52%	44%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	6	0	6	30%	1923	9	53%	43%
1966	8	0	8	41%	1950	9	54%	43%
1967	10	0	10	51%	1959	9	56%	43%
1968	11	0	11	53%	1976	9	57%	43%
1969	16	0	16	82%	1927	9	58%	43%
1970	10	0	10	50%	1944	8	59%	42%
1971	7	0	7	37%	1962	8	60%	42%
1972	10	0	10	48%	1974	8	62%	41%
1973	11	0	11	54%	1954	8	63%	41%
1974	8	0	8	41%	1966	8	64%	41%
1975	9	0	9	47%	1949	8	65%	40%
1976	9	0	9	43%	1963	8	67%	39%
1977	2	0	2	8%	1939	8	68%	39%
1978	13	0	13	67%	1960	8	69%	38%
1979	11	0	11	53%	1985	8	70%	38%
1980	14	0	14	68%	1961	8	72%	38%
1981	6	0	6	31%	1999	8	73%	38%
1982	15	0	15	74%	1926	7	74%	37%
1983	16	0	16	82%	1971	7	75%	37%
1984	13	0	13	66%	1947	7	77%	36%
1985	8	0	8	38%	1932	6	78%	32%
1986	14	0	14	70%	1957	6	79%	32%
1987	6	0	6	30%	1981	6	80%	31%
1988	3	0	3	15%	1955	6	81%	30%
1989	11	0	11	57%	1965	6	83%	30%
1990	5	0	5	25%	1987	6	84%	30%
1991	3	0	3	14%	1934	6	85%	28%
1992	4	0	4	18%	1953	5	86%	25%
1993	9	0	9	45%	1946	5	88%	25%
1994	10	0	10	52%	1990	5	89%	25%
1995	12	0	12	58%	2001	4	90%	19%
1996	12	0	12	58%	1933	4	91%	18%
1997	14	0	14	68%	1924	4	93%	18%
1998	12	0	12	62%	1992	4	94%	18%
1999	8	0	8	38%	1931	3	95%	17%
2000	10	0	10	49%	1929	3	96%	17%
2001	4	0	4	19%	1988	3	98%	15%
2002	10	0	10	51%	1991	3	99%	14%
2003	15	0	15	74%	1977	2	100%	8%
Average	9	0	9	45%		9		45%
Maximum	16	0	16	82%		16		82%
Minimum	2	0	2	8%		2		8%



Appendix E:

Existing Conveyance Low Outflow Scenario

Introduction

This appendix is a supplemental document to provide information on Existing Conveyance Low Outflow Scenario which is an alternative to the Delivery Capability Report (DCR) of 2015. This document presents a brief description of the model assumptions, updates, and state water project (SWP) contractor deliveries. The following items are discussed:

- Model assumptions
- Simulation results
 - Annual delivery for Table A, Article 56, and Article 21
 - SWP contractor annual deliveries

Overview of Model Assumptions

Chapter 9 of the Bay Delta Conservation Plan Draft EIR/EIS introduces the Existing Conveyance Low Outflow scenario:

http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_Chapter_9_-_Alternatives_to_Take.sflb.ashx

Existing Conveyance Low Outflow Scenario assumes the following costs for the state and federal water contractors:

- Operation of existing south of Delta conveyance facilities without BDCP
- South Delta operating restrictions (Scenario 6)
- Early Long-Term climate change conditions (2025) with sea level rise of 15 cm

Table E.1. CalSim II Modeling Assumptions for 2015 DCR ECLO

	ECLO Assumptions ¹
Planning Horizon	2025
Period of Simulation	82 years (1922-2003)
HYDROLOGY	
Level of Development (land use)	2030 Level ²
Climate Change	ELT (2025 emission level + 15 cm SLR)
DEMANDS	
North of Delta (excluding the American River)	
CVP	Land-use based, full build-out of contract amounts ³
SWP (FRSA)	Land-use based, limited by contract amounts ^{4, 7}
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities
Antioch Water Works	Pre-1914 water right
Federal refuges	Firm Level 2 water needs ⁵
American River Basin	
Water rights	Year 2025, full water rights ⁶
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶
San Joaquin River Basin⁸	
Friant Unit	Limited by contract amounts, based on current allocation policy
Lower basin	Land-use based, based on district level operations and constraints
Stanislaus River basin ^{9, 17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index
South of Delta	
CVP	Demand based on contract amounts ³
Federal refuges	Firm Level 2 water needs ⁵
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰
SWP ^{4, 11}	Demand based on full Table A amounts (4.13 MAF/yr)
Article 56	Based on 2001-2008 contractor requests
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵

ECLO Assumptions ¹	
FACILITIES	
System-wide	Existing facilities
Sacramento Valley	
Shasta Lake	Existing, 4,552 TAF capacity
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place
Colusa Basin	Existing conveyance and storage facilities
Lower American River	Hodge criteria for diversion at Fairbairn
Upper American River	PCWA American River pump station
Lower Sacramento River	Freeport Regional Water Project
Fremont Weir	Existing Weir
Delta Export Conveyance	
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs, permitted capacity is 6,680 cfs in all months and up to 8,500 cfs during Dec 15 th - Mar 15 th depending on Vernalis flow conditions ¹⁸ ; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul-Sep for reducing impact of NMFS BO (Jun 2009) Action IV.2.1 ¹⁷ on SWP ¹⁹
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³
San Joaquin River	
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity
South of Delta (CVP/SWP project facilities)	
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point
California Aqueduct East Branch	Existing capacity
REGULATORY STANDARDS	
Trinity River	
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF/yr as able)

ECLO Assumptions ¹	
Clear Creek	
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷
Upper Sacramento River	
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷
Feather River	
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)
Yuba River	
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴
American River	
Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1 ¹⁷
Minimum flow at H Street Bridge	SWRCB D-893
Lower Sacramento River	
Minimum flow near Rio Vista	SWRCB D-1641
Mokelumne River	
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100 – 325 cfs)
Minimum flow below Woodbridge Diversion Dam	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement Agreement) (25 – 300 cfs)
Stanislaus River	
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
Minimum dissolved oxygen	SWRCB D-1422

ECLO Assumptions ¹	
Merced River	
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 cfs, Nov – Mar), and Cowell Agreement
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25 – 100 cfs)
Tuolumne River	
Minimum flow at Lagrange Bridge	Federal Energy Regulatory Commission 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/yr)
Updated Tuolumne River	New Don Pedro operations
San Joaquin River	
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows
Maximum salinity near Vernalis	SWRCB D-1641
Minimum flow near Vernalis	SWRCB D1641. VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water
Sacramento-San Joaquin Delta	
Delta Outflow Index (flow and salinity)	Excludes FWS BO Fall X2 Outflow Requirements
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹
Combined Flow in Old and Middle River (OMR)	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{22, 23}
OPERATIONS CRITERIA: RIVER-SPECIFIC	
Upper Sacramento River	
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250 – 5,000 cfs based on CVP water supply condition
American River	
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)
Feather River	
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr - Sep dependent on Oroville inflow and FRSA allocation
Stanislaus River	
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷

ECLO Assumptions ¹	
San Joaquin River	
Salinity at Vernalis	Grasslands Bypass Project (full implementation)
OPERATIONS CRITERIA: SYSTEMWIDE	
CVP Water Allocation	
CVP settlement and exchange	100% (75% in Shasta critical years)
CVP refuges	100% (75% in Shasta critical years)
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
SWP Water Allocation	
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
CVP/SWP Coordinated Operations	
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)
Sharing of surplus flows	1986 Coordinated Operations Agreement
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF
CVPIA 3406(b)(2)	
Policy decision	Per May 2003 Department of Interior decision
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO

ECLO Assumptions ¹	
	(Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting
WATER MANAGEMENT ACTIONS	
Water Transfer Supplies (long term programs)	
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP
Phase 8	None
Water Transfers (short term or temporary programs)	
Sacramento Valley acquisitions conveyed through Banks PP ²¹	Post analysis of available capacity

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.
- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.

- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.
- ¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.
- ²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.
- ²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.
- ²² Scenario 6 OMR Operations. Jan: 0 (W), -3500 (AN), -4000 (BN), -5000 (D, C); Feb: 0 (W), -3500 (AN), -4000 (BN, D, C); Mar: 0 (W, AN), -3500 (AN, BN, D, C); Apr - Jun: Varies based on San Joaquin inflow relationship to OMR; Jul - Sep: No Restrictions; Oct - Nov: Varies based SJR pulse flow condition; Dec: -5000 when north Delta initial pulse flows are triggered or -2000 when delta smelt action 1 triggers; HORB opening is restricted.
- ²³ BDCP Scenario 6 represents a set of proposed operations, which include operating criteria for North Delta diversion bypass flows, South Delta channel flows, HORB operations, Fremont Weir/Yolo Bypass inundation, DCC Gate operations, Rio Vista minimum flows, Water Quality and Residence Time and Ag/M&I water quality requirements. The ECLO and ECHO studies adopt some Scenario 6 operating criteria for South Delta Operating Restrictions, primarily regarding OMR flows and HORB.

Key:

ACOE = Army Corps of Engineers
Ag = agricultural
BDGP = Bay-Delta Conservation Plan
BO = Biological Opinion
CALFED = CALFED Bay-Delta Program
CCWD = Contra Costa Water District
cfs = cubic feet per second
CVP = Central Valley Project
CVPIA = Central Valley Project Improvement Act
D-xxxx = Water Right Decision
DFG = California Department of Fish and Game
DMC = Delta-Mendota canal
DWR = California Department of Water Resources
EBMUD = East Bay Municipal Utility District
EIS = Environmental Impact Statement
ELT = Early Long-Term
FC&WSD = Flood Control and Water Service District
FERC = Federal Energy Regulatory Commission
FRSA = Feather River Service Area
FRWP = Freeport Regional Water Project
FWS = Fish and Wildlife Service
KCWA = Kern County Water Agency
LOD = Level of Development
LYRA = Lower Yuba River Accord
MAF/yr = million acre-feet per year
M&I = municipal and industrial
MWD = Metropolitan Water District
NAA = No Action Alternative
NEPA = National Environmental Policy Act
NMFS = National Marine Fisheries Service
NPS = National Park Service
PCWA = Placer County Water Agency
PP = Pumping Plant
Reclamation = United States Department of the Interior, Bureau of Reclamation
ROD = Record of Decision
SBA = South Bay Aqueduct
SLR = Sea Level Rise
SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year

Simulation Results for 2015 DCR ECLO

The deliveries shown in this report only include those State Water Contractors that rely on delivery of water from the Sacramento-San Joaquin Delta; therefore, State Water Contractors in the Feather River area and upstream (i.e., Butte County, Plumas County Flood Control and Water Conservation District, and Yuba City) are excluded from this analysis. This section of the appendix presents results for the DCR 2015 ECLO scenario.

SWP Table A Deliveries

Figure E.1 shows the comparison of SWP Table A delivery exceedence curves between the 2015 DCR ELT and 2015 DCR ECLO studies. The Table A deliveries for State Water Contractors 2015 DCR ECLO are shown in Table E.2 on the following page. The results for individual Contractor Table A deliveries are included at the end of this appendix.

Figure E.1. Comparison of SWP Table A delivery probability between 2015 DCR ELT and 2015 DCR ECLO

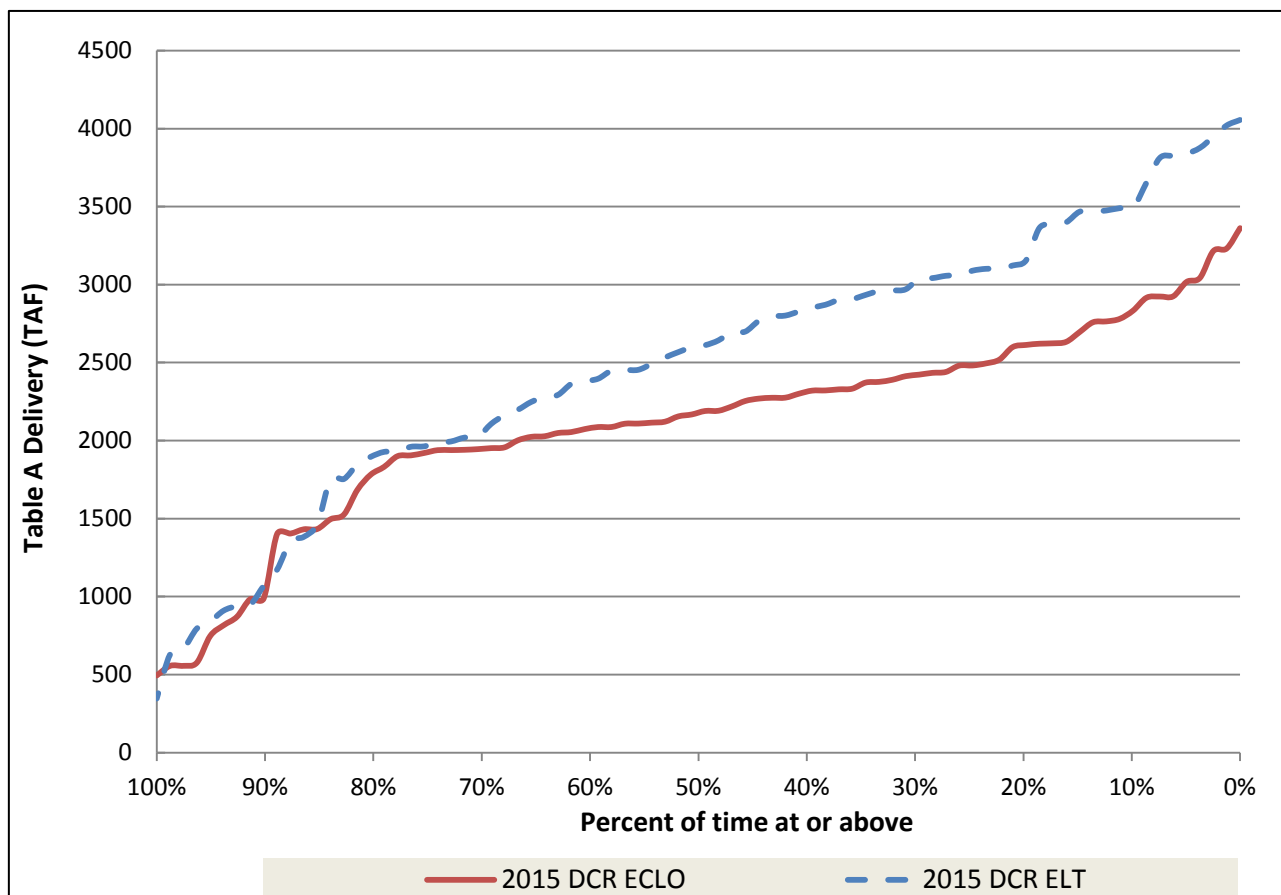


Table E.2. SWP Table A Deliveries for 2015 DCR ECLO

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1922	4,133	1,939	47%	1983	3,362	0%	81%
1923	4,133	2,377	58%	1938	3,232	1%	78%
1924	4,133	577	14%	1969	3,215	2%	78%
1925	4,133	2,121	51%	1986	3,043	4%	74%
1926	4,133	1,684	41%	1980	3,017	5%	73%
1927	4,133	1,832	44%	1997	2,925	6%	71%
1928	4,133	2,390	58%	1984	2,924	7%	71%
1929	4,133	816	20%	1982	2,916	9%	71%
1930	4,133	2,074	50%	1998	2,833	10%	69%
1931	4,133	748	18%	1937	2,780	11%	67%
1932	4,133	1,433	35%	1943	2,764	12%	67%
1933	4,133	1,496	36%	1970	2,759	14%	67%
1934	4,133	989	24%	1956	2,696	15%	65%
1935	4,133	2,435	59%	1941	2,633	16%	64%
1936	4,133	2,519	61%	1951	2,624	17%	63%
1937	4,133	2,780	67%	1978	2,621	19%	63%
1938	4,133	3,232	78%	1996	2,613	20%	63%
1939	4,133	2,191	53%	1979	2,600	21%	63%
1940	4,133	2,168	52%	1936	2,519	22%	61%
1941	4,133	2,633	64%	1966	2,495	23%	60%
1942	4,133	2,115	51%	2000	2,482	25%	60%
1943	4,133	2,764	67%	1958	2,481	26%	60%
1944	4,133	2,002	48%	1972	2,440	27%	59%
1945	4,133	2,300	56%	1935	2,435	28%	59%
1946	4,133	2,269	55%	1989	2,423	30%	59%
1947	4,133	1,905	46%	1995	2,413	31%	58%
1948	4,133	1,952	47%	1928	2,390	32%	58%
1949	4,133	1,526	37%	1923	2,377	33%	58%
1950	4,133	2,190	53%	1952	2,372	35%	57%
1951	4,133	2,624	63%	1968	2,333	36%	56%
1952	4,133	2,372	57%	1965	2,329	37%	56%
1953	4,133	2,087	51%	1999	2,322	38%	56%
1954	4,133	1,939	47%	1967	2,321	40%	56%
1955	4,133	1,782	43%	1945	2,300	41%	56%
1956	4,133	2,696	65%	1985	2,275	42%	55%
1957	4,133	2,024	49%	1964	2,275	43%	55%
1958	4,133	2,481	60%	1946	2,269	44%	55%
1959	4,133	2,254	55%	1959	2,254	46%	55%
1960	4,133	1,957	47%	1973	2,219	47%	54%
1961	4,133	1,404	34%	1939	2,191	48%	53%
1962	4,133	2,028	49%	1950	2,190	49%	53%
1963	4,133	1,945	47%	1940	2,168	51%	52%
1964	4,133	2,275	55%	1975	2,155	52%	52%

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1965	4,133	2,329	56%	1925	2,121	53%	51%
1966	4,133	2,495	60%	1942	2,115	54%	51%
1967	4,133	2,321	56%	1993	2,109	56%	51%
1968	4,133	2,333	56%	1976	2,108	57%	51%
1969	4,133	3,215	78%	1953	2,087	58%	51%
1970	4,133	2,759	67%	2003	2,087	59%	50%
1971	4,133	1,921	46%	1930	2,074	60%	50%
1972	4,133	2,440	59%	1981	2,055	62%	50%
1973	4,133	2,219	54%	1974	2,049	63%	50%
1974	4,133	2,049	50%	1962	2,028	64%	49%
1975	4,133	2,155	52%	1957	2,024	65%	49%
1976	4,133	2,108	51%	1944	2,002	67%	48%
1977	4,133	556	13%	1960	1,957	68%	47%
1978	4,133	2,621	63%	1948	1,952	69%	47%
1979	4,133	2,600	63%	1963	1,945	70%	47%
1980	4,133	3,017	73%	2002	1,941	72%	47%
1981	4,133	2,055	50%	1954	1,939	73%	47%
1982	4,133	2,916	71%	1922	1,939	74%	47%
1983	4,133	3,362	81%	1971	1,921	75%	46%
1984	4,133	2,924	71%	1947	1,905	77%	46%
1985	4,133	2,275	55%	1994	1,900	78%	46%
1986	4,133	3,043	74%	1927	1,832	79%	44%
1987	4,133	1,402	34%	1955	1,782	80%	43%
1988	4,133	556	13%	1926	1,684	81%	41%
1989	4,133	2,423	59%	1949	1,526	83%	37%
1990	4,133	984	24%	1933	1,496	84%	36%
1991	4,133	495	12%	1932	1,433	85%	35%
1992	4,133	871	21%	2001	1,432	86%	35%
1993	4,133	2,109	51%	1961	1,404	88%	34%
1994	4,133	1,900	46%	1987	1,402	89%	34%
1995	4,133	2,413	58%	1934	989	90%	24%
1996	4,133	2,613	63%	1990	984	91%	24%
1997	4,133	2,925	71%	1992	871	93%	21%
1998	4,133	2,833	69%	1929	816	94%	20%
1999	4,133	2,322	56%	1931	748	95%	18%
2000	4,133	2,482	60%	1924	577	96%	14%
2001	4,133	1,432	35%	1977	556	98%	13%
2002	4,133	1,941	47%	1988	556	99%	13%
2003	4,133	2,087	50%	1991	495	100%	12%
Average	4,133	2,108	51%	Average	2,108		51%
Minimum	4,133	495	12%	Minimum	495		12%
Maximum	4,133	3,362	81%	Maximum	3,362		81%

Article 21 Deliveries

Table E.3 below shows the State Water Contractors' Article 21 deliveries for the DCR 2015 ECLO scenario.

Table E.3. Article 21 Deliveries for 2015 DCR ECLO

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										1	2	2	5
1922	2	2	2	2	0	0	0	0	0	0	2	2	13
1923	2	2	2	2	1	1	0	2	0	2	2	0	16
1924	2	2	0	0	0	0	2	2	0	0	0	2	10
1925	2	2	2	2	2	0	0	2	0	0	0	0	12
1926	2	2	0	2	0	0	2	2	0	0	2	2	14
1927	2	2	2	2	0	0	2	0	0	0	2	2	14
1928	2	2	2	2	0	1	2	0	0	0	2	2	15
1929	2	2	2	2	0	0	0	2	0	0	0	2	12
1930	2	2	2	2	0	0	0	2	0	0	0	0	10
1931	2	2	2	0	0	0	0	2	0	0	0	2	10
1932	2	2	2	2	2	0	0	2	0	0	0	0	12
1933	2	2	2	2	2	0	0	0	0	0	0	2	12
1934	2	2	0	0	0	0	0	2	0	0	2	2	10
1935	2	2	2	2	2	0	0	2	0	0	2	0	14
1936	2	2	2	2	1	0	2	0	0	0	0	0	11
1937	2	2	51	2	2	0	0	0	0	0	2	2	63
1938	2	2	2	2	2	0	0	0	0	0	2	2	13
1939	2	2	2	0	1	1	2	0	0	0	0	0	11
1940	2	2	2	2	0	0	2	0	0	0	2	2	14
1941	2	2	2	2	0	0	0	0	0	0	2	2	13
1942	2	2	2	2	0	0	0	0	0	0	2	2	13
1943	2	2	2	2	0	0	2	0	0	0	0	0	11
1944	2	2	2	2	2	0	0	2	0	0	2	2	16
1945	2	2	2	2	1	0	0	0	0	1	2	2	14
1946	2	2	2	2	0	0	2	0	0	0	2	2	14
1947	2	2	2	2	2	0	0	2	0	2	2	0	16
1948	2	0	2	2	1	1	0	2	0	1	2	2	15
1949	2	2	2	2	2	0	0	2	0	0	0	0	12
1950	2	2	2	2	0	0	0	2	0	2	2	2	16
1951	2	2	2	2	0	0	2	0	0	0	2	2	14
1952	2	2	2	2	0	0	0	0	0	0	2	2	13
1953	2	2	2	2	0	0	0	0	0	0	2	2	13
1954	2	2	2	2	0	0	2	0	0	1	2	2	15
1955	2	2	2	2	2	0	0	2	0	0	2	2	16
1956	2	2	2	2	0	0	0	0	0	0	2	2	12
1957	2	2	2	2	0	0	2	0	0	1	2	2	15
1958	2	2	2	2	0	0	0	0	0	0	2	2	13
1959	2	2	2	2	0	0	2	0	0	0	0	0	10
1960	2	2	2	0	2	0	2	2	0	0	2	2	16
1961	2	2	2	0	2	0	0	2	0	0	2	2	14
1962	2	2	2	2	0	0	2	0	0	1	2	2	15
1963	2	2	2	2	0	0	2	0	0	0	2	2	14

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1964	2	2	2	2	2	0	0	2	0	0	2	2	16
1965	2	2	2	2	0	0	1	0	0	0	2	2	13
1966	2	2	2	2	0	0	2	0	0	0	2	2	14
1967	2	2	19	2	0	0	2	0	0	0	2	2	31
1968	2	2	2	2	1	0	2	0	0	0	2	2	15
1969	2	88	107	2	0	0	2	0	0	0	2	2	205
1970	2	2	2	2	0	0	2	0	0	0	2	2	14
1971	2	2	2	2	0	0	2	2	0	0	2	2	16
1972	2	2	2	2	1	0	2	0	0	2	2	2	17
1973	2	2	2	2	0	0	2	0	0	1	2	2	15
1974	2	2	2	2	0	0	0	0	0	0	2	2	12
1975	2	2	2	2	0	0	0	0	0	0	2	2	13
1976	2	2	2	2	2	2	2	0	2	0	0	0	16
1977	2	0	0	0	0	0	0	0	0	0	0	2	4
1978	2	2	2	2	0	0	0	0	0	0	2	2	13
1979	2	2	2	2	2	0	0	2	0	2	2	2	18
1980	2	2	84	2	0	0	0	0	0	0	0	2	93
1981	2	2	2	2	2	0	0	2	0	2	2	2	18
1982	2	2	2	2	0	0	0	0	0	0	2	2	12
1983	2	28	112	2	0	0	2	0	0	0	2	155	303
1984	191	80	2	2	0	0	2	0	0	0	2	2	281
1985	2	2	2	2	0	0	2	0	0	0	2	2	14
1986	2	2	44	2	0	0	2	0	0	0	0	2	54
1987	2	2	2	0	2	0	0	2	0	0	0	2	12
1988	2	0	0	2	0	0	0	2	0	0	2	2	10
1989	2	0	2	2	0	0	2	2	2	0	0	0	12
1990	2	2	2	0	2	0	0	2	0	0	0	0	10
1991	2	2	2	2	2	0	0	2	0	0	0	0	12
1992	2	2	2	2	0	0	0	2	0	0	0	2	12
1993	2	2	2	2	0	0	0	0	0	0	0	2	11
1994	2	2	2	2	2	0	2	2	0	0	0	2	16
1995	2	2	2	2	0	0	0	0	0	0	0	2	10
1996	2	2	2	2	0	0	0	2	0	0	2	2	14
1997	2	50	199	2	0	0	2	0	0	0	2	2	259
1998	2	2	2	2	0	0	0	0	0	0	2	2	13
1999	2	2	2	2	0	0	2	0	0	0	2	0	12
2000	2	2	2	2	0	0	2	0	0	0	1	0	11
2001	2	2	2	2	2	0	0	2	0	0	2	2	16
2002	2	2	2	2	2	0	2	2	0	0	2	2	18
2003	2	2	2	2	0	0	2	2	0				16
Average	4	5	9	2	1	0	1	1	0	0	1	3	28
Minimum	2	0	0	0	0	0	0	0	0	0	0	0	4
Maximum	191	88	199	2	2	2	2	2	2	2	2	155	303

SWP Exports from the Sacramento-San Joaquin Delta

Table E.4 below shows the SWP Exports from the Delta for the DCR 2015 ECLO scenario.

Table E.4. SWP Exports for 2015 DCR ECLO

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										86	181	344	611
1922	149	64	66	23	25	110	411	411	397	87	194	211	2,147
1923	73	162	154	37	18	18	411	307	397	88	187	329	2,181
1924	151	107	18	18	44	44	18	18	30	84	253	206	992
1925	183	71	138	25	18	106	411	65	289	85	183	218	1,792
1926	182	81	18	95	73	88	404	93	150	83	187	165	1,620
1927	129	146	47	18	43	83	406	411	397	88	190	212	2,170
1928	143	107	47	66	43	32	353	411	397	84	190	314	2,188
1929	136	137	118	47	45	37	18	18	40	65	74	200	936
1930	133	124	136	56	61	93	411	370	324	83	162	137	2,088
1931	185	136	50	18	18	18	18	18	22	82	115	225	905
1932	197	192	128	18	43	110	411	18	121	85	150	206	1,679
1933	200	235	106	45	46	18	18	18	37	83	144	202	1,153
1934	354	244	72	18	18	18	18	16	77	82	179	243	1,340
1935	191	146	128	18	43	140	411	364	397	86	205	243	2,371
1936	117	373	158	18	18	53	411	411	397	87	187	327	2,559
1937	164	461	385	81	18	114	411	352	164	86	189	260	2,685
1938	209	472	465	155	340	97	411	411	397	91	197	323	3,567
1939	44	142	79	40	43	50	411	366	127	85	110	251	1,747
1940	135	163	181	82	20	70	354	411	397	86	185	214	2,296
1941	182	325	212	92	99	52	411	411	397	89	198	228	2,694
1942	103	75	69	83	86	49	411	411	397	88	202	194	2,170
1943	235	85	430	88	22	19	402	411	397	88	193	305	2,673
1944	43	158	123	54	43	105	411	196	213	86	190	222	1,844
1945	193	273	195	18	18	108	411	411	311	90	190	299	2,516
1946	186	156	47	24	18	110	375	411	397	86	194	351	2,357
1947	145	144	132	79	64	95	385	18	147	85	185	163	1,642
1948	111	32	138	61	43	105	411	330	397	85	182	304	2,199
1949	149	139	96	52	43	98	286	18	169	84	138	144	1,414
1950	116	129	139	69	47	43	411	237	397	85	217	440	2,333
1951	447	297	51	18	18	70	328	411	397	85	182	174	2,479
1952	206	44	203	114	157	83	411	411	397	86	194	259	2,566
1953	49	43	47	55	18	108	411	298	397	85	188	209	1,909
1954	47	123	47	52	43	58	336	411	397	84	186	212	1,996
1955	151	138	137	104	47	50	411	73	183	82	198	420	1,994
1956	523	183	72	26	18	54	411	411	397	88	189	297	2,669
1957	43	89	47	25	21	65	347	411	397	87	184	218	1,935
1958	141	58	113	152	110	70	411	411	397	87	190	316	2,455
1959	44	139	145	56	43	95	410	411	397	84	148	160	2,132
1960	152	111	132	18	65	87	406	217	222	81	184	203	1,879
1961	190	99	136	43	47	50	236	18	154	63	194	181	1,411
1962	156	148	153	18	43	54	406	411	397	85	178	167	2,217
1963	132	43	51	18	43	91	331	411	397	86	192	314	2,110
1964	43	141	132	21	30	31	411	349	342	83	185	269	2,037
1965	396	64	48	75	32	70	407	411	397	86	214	427	2,626

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1966	49	160	142	59	43	95	382	411	397	82	184	181	2,187
1967	186	50	68	128	134	125	411	411	397	89	189	318	2,505
1968	43	112	145	55	43	94	404	411	397	84	185	240	2,215
1969	443	472	216	164	283	177	411	411	397	92	198	229	3,492
1970	473	76	74	31	43	103	411	411	397	87	192	182	2,480
1971	47	43	47	30	43	100	406	312	397	87	186	320	2,019
1972	42	104	126	92	69	92	411	411	397	85	193	231	2,253
1973	163	171	56	18	20	113	411	411	397	90	197	219	2,265
1974	187	43	47	18	19	47	411	411	397	90	198	334	2,202
1975	43	56	80	26	43	49	411	411	397	61	197	266	2,041
1976	43	144	128	42	44	42	406	407	397	83	126	124	1,986
1977	149	95	46	18	18	18	18	18	95	67	120	166	830
1978	172	181	73	107	94	50	411	411	397	84	194	299	2,474
1979	168	194	221	19	30	113	411	252	397	88	190	284	2,367
1980	443	485	358	23	65	67	411	411	397	88	186	216	3,152
1981	141	140	148	53	43	92	411	65	346	86	187	161	1,873
1982	222	204	263	364	150	53	411	411	397	112	397	472	3,458
1983	523	230	185	132	195	239	261	411	352	95	397	472	3,492
1984	373	171	79	18	18	113	397	411	371	93	204	203	2,452
1985	47	145	146	66	50	95	406	411	248	86	190	205	2,094
1986	117	472	465	106	72	51	411	411	397	92	236	303	3,134
1987	44	140	121	29	68	94	313	18	102	84	85	170	1,268
1988	132	17	109	48	49	50	102	18	80	22	182	256	1,069
1989	182	71	59	65	48	90	411	290	397	82	212	114	2,021
1990	177	130	107	18	49	50	121	18	113	63	78	110	1,035
1991	18	75	58	65	51	91	46	18	39	82	65	128	735
1992	58	81	113	42	43	111	18	18	99	18	129	206	938
1993	175	163	47	19	32	50	411	411	397	86	138	288	2,218
1994	134	137	110	37	48	50	411	74	223	81	195	201	1,701
1995	174	47	308	112	321	125	411	411	397	88	213	205	2,811
1996	35	239	219	19	28	49	411	352	397	89	207	472	2,518
1997	523	472	350	18	18	18	406	411	397	87	190	216	3,106
1998	67	472	235	114	132	179	411	411	397	94	327	190	3,028
1999	54	185	69	41	18	100	406	411	397	86	190	250	2,207
2000	47	350	87	35	18	104	350	411	397	89	174	301	2,366
2001	144	146	148	84	65	90	179	33	175	75	184	183	1,506
2002	190	139	140	42	43	69	402	68	207	81	155	221	1,756
2003	172	124	47	62	43	18	389	290	397				2,153
Average	167	165	135	57	58	78	348	289	310	83	186	247	2,123
Minimum	18	17	18	18	18	18	18	16	22	18	65	110	735
Maximum	523	485	465	364	340	239	411	411	397	112	397	472	3,567

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Individual Contractor Table A Deliveries - 2015 DCR ECLO

The tables on the following pages show the Table A deliveries for each State Water Contractor for the 2015 DCR ECLO scenario.

Table E.5. Alameda County FC&WCD-Zone 7: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	36	0	36	45%	1983	66	0%	82%
1923	45	1	46	57%	1938	65	1%	81%
1924	11	1	12	15%	1969	65	2%	81%
1925	40	0	40	50%	1986	62	4%	77%
1926	32	1	33	41%	1980	61	5%	76%
1927	34	1	35	43%	1982	59	6%	73%
1928	45	1	46	57%	1997	58	7%	72%
1929	16	1	17	21%	1984	57	9%	71%
1930	39	0	39	49%	1937	57	10%	70%
1931	15	1	16	19%	1943	56	11%	69%
1932	28	0	28	35%	1998	54	12%	67%
1933	29	0	29	36%	1956	54	14%	67%
1934	19	0	20	24%	1941	53	15%	65%
1935	46	0	46	57%	1996	52	16%	65%
1936	48	1	49	61%	1951	52	17%	64%
1937	55	1	57	70%	1970	51	19%	64%
1938	64	2	65	81%	1978	51	20%	64%
1939	39	2	41	50%	1979	50	21%	61%
1940	40	1	42	52%	1936	49	22%	61%
1941	52	1	53	65%	1989	49	23%	60%
1942	37	1	39	48%	2000	48	25%	60%
1943	55	0	56	69%	1966	48	26%	60%
1944	35	2	36	45%	1958	48	27%	59%
1945	43	1	44	55%	1972	47	28%	58%
1946	42	1	43	53%	1935	46	30%	57%
1947	41	1	42	52%	1928	46	31%	57%
1948	36	1	38	47%	1995	46	32%	57%
1949	29	1	30	38%	1923	46	33%	57%
1950	42	0	42	52%	1968	44	35%	55%
1951	51	1	52	64%	1964	44	36%	55%
1952	42	1	44	54%	1965	44	37%	55%
1953	39	1	40	50%	1945	44	38%	55%
1954	36	1	37	46%	1967	44	40%	55%
1955	34	1	35	43%	1952	44	41%	54%
1956	54	0	54	67%	2002	43	42%	53%
1957	35	2	36	45%	1946	43	43%	53%
1958	47	1	48	59%	1994	43	44%	53%
1959	42	1	43	53%	1959	43	46%	53%
1960	39	1	40	50%	1973	43	47%	53%
1961	29	1	30	38%	1999	42	48%	52%
1962	38	0	38	47%	2003	42	49%	52%
1963	36	1	37	46%	1947	42	51%	52%
1964	43	1	44	55%	1950	42	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	44	1	44	55%	1940	42	53%	52%
1966	48	1	48	60%	1975	41	54%	51%
1967	43	1	44	55%	1976	41	56%	51%
1968	44	1	44	55%	1985	41	57%	51%
1969	64	1	65	81%	1939	41	58%	50%
1970	50	2	51	64%	1925	40	59%	50%
1971	34	1	36	44%	1953	40	60%	50%
1972	46	1	47	58%	1960	40	62%	50%
1973	41	1	43	53%	1993	39	63%	49%
1974	38	1	39	48%	1930	39	64%	49%
1975	40	1	41	51%	1942	39	65%	48%
1976	40	1	41	51%	1974	39	67%	48%
1977	11	1	12	15%	1962	38	68%	47%
1978	51	0	51	64%	1948	38	69%	47%
1979	48	1	50	61%	1954	37	70%	46%
1980	60	1	61	76%	1963	37	72%	46%
1981	34	2	36	44%	1944	36	73%	45%
1982	58	1	59	73%	1957	36	74%	45%
1983	64	1	66	82%	1922	36	75%	45%
1984	57	1	57	71%	1971	36	77%	44%
1985	39	2	41	51%	1981	36	78%	44%
1986	61	1	62	77%	1955	35	79%	43%
1987	26	2	28	34%	1927	35	80%	43%
1988	11	0	11	13%	1926	33	81%	41%
1989	49	0	49	60%	1961	30	83%	38%
1990	19	1	21	26%	1949	30	84%	38%
1991	9	0	9	12%	1933	29	85%	36%
1992	17	0	17	21%	2001	28	86%	35%
1993	39	0	39	49%	1932	28	88%	35%
1994	42	1	43	53%	1987	28	89%	34%
1995	45	1	46	57%	1990	21	90%	26%
1996	51	1	52	65%	1934	20	91%	24%
1997	57	1	58	72%	1929	17	93%	21%
1998	53	2	54	67%	1992	17	94%	21%
1999	41	1	42	52%	1931	16	95%	19%
2000	47	1	48	60%	1924	12	96%	15%
2001	27	1	28	35%	1977	12	98%	15%
2002	43	0	43	53%	1988	11	99%	13%
2003	41	1	42	52%	1991	9	100%	12%
Average	40	1	41	51%		41		51%
Maximum	64	2	66	82%		66		82%
Minimum	9	0	9	12%		9		12%

Table E.6. Alameda County WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	19	0	19	46%	1969	35	0%	82%
1923	24	0	24	57%	1983	35	1%	82%
1924	6	0	6	14%	1938	34	2%	81%
1925	22	0	22	51%	1986	33	4%	78%
1926	17	0	17	40%	1980	32	5%	76%
1927	18	0	18	43%	1982	31	6%	74%
1928	24	0	24	57%	1997	30	7%	72%
1929	8	0	8	20%	1984	30	9%	72%
1930	21	0	21	50%	1937	30	10%	71%
1931	8	0	8	18%	1943	30	11%	70%
1932	15	0	15	35%	1956	29	12%	68%
1933	15	0	15	37%	1998	28	14%	67%
1934	10	0	10	24%	1941	28	15%	66%
1935	25	0	25	59%	1951	28	16%	66%
1936	26	0	26	61%	1978	27	17%	65%
1937	30	0	30	71%	1996	27	19%	65%
1938	34	0	34	81%	2003	27	20%	63%
1939	21	0	21	49%	1970	27	21%	63%
1940	22	0	22	52%	1989	26	22%	62%
1941	28	0	28	66%	1936	26	23%	61%
1942	20	0	20	48%	1979	26	25%	61%
1943	30	0	30	70%	1966	25	26%	61%
1944	19	0	19	44%	2000	25	27%	60%
1945	23	0	23	55%	1958	25	28%	60%
1946	23	0	23	54%	1935	25	30%	59%
1947	22	0	22	52%	1972	25	31%	59%
1948	20	0	20	46%	1995	24	32%	58%
1949	15	0	15	37%	1928	24	33%	57%
1950	22	0	22	53%	1923	24	35%	57%
1951	28	0	28	66%	1968	23	36%	56%
1952	23	0	23	54%	1965	23	37%	56%
1953	21	0	21	50%	1945	23	38%	55%
1954	19	0	19	46%	1964	23	40%	55%
1955	18	0	18	43%	2002	23	41%	55%
1956	29	0	29	68%	1967	23	42%	55%
1957	19	0	19	44%	1946	23	43%	54%
1958	25	0	25	60%	1952	23	44%	54%
1959	22	0	22	53%	1959	22	46%	53%
1960	21	0	21	50%	1994	22	47%	53%
1961	15	0	15	37%	1950	22	48%	53%
1962	20	0	20	48%	1973	22	49%	53%
1963	19	0	19	46%	1999	22	51%	52%
1964	23	0	23	55%	1947	22	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	23	0	23	56%	1940	22	53%	52%
1966	25	0	25	61%	1925	22	54%	51%
1967	23	0	23	55%	1975	22	56%	51%
1968	23	0	23	56%	1976	21	57%	51%
1969	35	0	35	82%	1985	21	58%	50%
1970	27	0	27	63%	1993	21	59%	50%
1971	18	0	18	44%	1930	21	60%	50%
1972	25	0	25	59%	1960	21	62%	50%
1973	22	0	22	53%	1953	21	63%	50%
1974	20	0	20	49%	1939	21	64%	49%
1975	22	0	22	51%	1974	20	65%	49%
1976	21	0	21	51%	1962	20	67%	48%
1977	6	0	6	13%	1942	20	68%	48%
1978	27	0	27	65%	1981	20	69%	47%
1979	26	0	26	61%	1948	20	70%	46%
1980	32	0	32	76%	1963	19	72%	46%
1981	20	0	20	47%	1954	19	73%	46%
1982	31	0	31	74%	1922	19	74%	46%
1983	35	0	35	82%	1944	19	75%	44%
1984	30	0	30	72%	1957	19	77%	44%
1985	21	0	21	50%	1971	18	78%	44%
1986	33	0	33	78%	1927	18	79%	43%
1987	13	0	13	32%	1955	18	80%	43%
1988	6	0	6	13%	1926	17	81%	40%
1989	26	0	26	62%	1961	15	83%	37%
1990	10	0	10	24%	1933	15	84%	37%
1991	5	0	5	12%	1949	15	85%	37%
1992	9	0	9	21%	1932	15	86%	35%
1993	21	0	21	50%	2001	14	88%	34%
1994	22	0	22	53%	1987	13	89%	32%
1995	24	0	24	58%	1990	10	90%	24%
1996	27	0	27	65%	1934	10	91%	24%
1997	30	0	30	72%	1992	9	93%	21%
1998	28	0	28	67%	1929	8	94%	20%
1999	22	0	22	52%	1931	8	95%	18%
2000	25	0	25	60%	1924	6	96%	14%
2001	14	0	14	34%	1988	6	98%	13%
2002	23	0	23	55%	1977	6	99%	13%
2003	27	0	27	63%	1991	5	100%	12%
Average	22	0	22	51%		22		51%
Maximum	35	0	35	82%		35		82%
Minimum	5	0	5	12%		5		12%

Table E.7. Antelope Valley-East Kern WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	65	0	65	46%	1969	116	0%	82%
1923	81	0	81	57%	1983	116	1%	82%
1924	19	0	19	14%	1938	115	2%	81%
1925	73	0	73	51%	1986	110	4%	78%
1926	57	0	57	40%	1980	108	5%	76%
1927	61	0	61	43%	1982	105	6%	74%
1928	81	0	81	57%	1997	102	7%	72%
1929	28	0	28	20%	1984	102	9%	72%
1930	71	0	71	50%	1937	100	10%	71%
1931	25	0	25	18%	1943	99	11%	70%
1932	49	0	49	35%	1956	97	12%	68%
1933	52	0	52	37%	1998	95	14%	67%
1934	34	0	34	24%	1941	93	15%	66%
1935	83	0	83	59%	1951	93	16%	66%
1936	87	0	87	61%	1978	93	17%	65%
1937	100	0	100	71%	1996	92	19%	65%
1938	115	0	115	81%	1970	89	20%	63%
1939	70	0	70	49%	1936	87	21%	61%
1940	73	0	73	52%	1979	87	22%	61%
1941	93	0	93	66%	1966	86	23%	61%
1942	67	0	67	48%	2000	85	25%	60%
1943	99	0	99	70%	1958	85	26%	60%
1944	63	0	63	44%	1935	83	27%	59%
1945	78	0	78	55%	1972	83	28%	59%
1946	77	0	77	54%	1995	82	30%	58%
1947	45	0	45	32%	1989	81	31%	57%
1948	66	0	66	46%	1928	81	32%	57%
1949	52	0	52	37%	1923	81	33%	57%
1950	75	0	75	53%	1968	79	35%	56%
1951	93	0	93	66%	1965	79	36%	56%
1952	76	0	76	54%	1945	78	37%	55%
1953	70	0	70	50%	1964	78	38%	55%
1954	65	0	65	46%	1967	77	40%	55%
1955	61	0	61	43%	1946	77	41%	54%
1956	97	0	97	68%	1952	76	42%	54%
1957	63	0	63	44%	1959	76	43%	53%
1958	85	0	85	60%	1950	75	44%	53%
1959	76	0	76	53%	1973	75	46%	53%
1960	69	0	69	49%	1999	74	47%	52%
1961	44	0	44	31%	1994	73	48%	52%
1962	68	0	68	48%	1940	73	49%	52%
1963	65	0	65	46%	1925	73	51%	51%
1964	78	0	78	55%	1975	72	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	79	0	79	56%	1976	72	53%	51%
1966	86	0	86	61%	1985	71	54%	50%
1967	77	0	77	55%	1993	71	56%	50%
1968	79	0	79	56%	1930	71	57%	50%
1969	116	0	116	82%	1953	70	58%	50%
1970	89	0	89	63%	1939	70	59%	49%
1971	62	0	62	44%	1960	69	60%	49%
1972	83	0	83	59%	1974	69	62%	49%
1973	75	0	75	53%	1962	68	63%	48%
1974	69	0	69	49%	1942	67	64%	48%
1975	72	0	72	51%	1948	66	65%	46%
1976	72	0	72	51%	1963	65	67%	46%
1977	19	0	19	13%	1954	65	68%	46%
1978	93	0	93	65%	1922	65	69%	46%
1979	87	0	87	61%	1944	63	70%	44%
1980	108	0	108	76%	1957	63	72%	44%
1981	60	0	60	42%	1971	62	73%	44%
1982	105	0	105	74%	1927	61	74%	43%
1983	116	0	116	82%	1955	61	75%	43%
1984	102	0	102	72%	1981	60	77%	42%
1985	71	0	71	50%	1926	57	78%	40%
1986	110	0	110	78%	2003	53	79%	38%
1987	39	0	39	28%	1933	52	80%	37%
1988	19	0	19	13%	1949	52	81%	37%
1989	81	0	81	57%	1932	49	83%	35%
1990	34	0	34	24%	2001	48	84%	34%
1991	17	0	17	12%	2002	47	85%	33%
1992	30	0	30	21%	1947	45	86%	32%
1993	71	0	71	50%	1961	44	88%	31%
1994	73	0	73	52%	1987	39	89%	28%
1995	82	0	82	58%	1990	34	90%	24%
1996	92	0	92	65%	1934	34	91%	24%
1997	102	0	102	72%	1992	30	93%	21%
1998	95	0	95	67%	1929	28	94%	20%
1999	74	0	74	52%	1931	25	95%	18%
2000	85	0	85	60%	1924	19	96%	14%
2001	48	0	48	34%	1988	19	98%	13%
2002	47	0	47	33%	1977	19	99%	13%
2003	53	0	53	38%	1991	17	100%	12%
Average	71	0	71	50%		71		50%
Maximum	116	0	116	82%		116		82%
Minimum	17	0	17	12%		17		12%

Table E.8. Castaic Lake WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	44	0	44	46%	1969	78	0%	82%
1923	54	0	54	57%	1969	78	1%	82%
1924	13	0	13	14%	1938	77	2%	81%
1925	49	0	49	51%	1986	74	4%	78%
1926	39	0	39	40%	1980	73	5%	76%
1927	41	0	41	43%	1982	71	6%	74%
1928	54	0	54	57%	1997	69	7%	72%
1929	19	0	19	20%	1984	69	9%	72%
1930	48	0	48	50%	1937	67	10%	71%
1931	17	0	17	18%	1943	67	11%	70%
1932	33	0	33	35%	1956	65	12%	68%
1933	35	0	35	37%	1998	64	14%	67%
1934	23	0	23	24%	1941	63	15%	66%
1935	56	0	56	59%	1951	62	16%	66%
1936	59	0	59	61%	1978	62	17%	65%
1937	67	0	67	71%	1996	62	19%	65%
1938	77	0	77	81%	1970	60	20%	63%
1939	45	0	45	48%	1936	59	21%	61%
1940	49	0	49	52%	1979	58	22%	61%
1941	63	0	63	66%	1989	58	23%	61%
1942	45	0	45	48%	1966	58	25%	61%
1943	67	0	67	70%	2000	57	26%	60%
1944	42	0	42	44%	1958	57	27%	60%
1945	52	0	52	55%	1935	56	28%	59%
1946	52	0	52	54%	1972	56	30%	59%
1947	47	0	47	49%	1995	55	31%	58%
1948	44	0	44	46%	1928	54	32%	57%
1949	35	0	35	37%	1923	54	33%	57%
1950	50	0	50	53%	1968	53	35%	56%
1951	62	0	62	66%	1965	53	36%	56%
1952	51	0	51	54%	1945	52	37%	55%
1953	47	0	47	50%	1964	52	38%	55%
1954	44	0	44	46%	1967	52	40%	55%
1955	41	0	41	43%	1946	52	41%	54%
1956	65	0	65	68%	1952	51	42%	54%
1957	42	0	42	44%	1959	51	43%	53%
1958	57	0	57	60%	1950	50	44%	53%
1959	51	0	51	53%	1973	50	46%	53%
1960	45	0	45	48%	2002	50	47%	52%
1961	33	0	33	34%	1999	50	48%	52%
1962	46	0	46	48%	1940	49	49%	52%
1963	44	0	44	46%	1925	49	51%	51%
1964	52	0	52	55%	1975	49	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	53	0	53	56%	1976	48	53%	51%
1966	58	0	58	61%	1994	48	54%	51%
1967	52	0	52	55%	1985	48	56%	50%
1968	53	0	53	56%	1993	48	57%	50%
1969	78	0	78	82%	1930	48	58%	50%
1970	60	0	60	63%	1953	47	59%	50%
1971	42	0	42	44%	1947	47	60%	49%
1972	56	0	56	59%	1974	46	62%	49%
1973	50	0	50	53%	1962	46	63%	48%
1974	46	0	46	49%	1939	45	64%	48%
1975	49	0	49	51%	1960	45	65%	48%
1976	48	0	48	51%	1942	45	67%	48%
1977	13	0	13	13%	1948	44	68%	46%
1978	62	0	62	65%	1981	44	69%	46%
1979	58	0	58	61%	1963	44	70%	46%
1980	73	0	73	76%	1954	44	72%	46%
1981	44	0	44	46%	1922	44	73%	46%
1982	71	0	71	74%	1944	42	74%	44%
1983	78	0	78	82%	1957	42	75%	44%
1984	69	0	69	72%	1971	42	77%	44%
1985	48	0	48	50%	1927	41	78%	43%
1986	74	0	74	78%	1955	41	79%	43%
1987	31	0	31	32%	2003	39	80%	41%
1988	13	0	13	13%	1926	39	81%	40%
1989	58	0	58	61%	1933	35	83%	37%
1990	22	0	22	23%	1949	35	84%	37%
1991	11	0	11	12%	1932	33	85%	35%
1992	20	0	20	21%	1961	33	86%	34%
1993	48	0	48	50%	2001	32	88%	34%
1994	48	0	48	51%	1987	31	89%	32%
1995	55	0	55	58%	1934	23	90%	24%
1996	62	0	62	65%	1990	22	91%	23%
1997	69	0	69	72%	1992	20	93%	21%
1998	64	0	64	67%	1929	19	94%	20%
1999	50	0	50	52%	1931	17	95%	18%
2000	57	0	57	60%	1924	13	96%	14%
2001	32	0	32	34%	1988	13	98%	13%
2002	50	0	50	52%	1977	13	99%	13%
2003	39	0	39	41%	1991	11	100%	12%
Average	48	0	48	51%		48		51%
Maximum	78	0	78	82%		78		82%
Minimum	11	0	11	12%		11		12%

Table E.9. Coachella Valley WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	64	0	64	46%	1983	112	0%	81%
1923	79	0	79	57%	1938	108	1%	78%
1924	19	0	19	14%	1969	106	2%	76%
1925	71	0	71	51%	1986	100	4%	72%
1926	56	0	56	40%	1980	99	5%	72%
1927	60	0	60	43%	1997	97	6%	70%
1928	79	0	79	57%	1984	96	7%	70%
1929	27	0	27	20%	1982	95	9%	69%
1930	69	0	69	50%	1998	94	10%	68%
1931	25	0	25	18%	1970	93	11%	67%
1932	48	0	48	35%	1937	92	12%	67%
1933	51	0	51	37%	1943	90	14%	65%
1934	33	0	33	24%	1956	88	15%	64%
1935	82	0	82	59%	1979	88	16%	64%
1936	83	0	83	60%	1941	86	17%	62%
1937	91	2	92	67%	1951	86	19%	62%
1938	104	4	108	78%	1978	86	20%	62%
1939	68	8	76	55%	1996	86	21%	62%
1940	71	0	71	52%	1989	84	22%	61%
1941	86	0	86	62%	1936	83	23%	60%
1942	66	5	71	51%	1966	83	25%	60%
1943	90	0	90	65%	2000	82	26%	59%
1944	61	7	68	49%	1958	82	27%	59%
1945	76	0	76	55%	1935	82	28%	59%
1946	75	0	75	54%	1972	81	30%	59%
1947	72	0	72	52%	1995	80	31%	58%
1948	64	0	64	46%	1952	79	32%	57%
1949	51	0	51	37%	1928	79	33%	57%
1950	73	0	73	53%	1923	79	35%	57%
1951	86	0	86	62%	1999	78	36%	56%
1952	75	4	79	57%	1968	77	37%	56%
1953	69	0	69	50%	1967	77	38%	56%
1954	64	0	64	46%	1965	77	40%	56%
1955	59	0	59	43%	1985	77	41%	55%
1956	88	0	88	64%	1939	76	42%	55%
1957	61	7	68	49%	1945	76	43%	55%
1958	82	0	82	59%	1964	76	44%	55%
1959	74	1	75	54%	2002	76	46%	55%
1960	69	0	69	50%	1946	75	47%	54%
1961	51	0	51	37%	1959	75	48%	54%
1962	67	0	67	48%	1994	74	49%	53%
1963	64	0	64	46%	1950	73	51%	53%
1964	76	0	76	55%	1973	73	52%	53%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	77	0	77	56%	1981	73	53%	53%
1966	83	0	83	60%	1947	72	54%	52%
1967	76	1	77	56%	1940	71	56%	52%
1968	77	0	77	56%	1925	71	57%	51%
1969	106	0	106	76%	1975	71	58%	51%
1970	84	8	93	67%	1942	71	59%	51%
1971	60	3	63	46%	1976	70	60%	51%
1972	81	0	81	59%	1993	70	62%	50%
1973	73	0	73	53%	1930	69	63%	50%
1974	67	0	67	49%	1960	69	64%	50%
1975	71	0	71	51%	1953	69	65%	50%
1976	70	0	70	51%	1944	68	67%	49%
1977	18	0	18	13%	1957	68	68%	49%
1978	86	0	86	62%	1974	67	69%	49%
1979	84	4	88	64%	1962	67	70%	48%
1980	98	1	99	72%	1948	64	72%	46%
1981	65	8	73	53%	1963	64	73%	46%
1982	95	0	95	69%	1954	64	74%	46%
1983	106	6	112	81%	1922	64	75%	46%
1984	93	4	96	70%	1971	63	77%	46%
1985	70	7	77	55%	2003	63	78%	46%
1986	100	0	100	72%	1927	60	79%	43%
1987	44	8	52	38%	1955	59	80%	43%
1988	18	0	18	13%	1926	56	81%	40%
1989	84	0	84	61%	1987	52	83%	38%
1990	33	2	35	25%	1961	51	84%	37%
1991	16	0	16	12%	1933	51	85%	37%
1992	29	0	29	21%	1949	51	86%	37%
1993	70	0	70	50%	1932	48	88%	35%
1994	74	0	74	53%	2001	48	89%	34%
1995	80	0	80	58%	1990	35	90%	25%
1996	86	0	86	62%	1934	33	91%	24%
1997	93	4	97	70%	1992	29	93%	21%
1998	87	7	94	68%	1929	27	94%	20%
1999	72	6	78	56%	1931	25	95%	18%
2000	82	0	82	59%	1924	19	96%	14%
2001	47	1	48	34%	1988	18	98%	13%
2002	76	0	76	55%	1977	18	99%	13%
2003	63	0	63	46%	1991	16	100%	12%
Average	69	1	71	51%		71		51%
Maximum	106	8	112	81%		112		81%
Minimum	16	0	16	12%		16		12%

Table E.10. County of Kings: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	4	0	4	46%	1969	8	0%	82%
1923	5	0	5	57%	1969	8	1%	82%
1924	1	0	1	14%	1938	8	2%	81%
1925	5	0	5	51%	1986	7	4%	78%
1926	4	0	4	40%	1980	7	5%	76%
1927	4	0	4	43%	1982	7	6%	74%
1928	5	0	5	57%	1997	7	7%	72%
1929	2	0	2	20%	1984	7	9%	72%
1930	5	0	5	50%	1937	7	10%	71%
1931	2	0	2	18%	1943	7	11%	70%
1932	3	0	3	35%	1956	6	12%	68%
1933	3	0	3	37%	1998	6	14%	67%
1934	2	0	2	24%	1941	6	15%	66%
1935	5	0	5	59%	1951	6	16%	66%
1936	6	0	6	61%	1978	6	17%	65%
1937	7	0	7	71%	1996	6	19%	65%
1938	8	0	8	81%	1970	6	20%	63%
1939	3	0	3	31%	1936	6	21%	61%
1940	5	0	5	52%	1979	6	22%	61%
1941	6	0	6	66%	1966	6	23%	61%
1942	4	0	4	48%	2000	6	25%	60%
1943	7	0	7	70%	1958	6	26%	60%
1944	4	0	4	44%	1935	5	27%	59%
1945	5	0	5	55%	1972	5	28%	59%
1946	5	0	5	54%	1995	5	30%	58%
1947	2	0	2	26%	1928	5	31%	57%
1948	4	0	4	46%	1923	5	32%	57%
1949	3	0	3	37%	1968	5	33%	56%
1950	5	0	5	53%	1965	5	35%	56%
1951	6	0	6	66%	1945	5	36%	55%
1952	5	0	5	54%	1964	5	37%	55%
1953	5	0	5	50%	1967	5	38%	55%
1954	4	0	4	46%	1989	5	40%	54%
1955	4	0	4	43%	1946	5	41%	54%
1956	6	0	6	68%	1952	5	42%	54%
1957	4	0	4	44%	1959	5	43%	53%
1958	6	0	6	60%	1950	5	44%	53%
1959	5	0	5	53%	1973	5	46%	53%
1960	3	0	3	31%	1999	5	47%	52%
1961	1	0	1	14%	1940	5	48%	52%
1962	5	0	5	48%	1925	5	49%	51%
1963	4	0	4	46%	1975	5	51%	51%
1964	5	0	5	55%	1976	5	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	5	0	5	56%	1985	5	53%	50%
1966	6	0	6	61%	1993	5	54%	50%
1967	5	0	5	55%	1930	5	56%	50%
1968	5	0	5	56%	1953	5	57%	50%
1969	8	0	8	82%	1974	5	58%	49%
1970	6	0	6	63%	1962	5	59%	48%
1971	4	0	4	44%	1942	4	60%	48%
1972	5	0	5	59%	1948	4	62%	46%
1973	5	0	5	53%	1963	4	63%	46%
1974	5	0	5	49%	1954	4	64%	46%
1975	5	0	5	51%	1922	4	65%	46%
1976	5	0	5	51%	1944	4	67%	44%
1977	1	0	1	13%	1957	4	68%	44%
1978	6	0	6	65%	1971	4	69%	44%
1979	6	0	6	61%	1927	4	70%	43%
1980	7	0	7	76%	1955	4	72%	43%
1981	4	0	4	38%	1926	4	73%	40%
1982	7	0	7	74%	1981	4	74%	38%
1983	8	0	8	82%	2003	4	75%	38%
1984	7	0	7	72%	1933	3	77%	37%
1985	5	0	5	50%	1949	3	78%	37%
1986	7	0	7	78%	1932	3	79%	35%
1987	3	0	3	32%	2001	3	80%	34%
1988	1	0	1	13%	1987	3	81%	32%
1989	5	0	5	54%	1960	3	83%	31%
1990	1	0	1	13%	1939	3	84%	31%
1991	1	0	1	12%	2002	3	85%	27%
1992	2	0	2	21%	1994	2	86%	27%
1993	5	0	5	50%	1947	2	88%	26%
1994	2	0	2	27%	1934	2	89%	24%
1995	5	0	5	58%	1992	2	90%	21%
1996	6	0	6	65%	1929	2	91%	20%
1997	7	0	7	72%	1931	2	93%	18%
1998	6	0	6	67%	1961	1	94%	14%
1999	5	0	5	52%	1924	1	95%	14%
2000	6	0	6	60%	1988	1	96%	13%
2001	3	0	3	34%	1977	1	98%	13%
2002	3	0	3	27%	1990	1	99%	13%
2003	4	0	4	38%	1991	1	100%	12%
Average	5	0	5	49%		5		49%
Maximum	8	0	8	82%		8		82%
Minimum	1	0	1	12%		1		12%

Table E.11. Crestline-Lake Arrowhead WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	3	0	3	46%	1983	5	0%	82%
1923	3	0	3	57%	1969	5	1%	82%
1924	1	0	1	14%	1938	5	2%	81%
1925	3	0	3	51%	1986	5	4%	78%
1926	2	0	2	40%	1980	4	5%	76%
1927	3	0	3	43%	1982	4	6%	74%
1928	3	0	3	57%	1997	4	7%	72%
1929	1	0	1	20%	1984	4	9%	72%
1930	3	0	3	50%	1937	4	10%	71%
1931	1	0	1	18%	1943	4	11%	70%
1932	2	0	2	35%	1956	4	12%	68%
1933	2	0	2	37%	1998	4	14%	67%
1934	1	0	1	24%	1941	4	15%	66%
1935	3	0	3	59%	1951	4	16%	66%
1936	4	0	4	61%	1978	4	17%	65%
1937	4	0	4	71%	1996	4	19%	65%
1938	5	0	5	81%	1970	4	20%	63%
1939	3	0	3	49%	1989	4	21%	62%
1940	3	0	3	52%	1936	4	22%	61%
1941	4	0	4	66%	1979	4	23%	61%
1942	3	0	3	48%	1966	4	25%	61%
1943	4	0	4	70%	2000	3	26%	60%
1944	3	0	3	44%	1958	3	27%	60%
1945	3	0	3	55%	1935	3	28%	59%
1946	3	0	3	54%	1972	3	30%	59%
1947	3	0	3	52%	2003	3	31%	58%
1948	3	0	3	46%	1995	3	32%	58%
1949	2	0	2	37%	1928	3	33%	57%
1950	3	0	3	53%	1923	3	35%	57%
1951	4	0	4	66%	1968	3	36%	56%
1952	3	0	3	54%	1965	3	37%	56%
1953	3	0	3	50%	1945	3	38%	55%
1954	3	0	3	46%	1964	3	40%	55%
1955	2	0	2	43%	2002	3	41%	55%
1956	4	0	4	68%	1967	3	42%	55%
1957	3	0	3	44%	1946	3	43%	54%
1958	3	0	3	60%	1952	3	44%	54%
1959	3	0	3	53%	1959	3	46%	53%
1960	3	0	3	50%	1994	3	47%	53%
1961	2	0	2	37%	1950	3	48%	53%
1962	3	0	3	48%	1973	3	49%	53%
1963	3	0	3	46%	1999	3	51%	52%
1964	3	0	3	55%	1947	3	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	3	0	3	56%	1940	3	53%	52%
1966	4	0	4	61%	1925	3	54%	51%
1967	3	0	3	55%	1975	3	56%	51%
1968	3	0	3	56%	1976	3	57%	51%
1969	5	0	5	82%	1985	3	58%	50%
1970	4	0	4	63%	1993	3	59%	50%
1971	3	0	3	44%	1930	3	60%	50%
1972	3	0	3	59%	1960	3	62%	50%
1973	3	0	3	53%	1953	3	63%	50%
1974	3	0	3	49%	1939	3	64%	49%
1975	3	0	3	51%	1974	3	65%	49%
1976	3	0	3	51%	1962	3	67%	48%
1977	1	0	1	13%	1942	3	68%	48%
1978	4	0	4	65%	1981	3	69%	47%
1979	4	0	4	61%	1948	3	70%	46%
1980	4	0	4	76%	1963	3	72%	46%
1981	3	0	3	47%	1954	3	73%	46%
1982	4	0	4	74%	1922	3	74%	46%
1983	5	0	5	82%	1944	3	75%	44%
1984	4	0	4	72%	1957	3	77%	44%
1985	3	0	3	50%	1971	3	78%	44%
1986	5	0	5	78%	1927	3	79%	43%
1987	2	0	2	32%	1955	2	80%	43%
1988	1	0	1	13%	1926	2	81%	40%
1989	4	0	4	62%	1961	2	83%	37%
1990	1	0	1	24%	1933	2	84%	37%
1991	1	0	1	12%	1949	2	85%	37%
1992	1	0	1	21%	1932	2	86%	35%
1993	3	0	3	50%	2001	2	88%	34%
1994	3	0	3	53%	1987	2	89%	32%
1995	3	0	3	58%	1990	1	90%	24%
1996	4	0	4	65%	1934	1	91%	24%
1997	4	0	4	72%	1992	1	93%	21%
1998	4	0	4	67%	1929	1	94%	20%
1999	3	0	3	52%	1931	1	95%	18%
2000	3	0	3	60%	1924	1	96%	14%
2001	2	0	2	34%	1988	1	98%	13%
2002	3	0	3	55%	1977	1	99%	13%
2003	3	0	3	58%	1991	1	100%	12%
Average	3	0	3	51%		3		51%
Maximum	5	0	5	82%		5		82%
Minimum	1	0	1	12%		1		12%

Table E.12. Desert WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	26	0	26	46%	1983	42	0%	76%
1923	32	0	32	57%	1970	39	1%	70%
1924	8	0	8	14%	1938	37	2%	67%
1925	29	0	29	51%	1998	37	4%	66%
1926	23	0	23	40%	1985	37	5%	66%
1927	24	0	24	43%	1979	36	6%	65%
1928	32	0	32	57%	1984	36	7%	65%
1929	11	0	11	20%	1969	36	9%	65%
1930	28	0	28	50%	1999	36	10%	64%
1931	10	0	10	18%	1981	35	11%	64%
1932	19	0	19	35%	1997	35	12%	63%
1933	20	0	20	37%	1939	35	14%	63%
1934	13	0	13	24%	1980	34	15%	62%
1935	33	0	33	59%	1986	34	16%	61%
1936	32	0	32	58%	1952	34	17%	61%
1937	31	2	33	59%	1944	33	19%	59%
1938	36	2	37	67%	1935	33	20%	59%
1939	28	7	35	63%	1937	33	21%	59%
1940	29	0	29	52%	1957	33	22%	59%
1941	31	0	31	56%	1972	33	23%	58%
1942	27	4	31	55%	1982	33	25%	58%
1943	31	0	31	55%	1989	33	26%	58%
1944	25	8	33	59%	1966	32	27%	58%
1945	31	0	31	55%	2000	32	28%	58%
1946	30	0	30	54%	1958	32	30%	58%
1947	29	0	29	52%	1936	32	31%	58%
1948	26	0	26	46%	1995	32	32%	58%
1949	20	0	20	37%	1928	32	33%	57%
1950	30	0	30	53%	1923	32	35%	57%
1951	31	0	31	56%	1967	31	36%	56%
1952	30	4	34	61%	1996	31	37%	56%
1953	28	0	28	50%	1978	31	38%	56%
1954	26	0	26	46%	1951	31	40%	56%
1955	24	0	24	43%	1968	31	41%	56%
1956	30	0	30	54%	1941	31	42%	56%
1957	25	8	33	59%	1965	31	43%	56%
1958	32	0	32	58%	1943	31	44%	55%
1959	30	1	31	55%	1945	31	46%	55%
1960	28	0	28	50%	1964	31	47%	55%
1961	21	0	21	37%	2002	31	48%	55%
1962	27	0	27	48%	1942	31	49%	55%
1963	26	0	26	46%	1959	31	51%	55%
1964	31	0	31	55%	1946	30	52%	54%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	31	0	31	56%	1956	30	53%	54%
1966	32	0	32	58%	1994	30	54%	53%
1967	31	1	31	56%	1950	30	56%	53%
1968	31	0	31	56%	1973	30	57%	53%
1969	36	0	36	65%	1947	29	58%	52%
1970	32	8	39	70%	1940	29	59%	52%
1971	24	4	28	50%	1925	29	60%	51%
1972	33	0	33	58%	1975	29	62%	51%
1973	29	0	30	53%	1976	28	63%	51%
1974	27	0	27	49%	1993	28	64%	50%
1975	29	0	29	51%	1971	28	65%	50%
1976	28	0	28	51%	1930	28	67%	50%
1977	7	0	7	13%	1960	28	68%	50%
1978	31	0	31	56%	1953	28	69%	50%
1979	33	4	36	65%	1974	27	70%	49%
1980	33	1	34	62%	1962	27	72%	48%
1981	26	9	35	64%	1948	26	73%	46%
1982	33	0	33	58%	1963	26	74%	46%
1983	36	6	42	76%	1954	26	75%	46%
1984	32	4	36	65%	1922	26	77%	46%
1985	28	9	37	66%	1927	24	78%	43%
1986	34	0	34	61%	1955	24	79%	43%
1987	18	4	22	39%	1926	23	80%	40%
1988	7	0	7	13%	1987	22	81%	39%
1989	33	0	33	58%	1961	21	83%	37%
1990	13	2	16	28%	1933	20	84%	37%
1991	7	0	7	12%	1949	20	85%	37%
1992	12	0	12	21%	2001	20	86%	36%
1993	28	0	28	50%	1932	19	88%	35%
1994	30	0	30	53%	1990	16	89%	28%
1995	32	0	32	58%	1934	13	90%	24%
1996	31	0	31	56%	1992	12	91%	21%
1997	32	3	35	63%	1929	11	93%	20%
1998	31	6	37	66%	1931	10	94%	18%
1999	29	7	36	64%	2003	9	95%	15%
2000	32	0	32	58%	1924	8	96%	14%
2001	19	1	20	36%	1988	7	98%	13%
2002	31	0	31	55%	1977	7	99%	13%
2003	9	0	9	15%	1991	7	100%	12%
Average	27	1	28	50%		28		50%
Maximum	36	9	42	76%		42		76%
Minimum	7	0	7	12%		7		12%

Table E.13. Dudley Ridge WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	23	0	23	46%	1983	41	0%	82%
1923	29	0	29	57%	1969	41	1%	82%
1924	7	0	7	14%	1938	41	2%	81%
1925	26	0	26	51%	1986	39	4%	78%
1926	20	0	20	40%	1980	38	5%	76%
1927	22	0	22	43%	1982	37	6%	74%
1928	29	0	29	57%	1997	36	7%	72%
1929	10	0	10	20%	1984	36	9%	72%
1930	25	0	25	50%	1937	36	10%	71%
1931	9	0	9	18%	1943	35	11%	70%
1932	18	0	18	35%	1956	34	12%	68%
1933	18	0	18	37%	1998	34	14%	67%
1934	12	0	12	24%	1941	33	15%	66%
1935	30	0	30	59%	1951	33	16%	66%
1936	31	0	31	61%	1978	33	17%	65%
1937	36	0	36	71%	1996	33	19%	65%
1938	41	0	41	81%	1970	32	20%	63%
1939	25	0	25	49%	1936	31	21%	61%
1940	26	0	26	52%	1979	31	22%	61%
1941	33	0	33	66%	1966	31	23%	61%
1942	24	0	24	48%	2000	30	25%	60%
1943	35	0	35	70%	1958	30	26%	60%
1944	22	0	22	44%	1989	30	27%	60%
1945	28	0	28	55%	1935	30	28%	59%
1946	27	0	27	54%	1972	29	30%	59%
1947	26	0	26	52%	1995	29	31%	58%
1948	23	0	23	46%	1928	29	32%	57%
1949	18	0	18	37%	1923	29	33%	57%
1950	27	0	27	53%	1968	28	35%	56%
1951	33	0	33	66%	1965	28	36%	56%
1952	27	0	27	54%	1945	28	37%	55%
1953	25	0	25	50%	1964	28	38%	55%
1954	23	0	23	46%	2002	28	40%	55%
1955	22	0	22	43%	1967	28	41%	55%
1956	34	0	34	68%	1946	27	42%	54%
1957	22	0	22	44%	1952	27	43%	54%
1958	30	0	30	60%	1959	27	44%	53%
1959	27	0	27	53%	1950	27	46%	53%
1960	25	0	25	50%	1973	27	47%	53%
1961	16	0	16	32%	1999	26	48%	52%
1962	24	0	24	48%	1947	26	49%	52%
1963	23	0	23	46%	1940	26	51%	52%
1964	28	0	28	55%	1925	26	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	28	0	28	56%	1975	26	53%	51%
1966	31	0	31	61%	1976	26	54%	51%
1967	28	0	28	55%	1985	25	56%	50%
1968	28	0	28	56%	1993	25	57%	50%
1969	41	0	41	82%	1930	25	58%	50%
1970	32	0	32	63%	1960	25	59%	50%
1971	22	0	22	44%	1953	25	60%	50%
1972	29	0	29	59%	1939	25	62%	49%
1973	27	0	27	53%	1974	24	63%	49%
1974	24	0	24	49%	1962	24	64%	48%
1975	26	0	26	51%	1942	24	65%	48%
1976	26	0	26	51%	1981	24	67%	47%
1977	7	0	7	13%	1948	23	68%	46%
1978	33	0	33	65%	1963	23	69%	46%
1979	31	0	31	61%	1954	23	70%	46%
1980	38	0	38	76%	1922	23	72%	46%
1981	24	0	24	47%	2003	23	73%	45%
1982	37	0	37	74%	1944	22	74%	44%
1983	41	0	41	82%	1957	22	75%	44%
1984	36	0	36	72%	1971	22	77%	44%
1985	25	0	25	50%	1927	22	78%	43%
1986	39	0	39	78%	1955	22	79%	43%
1987	16	0	16	32%	1926	20	80%	40%
1988	7	0	7	13%	1994	20	81%	40%
1989	30	0	30	60%	1933	18	83%	37%
1990	12	0	12	23%	1949	18	84%	37%
1991	6	0	6	12%	1932	18	85%	35%
1992	11	0	11	21%	2001	17	86%	34%
1993	25	0	25	50%	1961	16	88%	32%
1994	20	0	20	40%	1987	16	89%	32%
1995	29	0	29	58%	1934	12	90%	24%
1996	33	0	33	65%	1990	12	91%	23%
1997	36	0	36	72%	1992	11	93%	21%
1998	34	0	34	67%	1929	10	94%	20%
1999	26	0	26	52%	1931	9	95%	18%
2000	30	0	30	60%	1924	7	96%	14%
2001	17	0	17	34%	1988	7	98%	13%
2002	28	0	28	55%	1977	7	99%	13%
2003	23	0	23	45%	1991	6	100%	12%
Average	26	0	26	51%		26		51%
Maximum	41	0	41	82%		41		82%
Minimum	6	0	6	12%		6		12%

Table E.14. Empire West Side ID: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1	0	1	46%	1969	2	0%	82%
1923	1	0	1	57%	1969	2	1%	82%
1924	0	0	0	14%	1938	2	2%	81%
1925	1	0	1	51%	1986	2	4%	78%
1926	1	0	1	40%	1980	2	5%	76%
1927	1	0	1	43%	1982	1	6%	74%
1928	1	0	1	57%	1997	1	7%	72%
1929	0	0	0	20%	1984	1	9%	72%
1930	1	0	1	50%	1937	1	10%	71%
1931	0	0	0	15%	1943	1	11%	70%
1932	1	0	1	35%	1956	1	12%	68%
1933	1	0	1	37%	1998	1	14%	67%
1934	0	0	0	20%	1941	1	15%	66%
1935	1	0	1	59%	1951	1	16%	66%
1936	1	0	1	61%	1978	1	17%	65%
1937	1	0	1	71%	1996	1	19%	65%
1938	2	0	2	81%	1970	1	20%	63%
1939	1	0	1	49%	1936	1	21%	61%
1940	1	0	1	52%	1979	1	22%	61%
1941	1	0	1	66%	1966	1	23%	61%
1942	1	0	1	48%	2000	1	25%	60%
1943	1	0	1	70%	1958	1	26%	60%
1944	1	0	1	44%	1935	1	27%	59%
1945	1	0	1	55%	1972	1	28%	59%
1946	1	0	1	54%	1989	1	30%	58%
1947	1	0	1	41%	1995	1	31%	58%
1948	1	0	1	46%	1928	1	32%	57%
1949	1	0	1	37%	1923	1	33%	57%
1950	1	0	1	53%	1968	1	35%	56%
1951	1	0	1	66%	1965	1	36%	56%
1952	1	0	1	54%	1945	1	37%	55%
1953	1	0	1	50%	1964	1	38%	55%
1954	1	0	1	46%	1967	1	40%	55%
1955	1	0	1	43%	1946	1	41%	54%
1956	1	0	1	68%	1952	1	42%	54%
1957	1	0	1	44%	1959	1	43%	53%
1958	1	0	1	60%	1994	1	44%	53%
1959	1	0	1	53%	1950	1	46%	53%
1960	1	0	1	50%	1973	1	47%	53%
1961	1	0	1	37%	1999	1	48%	52%
1962	1	0	1	48%	1940	1	49%	52%
1963	1	0	1	46%	1925	1	51%	51%
1964	1	0	1	55%	1975	1	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	56%	1976	1	53%	51%
1966	1	0	1	61%	1985	1	54%	50%
1967	1	0	1	55%	1993	1	56%	50%
1968	1	0	1	56%	1930	1	57%	50%
1969	2	0	2	82%	1960	1	58%	50%
1970	1	0	1	63%	1953	1	59%	50%
1971	1	0	1	44%	1939	1	60%	49%
1972	1	0	1	59%	1974	1	62%	49%
1973	1	0	1	53%	1962	1	63%	48%
1974	1	0	1	49%	2003	1	64%	48%
1975	1	0	1	51%	1942	1	65%	48%
1976	1	0	1	51%	1948	1	67%	46%
1977	0	0	0	13%	1963	1	68%	46%
1978	1	0	1	65%	1954	1	69%	46%
1979	1	0	1	61%	1922	1	70%	46%
1980	2	0	2	76%	1944	1	72%	44%
1981	1	0	1	44%	1957	1	73%	44%
1982	1	0	1	74%	1981	1	74%	44%
1983	2	0	2	82%	2002	1	75%	44%
1984	1	0	1	72%	1971	1	77%	44%
1985	1	0	1	50%	1927	1	78%	43%
1986	2	0	2	78%	1955	1	79%	43%
1987	1	0	1	27%	1947	1	80%	41%
1988	0	0	0	13%	1926	1	81%	40%
1989	1	0	1	58%	1961	1	83%	37%
1990	0	0	0	24%	1933	1	84%	37%
1991	0	0	0	10%	1949	1	85%	37%
1992	0	0	0	17%	1932	1	86%	35%
1993	1	0	1	50%	2001	1	88%	34%
1994	1	0	1	53%	1987	1	89%	27%
1995	1	0	1	58%	1990	0	90%	24%
1996	1	0	1	65%	1934	0	91%	20%
1997	1	0	1	72%	1929	0	93%	20%
1998	1	0	1	67%	1992	0	94%	17%
1999	1	0	1	52%	1931	0	95%	15%
2000	1	0	1	60%	1924	0	96%	14%
2001	1	0	1	34%	1988	0	98%	13%
2002	1	0	1	44%	1977	0	99%	13%
2003	1	0	1	48%	1991	0	100%	10%
Average	1	0	1	50%		1		50%
Maximum	2	0	2	82%		2		82%
Minimum	0	0	0	10%		0		10%

Table E.15. Kern County WA-AG: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	390	0	390	46%	1969	697	0%	82%
1923	483	0	483	57%	1969	697	1%	82%
1924	116	0	116	14%	1938	688	2%	81%
1925	435	0	435	51%	1986	659	4%	78%
1926	343	0	343	40%	1980	648	5%	76%
1927	368	0	368	43%	1982	630	6%	74%
1928	485	0	485	57%	1997	614	7%	72%
1929	166	0	166	20%	1984	613	9%	72%
1930	425	0	425	50%	1937	599	10%	71%
1931	148	0	148	17%	1943	597	11%	70%
1932	295	0	295	35%	1956	581	12%	68%
1933	302	0	302	36%	1998	570	14%	67%
1934	197	0	197	23%	1941	558	15%	66%
1935	501	0	501	59%	1951	556	16%	66%
1936	521	0	521	61%	1978	555	17%	65%
1937	599	0	599	71%	1996	551	19%	65%
1938	688	0	688	81%	1970	536	20%	63%
1939	385	0	385	45%	1936	521	21%	61%
1940	438	0	438	52%	1979	520	22%	61%
1941	558	0	558	66%	1966	514	23%	61%
1942	404	0	404	48%	2000	508	25%	60%
1943	597	0	597	70%	1958	507	26%	60%
1944	375	0	375	44%	1989	502	27%	59%
1945	467	0	467	55%	1935	501	28%	59%
1946	459	0	459	54%	1972	496	30%	59%
1947	325	0	325	38%	1995	489	31%	58%
1948	394	0	394	46%	1928	485	32%	57%
1949	310	0	310	37%	1923	483	33%	57%
1950	449	0	449	53%	1968	474	35%	56%
1951	556	0	556	66%	1965	471	36%	56%
1952	458	0	458	54%	1945	467	37%	55%
1953	420	0	420	50%	1964	467	38%	55%
1954	390	0	390	46%	1967	464	40%	55%
1955	364	0	364	43%	1946	459	41%	54%
1956	581	0	581	68%	1952	458	42%	54%
1957	375	0	375	44%	1959	454	43%	53%
1958	507	0	507	60%	1950	449	44%	53%
1959	454	0	454	53%	1973	449	46%	53%
1960	368	0	368	43%	1999	441	47%	52%
1961	249	0	249	29%	1940	438	48%	52%
1962	410	0	410	48%	1925	435	49%	51%
1963	391	0	391	46%	1975	435	51%	51%
1964	467	0	467	55%	1976	432	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	471	0	471	56%	1985	426	53%	50%
1966	514	0	514	61%	1993	426	54%	50%
1967	464	0	464	55%	1930	425	56%	50%
1968	474	0	474	56%	1953	420	57%	50%
1969	697	0	697	82%	1974	413	58%	49%
1970	536	0	536	63%	1962	410	59%	48%
1971	371	0	371	44%	1942	404	60%	48%
1972	496	0	496	59%	1948	394	62%	46%
1973	449	0	449	53%	1963	391	63%	46%
1974	413	0	413	49%	1954	390	64%	46%
1975	435	0	435	51%	1922	390	65%	46%
1976	432	0	432	51%	1939	385	67%	45%
1977	112	0	112	13%	1944	375	68%	44%
1978	555	0	555	65%	1957	375	69%	44%
1979	520	0	520	61%	1971	371	70%	44%
1980	648	0	648	76%	1927	368	72%	43%
1981	354	0	354	42%	1960	368	73%	43%
1982	630	0	630	74%	1955	364	74%	43%
1983	697	0	697	82%	2003	359	75%	42%
1984	613	0	613	72%	1981	354	77%	42%
1985	426	0	426	50%	1926	343	78%	40%
1986	659	0	659	78%	1947	325	79%	38%
1987	185	0	185	22%	1949	310	80%	37%
1988	112	0	112	13%	1933	302	81%	36%
1989	502	0	502	59%	1932	295	83%	35%
1990	179	0	179	21%	2002	291	84%	34%
1991	96	0	96	11%	2001	286	85%	34%
1992	173	0	173	20%	1994	260	86%	31%
1993	426	0	426	50%	1961	249	88%	29%
1994	260	0	260	31%	1934	197	89%	23%
1995	489	0	489	58%	1987	185	90%	22%
1996	551	0	551	65%	1990	179	91%	21%
1997	614	0	614	72%	1992	173	93%	20%
1998	570	0	570	67%	1929	166	94%	20%
1999	441	0	441	52%	1931	148	95%	17%
2000	508	0	508	60%	1924	116	96%	14%
2001	286	0	286	34%	1988	112	98%	13%
2002	291	0	291	34%	1977	112	99%	13%
2003	359	0	359	42%	1991	96	100%	11%
Average	422	0	422	50%		422		50%
Maximum	697	0	697	82%		697		82%
Minimum	96	0	96	11%		96		11%

Table E.16. Kern County WA-MI: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	62	0	62	46%	1969	111	0%	82%
1923	77	0	77	57%	1969	111	1%	82%
1924	18	0	18	14%	1938	109	2%	81%
1925	69	0	69	51%	1986	105	4%	78%
1926	54	0	54	40%	1980	103	5%	76%
1927	58	0	58	43%	1982	100	6%	74%
1928	77	0	77	57%	1997	97	7%	72%
1929	26	0	26	20%	1984	97	9%	72%
1930	67	0	67	50%	1937	95	10%	71%
1931	24	0	24	18%	1943	95	11%	70%
1932	47	0	47	35%	1956	92	12%	68%
1933	49	0	49	37%	1998	91	14%	67%
1934	32	0	32	24%	1941	89	15%	66%
1935	79	0	79	59%	1951	88	16%	66%
1936	83	0	83	61%	1978	88	17%	65%
1937	95	0	95	71%	1996	87	19%	65%
1938	109	0	109	81%	1970	85	20%	63%
1939	57	0	57	43%	1936	83	21%	61%
1940	70	0	70	52%	1979	83	22%	61%
1941	89	0	89	66%	1989	82	23%	61%
1942	64	0	64	48%	1966	82	25%	61%
1943	95	0	95	70%	2000	81	26%	60%
1944	60	0	60	44%	1958	81	27%	60%
1945	74	0	74	55%	1935	79	28%	59%
1946	73	0	73	54%	1972	79	30%	59%
1947	49	0	49	36%	1995	78	31%	58%
1948	63	0	63	46%	1928	77	32%	57%
1949	49	0	49	37%	1923	77	33%	57%
1950	71	0	71	53%	1968	75	35%	56%
1951	88	0	88	66%	1965	75	36%	56%
1952	73	0	73	54%	1945	74	37%	55%
1953	67	0	67	50%	1964	74	38%	55%
1954	62	0	62	46%	1967	74	40%	55%
1955	58	0	58	43%	1946	73	41%	54%
1956	92	0	92	68%	1952	73	42%	54%
1957	60	0	60	44%	1959	72	43%	53%
1958	81	0	81	60%	1950	71	44%	53%
1959	72	0	72	53%	1973	71	46%	53%
1960	47	0	47	35%	1999	70	47%	52%
1961	26	0	26	20%	1940	70	48%	52%
1962	65	0	65	48%	1925	69	49%	51%
1963	62	0	62	46%	1975	69	51%	51%
1964	74	0	74	55%	1976	69	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	75	0	75	56%	1985	68	53%	50%
1966	82	0	82	61%	1993	68	54%	50%
1967	74	0	74	55%	1930	67	56%	50%
1968	75	0	75	56%	1953	67	57%	50%
1969	111	0	111	82%	1974	65	58%	49%
1970	85	0	85	63%	1962	65	59%	48%
1971	59	0	59	44%	1942	64	60%	48%
1972	79	0	79	59%	1948	63	62%	46%
1973	71	0	71	53%	1963	62	63%	46%
1974	65	0	65	49%	1954	62	64%	46%
1975	69	0	69	51%	1922	62	65%	46%
1976	69	0	69	51%	1981	61	67%	46%
1977	18	0	18	13%	1944	60	68%	44%
1978	88	0	88	65%	1957	60	69%	44%
1979	83	0	83	61%	1971	59	70%	44%
1980	103	0	103	76%	1927	58	72%	43%
1981	61	0	61	46%	1955	58	73%	43%
1982	100	0	100	74%	1939	57	74%	43%
1983	111	0	111	82%	1926	54	75%	40%
1984	97	0	97	72%	2003	52	77%	39%
1985	68	0	68	50%	2002	52	78%	39%
1986	105	0	105	78%	1933	49	79%	37%
1987	43	0	43	32%	1949	49	80%	37%
1988	18	0	18	13%	1947	49	81%	36%
1989	82	0	82	61%	1932	47	83%	35%
1990	17	0	17	13%	1960	47	84%	35%
1991	16	0	16	12%	2001	45	85%	34%
1992	28	0	28	21%	1987	43	86%	32%
1993	68	0	68	50%	1994	40	88%	29%
1994	40	0	40	29%	1934	32	89%	24%
1995	78	0	78	58%	1992	28	90%	21%
1996	87	0	87	65%	1961	26	91%	20%
1997	97	0	97	72%	1929	26	93%	20%
1998	91	0	91	67%	1931	24	94%	18%
1999	70	0	70	52%	1924	18	95%	14%
2000	81	0	81	60%	1988	18	96%	13%
2001	45	0	45	34%	1977	18	98%	13%
2002	52	0	52	39%	1990	17	99%	13%
2003	52	0	52	39%	1991	16	100%	12%
Average	67	0	67	50%		67		50%
Maximum	111	0	111	82%		111		82%
Minimum	16	0	16	12%		16		12%

Table E.17. Littlerock Creek ID: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1	0	1	46%	1969	2	0%	82%
1923	1	0	1	57%	1983	2	1%	82%
1924	0	0	0	14%	1938	2	2%	81%
1925	1	0	1	51%	1986	2	4%	78%
1926	1	0	1	40%	1980	2	5%	76%
1927	1	0	1	43%	1982	2	6%	74%
1928	1	0	1	57%	1997	2	7%	72%
1929	0	0	0	20%	1984	2	9%	72%
1930	1	0	1	50%	1937	2	10%	71%
1931	0	0	0	18%	1943	2	11%	70%
1932	1	0	1	35%	1956	2	12%	68%
1933	1	0	1	37%	1998	2	14%	67%
1934	1	0	1	24%	1941	2	15%	66%
1935	1	0	1	59%	1951	2	16%	66%
1936	1	0	1	61%	1978	2	17%	65%
1937	2	0	2	71%	1996	1	19%	65%
1938	2	0	2	81%	1970	1	20%	63%
1939	1	0	1	49%	1936	1	21%	61%
1940	1	0	1	52%	1979	1	22%	61%
1941	2	0	2	66%	1966	1	23%	61%
1942	1	0	1	48%	2000	1	25%	60%
1943	2	0	2	70%	1958	1	26%	60%
1944	1	0	1	44%	1935	1	27%	59%
1945	1	0	1	55%	1972	1	28%	59%
1946	1	0	1	54%	1989	1	30%	58%
1947	1	0	1	35%	1995	1	31%	58%
1948	1	0	1	46%	1928	1	32%	57%
1949	1	0	1	37%	1923	1	33%	57%
1950	1	0	1	53%	1968	1	35%	56%
1951	2	0	2	66%	1965	1	36%	56%
1952	1	0	1	54%	1945	1	37%	55%
1953	1	0	1	50%	1964	1	38%	55%
1954	1	0	1	46%	1967	1	40%	55%
1955	1	0	1	43%	1946	1	41%	54%
1956	2	0	2	68%	1952	1	42%	54%
1957	1	0	1	44%	1959	1	43%	53%
1958	1	0	1	60%	1950	1	44%	53%
1959	1	0	1	53%	1973	1	46%	53%
1960	1	0	1	39%	1999	1	47%	52%
1961	0	0	0	19%	1940	1	48%	52%
1962	1	0	1	48%	1925	1	49%	51%
1963	1	0	1	46%	1975	1	51%	51%
1964	1	0	1	55%	1976	1	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1	0	1	56%	1985	1	53%	50%
1966	1	0	1	61%	1993	1	54%	50%
1967	1	0	1	55%	1930	1	56%	50%
1968	1	0	1	56%	1953	1	57%	50%
1969	2	0	2	82%	1939	1	58%	49%
1970	1	0	1	63%	1974	1	59%	49%
1971	1	0	1	44%	1962	1	60%	48%
1972	1	0	1	59%	1942	1	62%	48%
1973	1	0	1	53%	1948	1	63%	46%
1974	1	0	1	49%	1963	1	64%	46%
1975	1	0	1	51%	1954	1	65%	46%
1976	1	0	1	51%	1922	1	67%	46%
1977	0	0	0	13%	1944	1	68%	44%
1978	2	0	2	65%	1957	1	69%	44%
1979	1	0	1	61%	2002	1	70%	44%
1980	2	0	2	76%	1971	1	72%	44%
1981	1	0	1	43%	1927	1	73%	43%
1982	2	0	2	74%	1981	1	74%	43%
1983	2	0	2	82%	1955	1	75%	43%
1984	2	0	2	72%	1926	1	77%	40%
1985	1	0	1	50%	2003	1	78%	40%
1986	2	0	2	78%	1960	1	79%	39%
1987	1	0	1	32%	1994	1	80%	37%
1988	0	0	0	13%	1933	1	81%	37%
1989	1	0	1	58%	1949	1	83%	37%
1990	1	0	1	24%	1947	1	84%	35%
1991	0	0	0	12%	1932	1	85%	35%
1992	0	0	0	21%	2001	1	86%	34%
1993	1	0	1	50%	1987	1	88%	32%
1994	1	0	1	37%	1990	1	89%	24%
1995	1	0	1	58%	1934	1	90%	24%
1996	1	0	1	65%	1992	0	91%	21%
1997	2	0	2	72%	1929	0	93%	20%
1998	2	0	2	67%	1961	0	94%	19%
1999	1	0	1	52%	1931	0	95%	18%
2000	1	0	1	60%	1924	0	96%	14%
2001	1	0	1	34%	1988	0	98%	13%
2002	1	0	1	44%	1977	0	99%	13%
2003	1	0	1	40%	1991	0	100%	12%
Average	1	0	1	50%		1		50%
Maximum	2	0	2	82%		2		82%
Minimum	0	0	0	12%		0		12%

Table E.18. Metropolitan WDSC: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	878	0	878	46%	1983	1,533	0%	80%
1923	1,089	0	1,089	57%	1938	1,434	1%	75%
1924	261	0	261	14%	1969	1,406	2%	74%
1925	980	0	980	51%	1980	1,330	4%	70%
1926	773	0	773	40%	1986	1,329	5%	70%
1927	829	0	829	43%	1998	1,313	6%	69%
1928	1,092	0	1,092	57%	1970	1,311	7%	69%
1929	374	0	374	20%	1984	1,311	9%	69%
1930	958	0	958	50%	1997	1,310	10%	69%
1931	344	0	344	18%	1982	1,272	11%	67%
1932	666	0	666	35%	1937	1,242	12%	65%
1933	699	0	699	37%	1979	1,234	14%	65%
1934	459	0	459	24%	1943	1,204	15%	63%
1935	1,128	0	1,128	59%	1956	1,175	16%	61%
1936	1,140	0	1,140	60%	1941	1,162	17%	61%
1937	1,209	34	1,242	65%	1951	1,162	19%	61%
1938	1,375	60	1,434	75%	1978	1,162	20%	61%
1939	944	161	1,104	58%	1996	1,158	21%	61%
1940	987	0	987	52%	1936	1,140	22%	60%
1941	1,162	0	1,162	61%	1966	1,134	23%	59%
1942	910	93	1,003	52%	1935	1,128	25%	59%
1943	1,204	0	1,204	63%	2000	1,127	26%	59%
1944	846	141	987	52%	1958	1,125	27%	59%
1945	1,053	0	1,053	55%	1952	1,123	28%	59%
1946	1,036	0	1,036	54%	1972	1,118	30%	59%
1947	950	0	950	50%	1999	1,110	31%	58%
1948	888	0	888	46%	1989	1,108	32%	58%
1949	699	0	699	37%	1985	1,106	33%	58%
1950	1,013	0	1,013	53%	1939	1,104	35%	58%
1951	1,162	0	1,162	61%	1995	1,102	36%	58%
1952	1,033	90	1,123	59%	2003	1,095	37%	57%
1953	948	0	948	50%	1928	1,092	38%	57%
1954	880	0	880	46%	1923	1,089	40%	57%
1955	820	0	820	43%	1968	1,068	41%	56%
1956	1,175	0	1,175	61%	1967	1,068	42%	56%
1957	846	134	980	51%	1965	1,062	43%	56%
1958	1,125	0	1,125	59%	1945	1,053	44%	55%
1959	1,023	15	1,038	54%	1964	1,052	46%	55%
1960	950	0	950	50%	1981	1,050	47%	55%
1961	703	0	703	37%	1959	1,038	48%	54%
1962	925	0	925	48%	1946	1,036	49%	54%
1963	881	0	881	46%	1994	1,018	51%	53%
1964	1,052	0	1,052	55%	1950	1,013	52%	53%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1,062	0	1,062	56%	1973	1,012	53%	53%
1966	1,134	0	1,134	59%	1942	1,003	54%	52%
1967	1,046	22	1,068	56%	2002	1,000	56%	52%
1968	1,068	0	1,068	56%	1940	987	57%	52%
1969	1,406	0	1,406	74%	1944	987	58%	52%
1970	1,148	163	1,311	69%	1925	980	59%	51%
1971	836	61	896	47%	1957	980	60%	51%
1972	1,118	0	1,118	59%	1975	980	62%	51%
1973	1,011	1	1,012	53%	1976	974	63%	51%
1974	930	0	930	49%	1993	960	64%	50%
1975	980	0	980	51%	1930	958	65%	50%
1976	974	0	974	51%	1947	950	67%	50%
1977	252	0	252	13%	1960	950	68%	50%
1978	1,162	0	1,162	61%	1953	948	69%	50%
1979	1,147	87	1,234	65%	1974	930	70%	49%
1980	1,307	23	1,330	70%	1962	925	72%	48%
1981	897	153	1,050	55%	1971	896	73%	47%
1982	1,272	0	1,272	67%	1948	888	74%	46%
1983	1,406	127	1,533	80%	1963	881	75%	46%
1984	1,237	74	1,311	69%	1954	880	77%	46%
1985	961	145	1,106	58%	1922	878	78%	46%
1986	1,329	0	1,329	70%	1927	829	79%	43%
1987	614	141	755	39%	1955	820	80%	43%
1988	252	0	252	13%	1926	773	81%	40%
1989	1,108	0	1,108	58%	1987	755	83%	39%
1990	460	35	495	26%	1961	703	84%	37%
1991	225	0	225	12%	1933	699	85%	37%
1992	403	0	403	21%	1949	699	86%	37%
1993	960	0	960	50%	1932	666	88%	35%
1994	1,018	0	1,018	53%	2001	662	89%	35%
1995	1,102	0	1,102	58%	1990	495	90%	26%
1996	1,158	0	1,158	61%	1934	459	91%	24%
1997	1,239	71	1,310	69%	1992	403	93%	21%
1998	1,169	143	1,313	69%	1929	374	94%	20%
1999	994	116	1,110	58%	1931	344	95%	18%
2000	1,127	0	1,127	59%	1924	261	96%	14%
2001	644	18	662	35%	1988	252	98%	13%
2002	1,000	0	1,000	52%	1977	252	99%	13%
2003	1,095	0	1,095	57%	1991	225	100%	12%
Average	948	26	973	51%		973		51%
Maximum	1,406	163	1,533	80%		1,533		80%
Minimum	225	0	225	12%		225		12%

Table E.19. Mojave WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	38	0	38	46%	1969	68	0%	82%
1923	47	0	47	57%	1969	68	1%	82%
1924	11	0	11	14%	1938	67	2%	81%
1925	42	0	42	51%	1986	64	4%	78%
1926	34	0	34	40%	1980	63	5%	76%
1927	36	0	36	43%	1982	62	6%	74%
1928	47	0	47	57%	1997	60	7%	72%
1929	16	0	16	20%	1984	60	9%	72%
1930	41	0	41	50%	1937	58	10%	71%
1931	15	0	15	18%	1943	58	11%	70%
1932	29	0	29	35%	1956	57	12%	68%
1933	30	0	30	37%	1998	56	14%	67%
1934	20	0	20	24%	1941	54	15%	66%
1935	49	0	49	59%	1951	54	16%	66%
1936	51	0	51	61%	1978	54	17%	65%
1937	58	0	58	71%	1996	54	19%	65%
1938	67	0	67	81%	1970	52	20%	63%
1939	41	0	41	49%	1989	51	21%	62%
1940	43	0	43	52%	1936	51	22%	61%
1941	54	0	54	66%	1979	51	23%	61%
1942	39	0	39	48%	1966	50	25%	61%
1943	58	0	58	70%	2000	50	26%	60%
1944	37	0	37	44%	1958	50	27%	60%
1945	46	0	46	55%	1935	49	28%	59%
1946	45	0	45	54%	1972	48	30%	59%
1947	43	0	43	52%	1995	48	31%	58%
1948	38	0	38	46%	1928	47	32%	57%
1949	30	0	30	37%	1923	47	33%	57%
1950	44	0	44	53%	1968	46	35%	56%
1951	54	0	54	66%	1965	46	36%	56%
1952	45	0	45	54%	1945	46	37%	55%
1953	41	0	41	50%	1964	46	38%	55%
1954	38	0	38	46%	2002	45	40%	55%
1955	36	0	36	43%	1967	45	41%	55%
1956	57	0	57	68%	1946	45	42%	54%
1957	37	0	37	44%	1952	45	43%	54%
1958	50	0	50	60%	1959	44	44%	53%
1959	44	0	44	53%	1994	44	46%	53%
1960	41	0	41	50%	2003	44	47%	53%
1961	30	0	30	37%	1950	44	48%	53%
1962	40	0	40	48%	1973	44	49%	53%
1963	38	0	38	46%	1999	43	51%	52%
1964	46	0	46	55%	1947	43	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	46	0	46	56%	1940	43	53%	52%
1966	50	0	50	61%	1925	42	54%	51%
1967	45	0	45	55%	1975	42	56%	51%
1968	46	0	46	56%	1976	42	57%	51%
1969	68	0	68	82%	1985	42	58%	50%
1970	52	0	52	63%	1993	42	59%	50%
1971	36	0	36	44%	1930	41	60%	50%
1972	48	0	48	59%	1960	41	62%	50%
1973	44	0	44	53%	1953	41	63%	50%
1974	40	0	40	49%	1939	41	64%	49%
1975	42	0	42	51%	1974	40	65%	49%
1976	42	0	42	51%	1962	40	67%	48%
1977	11	0	11	13%	1942	39	68%	48%
1978	54	0	54	65%	1981	39	69%	47%
1979	51	0	51	61%	1948	38	70%	46%
1980	63	0	63	76%	1963	38	72%	46%
1981	39	0	39	47%	1954	38	73%	46%
1982	62	0	62	74%	1922	38	74%	46%
1983	68	0	68	82%	1944	37	75%	44%
1984	60	0	60	72%	1957	37	77%	44%
1985	42	0	42	50%	1971	36	78%	44%
1986	64	0	64	78%	1927	36	79%	43%
1987	27	0	27	32%	1955	36	80%	43%
1988	11	0	11	13%	1926	34	81%	40%
1989	51	0	51	62%	1961	30	83%	37%
1990	20	0	20	24%	1933	30	84%	37%
1991	10	0	10	12%	1949	30	85%	37%
1992	17	0	17	21%	1932	29	86%	35%
1993	42	0	42	50%	2001	28	88%	34%
1994	44	0	44	53%	1987	27	89%	32%
1995	48	0	48	58%	1990	20	90%	24%
1996	54	0	54	65%	1934	20	91%	24%
1997	60	0	60	72%	1992	17	93%	21%
1998	56	0	56	67%	1929	16	94%	20%
1999	43	0	43	52%	1931	15	95%	18%
2000	50	0	50	60%	1924	11	96%	14%
2001	28	0	28	34%	1988	11	98%	13%
2002	45	0	45	55%	1977	11	99%	13%
2003	44	0	44	53%	1991	10	100%	12%
Average	42	0	42	51%		42		51%
Maximum	68	0	68	82%		68		82%
Minimum	10	0	10	12%		10		12%

Table E.20. Napa County FC&WCD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	100%	1963	29	0%	100%
1923	27	0	27	94%	1963	29	1%	100%
1924	10	0	10	33%	1963	29	2%	100%
1925	20	0	20	68%	1963	29	4%	100%
1926	20	0	20	68%	1922	29	5%	100%
1927	29	0	29	99%	1922	29	6%	100%
1928	29	0	29	99%	1922	29	7%	100%
1929	10	0	10	33%	1922	29	9%	100%
1930	20	0	20	68%	1922	29	10%	100%
1931	10	0	10	33%	1922	29	11%	100%
1932	10	0	10	33%	1938	29	12%	100%
1933	10	0	10	33%	1938	29	14%	100%
1934	10	0	10	33%	1938	29	15%	100%
1935	20	0	20	68%	1938	29	16%	100%
1936	27	0	27	94%	1942	29	17%	100%
1937	20	0	20	68%	1942	29	19%	100%
1938	29	0	29	100%	1942	29	20%	100%
1939	27	0	27	94%	1942	29	21%	100%
1940	29	0	29	99%	1942	29	22%	100%
1941	29	0	29	100%	1942	29	23%	100%
1942	29	0	29	100%	1942	29	25%	100%
1943	29	0	29	100%	1942	29	26%	100%
1944	20	0	20	68%	1942	29	27%	100%
1945	27	0	27	94%	1942	29	28%	100%
1946	29	0	29	99%	1942	29	30%	100%
1947	20	0	20	68%	1942	29	31%	100%
1948	27	0	27	94%	2003	29	32%	99%
1949	20	0	20	68%	1928	29	33%	99%
1950	20	0	20	68%	1928	29	35%	99%
1951	29	0	29	99%	1928	29	36%	99%
1952	29	0	29	100%	1927	29	37%	99%
1953	29	0	29	100%	1927	29	38%	99%
1954	29	0	29	99%	1927	29	40%	99%
1955	20	0	20	68%	1927	29	41%	99%
1956	29	0	29	100%	1927	29	42%	99%
1957	29	0	29	99%	1927	29	43%	99%
1958	29	0	29	100%	1954	29	44%	99%
1959	27	0	27	94%	1954	29	46%	99%
1960	20	0	20	68%	1954	29	47%	99%
1961	20	0	20	68%	1923	27	48%	94%
1962	27	0	27	94%	1923	27	49%	94%
1963	29	0	29	100%	1923	27	51%	94%
1964	20	0	20	68%	1923	27	52%	94%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	100%	1923	27	53%	94%
1966	27	0	27	94%	1923	27	54%	94%
1967	29	0	29	100%	1923	27	56%	94%
1968	27	0	27	94%	1936	27	57%	94%
1969	29	0	29	100%	1936	27	58%	94%
1970	29	0	29	100%	1936	27	59%	94%
1971	29	0	29	100%	1936	27	60%	94%
1972	27	0	27	94%	1925	20	62%	68%
1973	29	0	29	99%	1925	20	63%	68%
1974	29	0	29	100%	1925	20	64%	68%
1975	29	0	29	100%	1925	20	65%	68%
1976	20	0	20	68%	1925	20	67%	68%
1977	10	0	10	33%	1925	20	68%	68%
1978	29	0	29	99%	1925	20	69%	68%
1979	20	0	20	68%	1925	20	70%	68%
1980	29	0	29	99%	1925	20	72%	68%
1981	20	0	20	68%	1926	20	73%	68%
1982	29	0	29	100%	1926	20	74%	68%
1983	29	0	29	100%	1926	20	75%	68%
1984	29	0	29	100%	1926	20	77%	68%
1985	27	0	27	94%	1937	20	78%	68%
1986	29	0	29	100%	1937	20	79%	68%
1987	20	0	20	68%	1937	20	80%	68%
1988	10	0	10	33%	1937	20	81%	68%
1989	20	0	20	68%	1937	20	83%	68%
1990	10	0	10	33%	1937	20	84%	68%
1991	10	0	10	33%	1937	20	85%	68%
1992	10	0	10	33%	1924	10	86%	33%
1993	29	0	29	99%	1924	10	88%	33%
1994	10	0	10	33%	1924	10	89%	33%
1995	29	0	29	100%	1924	10	90%	33%
1996	29	0	29	100%	1924	10	91%	33%
1997	29	0	29	100%	1924	10	93%	33%
1998	29	0	29	100%	1924	10	94%	33%
1999	29	0	29	100%	1924	10	95%	33%
2000	29	0	29	99%	1931	10	96%	33%
2001	20	0	20	68%	1931	10	98%	33%
2002	20	0	20	68%	1931	10	99%	33%
2003	29	0	29	99%	1931	10	100%	33%
Average	24	0	24	81%		24		81%
Maximum	29	0	29	100%		29		100%
Minimum	10	0	10	33%		10		33%

Table E.21. Oak Flat WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	3	0	3	46%	1983	5	0%	82%
1923	3	0	3	53%	1969	5	1%	82%
1924	1	0	1	14%	1938	5	2%	81%
1925	3	0	3	51%	1986	4	4%	78%
1926	2	0	2	38%	1980	4	5%	76%
1927	2	0	2	43%	1982	4	6%	74%
1928	3	0	3	57%	1997	4	7%	72%
1929	1	0	1	20%	1984	4	9%	72%
1930	3	0	3	50%	1937	4	10%	71%
1931	1	0	1	15%	1943	4	11%	70%
1932	2	0	2	35%	1956	4	12%	68%
1933	2	0	2	31%	1998	4	14%	67%
1934	1	0	1	20%	1941	4	15%	66%
1935	3	0	3	59%	1951	4	16%	66%
1936	4	0	4	61%	1978	4	17%	65%
1937	4	0	4	71%	1996	4	19%	65%
1938	5	0	5	81%	1970	4	20%	63%
1939	3	0	3	46%	1989	4	21%	62%
1940	3	0	3	52%	1936	4	22%	61%
1941	4	0	4	66%	1979	3	23%	61%
1942	3	0	3	48%	1966	3	25%	61%
1943	4	0	4	70%	2000	3	26%	60%
1944	2	0	2	41%	1958	3	27%	60%
1945	3	0	3	55%	1935	3	28%	59%
1946	3	0	3	54%	1972	3	30%	59%
1947	2	0	2	43%	1995	3	31%	58%
1948	3	0	3	46%	1928	3	32%	57%
1949	2	0	2	37%	1968	3	33%	56%
1950	3	0	3	49%	1965	3	35%	56%
1951	4	0	4	66%	1945	3	36%	55%
1952	3	0	3	54%	1964	3	37%	55%
1953	3	0	3	50%	1967	3	38%	55%
1954	3	0	3	46%	1946	3	40%	54%
1955	2	0	2	43%	1952	3	41%	54%
1956	4	0	4	68%	1959	3	42%	53%
1957	3	0	3	44%	1923	3	43%	53%
1958	3	0	3	60%	1973	3	44%	53%
1959	3	0	3	53%	1999	3	46%	52%
1960	3	0	3	46%	1940	3	47%	52%
1961	1	0	1	24%	1925	3	48%	51%
1962	3	0	3	48%	1975	3	49%	51%
1963	3	0	3	46%	1976	3	51%	51%
1964	3	0	3	55%	1985	3	52%	50%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	3	0	3	56%	1993	3	53%	50%
1966	3	0	3	61%	1930	3	54%	50%
1967	3	0	3	55%	1953	3	56%	50%
1968	3	0	3	56%	1950	3	57%	49%
1969	5	0	5	82%	1974	3	58%	49%
1970	4	0	4	63%	1962	3	59%	48%
1971	2	0	2	44%	1942	3	60%	48%
1972	3	0	3	59%	1948	3	62%	46%
1973	3	0	3	53%	1960	3	63%	46%
1974	3	0	3	49%	1963	3	64%	46%
1975	3	0	3	51%	1954	3	65%	46%
1976	3	0	3	51%	1922	3	67%	46%
1977	1	0	1	13%	1939	3	68%	46%
1978	4	0	4	65%	2002	3	69%	46%
1979	3	0	3	61%	1994	3	70%	44%
1980	4	0	4	76%	1957	3	72%	44%
1981	3	0	3	44%	1981	3	73%	44%
1982	4	0	4	74%	1971	2	74%	44%
1983	5	0	5	82%	1927	2	75%	43%
1984	4	0	4	72%	1947	2	77%	43%
1985	3	0	3	50%	1955	2	78%	43%
1986	4	0	4	78%	1944	2	79%	41%
1987	2	0	2	27%	2003	2	80%	41%
1988	1	0	1	13%	1926	2	81%	38%
1989	4	0	4	62%	1949	2	83%	37%
1990	1	0	1	22%	1932	2	84%	35%
1991	1	0	1	12%	2001	2	85%	34%
1992	1	0	1	18%	1933	2	86%	31%
1993	3	0	3	50%	1987	2	88%	27%
1994	3	0	3	44%	1961	1	89%	24%
1995	3	0	3	58%	1990	1	90%	22%
1996	4	0	4	65%	1934	1	91%	20%
1997	4	0	4	72%	1929	1	93%	20%
1998	4	0	4	67%	1992	1	94%	18%
1999	3	0	3	52%	1931	1	95%	15%
2000	3	0	3	60%	1924	1	96%	14%
2001	2	0	2	34%	1988	1	98%	13%
2002	3	0	3	46%	1977	1	99%	13%
2003	2	0	2	41%	1991	1	100%	12%
Average	3	0	3	50%		3		50%
Maximum	5	0	5	82%		5		82%
Minimum	1	0	1	12%		1		12%

Table E.22. Palmdale WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	10	0	10	46%	1969	17	0%	82%
1923	12	0	12	57%	1983	17	1%	82%
1924	3	0	3	14%	1938	17	2%	81%
1925	11	0	11	51%	1986	17	4%	78%
1926	9	0	9	40%	1980	16	5%	76%
1927	9	0	9	43%	1982	16	6%	74%
1928	12	0	12	57%	1997	15	7%	72%
1929	4	0	4	20%	1984	15	9%	72%
1930	11	0	11	50%	1937	15	10%	71%
1931	4	0	4	18%	1943	15	11%	70%
1932	7	0	7	35%	1956	15	12%	68%
1933	8	0	8	37%	1998	14	14%	67%
1934	5	0	5	24%	1941	14	15%	66%
1935	13	0	13	59%	1951	14	16%	66%
1936	13	0	13	61%	1978	14	17%	65%
1937	15	0	15	71%	1996	14	19%	65%
1938	17	0	17	81%	1970	13	20%	63%
1939	11	0	11	49%	1936	13	21%	61%
1940	11	0	11	52%	1979	13	22%	61%
1941	14	0	14	66%	1966	13	23%	61%
1942	10	0	10	48%	2000	13	25%	60%
1943	15	0	15	70%	1958	13	26%	60%
1944	9	0	9	44%	1935	13	27%	59%
1945	12	0	12	55%	1972	12	28%	59%
1946	12	0	12	54%	1995	12	30%	58%
1947	7	0	7	33%	1928	12	31%	57%
1948	10	0	10	46%	1923	12	32%	57%
1949	8	0	8	37%	1989	12	33%	57%
1950	11	0	11	53%	1968	12	35%	56%
1951	14	0	14	66%	1965	12	36%	56%
1952	12	0	12	54%	1945	12	37%	55%
1953	11	0	11	50%	1964	12	38%	55%
1954	10	0	10	46%	1967	12	40%	55%
1955	9	0	9	43%	1946	12	41%	54%
1956	15	0	15	68%	1952	12	42%	54%
1957	9	0	9	44%	1959	11	43%	53%
1958	13	0	13	60%	1950	11	44%	53%
1959	11	0	11	53%	1973	11	46%	53%
1960	8	0	8	37%	1999	11	47%	52%
1961	3	0	3	16%	1940	11	48%	52%
1962	10	0	10	48%	1925	11	49%	51%
1963	10	0	10	46%	1975	11	51%	51%
1964	12	0	12	55%	1976	11	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	12	0	12	56%	1985	11	53%	50%
1966	13	0	13	61%	1993	11	54%	50%
1967	12	0	12	55%	1930	11	56%	50%
1968	12	0	12	56%	1953	11	57%	50%
1969	17	0	17	82%	1939	11	58%	49%
1970	13	0	13	63%	1974	10	59%	49%
1971	9	0	9	44%	1962	10	60%	48%
1972	12	0	12	59%	1942	10	62%	48%
1973	11	0	11	53%	1948	10	63%	46%
1974	10	0	10	49%	1963	10	64%	46%
1975	11	0	11	51%	1954	10	65%	46%
1976	11	0	11	51%	1922	10	67%	46%
1977	3	0	3	13%	1944	9	68%	44%
1978	14	0	14	65%	1957	9	69%	44%
1979	13	0	13	61%	1971	9	70%	44%
1980	16	0	16	76%	1927	9	72%	43%
1981	9	0	9	41%	1955	9	73%	43%
1982	16	0	16	74%	2002	9	74%	41%
1983	17	0	17	82%	1981	9	75%	41%
1984	15	0	15	72%	1926	9	77%	40%
1985	11	0	11	50%	2003	9	78%	40%
1986	17	0	17	78%	1960	8	79%	37%
1987	7	0	7	32%	1933	8	80%	37%
1988	3	0	3	13%	1949	8	81%	37%
1989	12	0	12	57%	1932	7	83%	35%
1990	5	0	5	24%	1994	7	84%	35%
1991	3	0	3	12%	2001	7	85%	34%
1992	4	0	4	21%	1947	7	86%	33%
1993	11	0	11	50%	1987	7	88%	32%
1994	7	0	7	35%	1990	5	89%	24%
1995	12	0	12	58%	1934	5	90%	24%
1996	14	0	14	65%	1992	4	91%	21%
1997	15	0	15	72%	1929	4	93%	20%
1998	14	0	14	67%	1931	4	94%	18%
1999	11	0	11	52%	1961	3	95%	16%
2000	13	0	13	60%	1924	3	96%	14%
2001	7	0	7	34%	1988	3	98%	13%
2002	9	0	9	41%	1977	3	99%	13%
2003	9	0	9	40%	1991	3	100%	12%
Average	11	0	11	50%		11		50%
Maximum	17	0	17	82%		17		82%
Minimum	3	0	3	12%		3		12%

Table E.23. San Bernardino Valley MWD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	47	0	47	46%	1983	82	0%	80%
1923	58	0	58	57%	1938	77	1%	75%
1924	14	0	14	14%	1969	75	2%	73%
1925	53	0	53	51%	1980	71	4%	69%
1926	42	0	42	40%	1986	71	5%	69%
1927	45	0	45	43%	1970	71	6%	69%
1928	59	0	59	57%	1998	70	7%	69%
1929	20	0	20	20%	1984	70	9%	68%
1930	51	0	51	50%	1997	70	10%	68%
1931	18	0	18	18%	1982	68	11%	66%
1932	36	0	36	35%	1937	66	12%	65%
1933	38	0	38	37%	1979	66	14%	65%
1934	25	0	25	24%	1943	64	15%	63%
1935	61	0	61	59%	1956	63	16%	61%
1936	61	0	61	60%	1951	62	17%	61%
1937	64	2	66	65%	1941	62	19%	61%
1938	74	3	77	75%	1978	62	20%	60%
1939	51	9	60	58%	1996	62	21%	60%
1940	53	0	53	52%	1989	62	22%	60%
1941	62	0	62	61%	1936	61	23%	60%
1942	49	5	54	53%	1966	61	25%	59%
1943	64	0	64	63%	1935	61	26%	59%
1944	45	8	53	52%	2000	60	27%	59%
1945	57	0	57	55%	1952	60	28%	59%
1946	56	0	56	54%	1958	60	30%	59%
1947	53	0	53	52%	1972	60	31%	59%
1948	48	0	48	46%	1999	60	32%	58%
1949	38	0	38	37%	1985	60	33%	58%
1950	54	0	54	53%	1939	60	35%	58%
1951	62	0	62	61%	1995	59	36%	58%
1952	55	5	60	59%	1928	59	37%	57%
1953	51	0	51	50%	1923	58	38%	57%
1954	47	0	47	46%	1967	57	40%	56%
1955	44	0	44	43%	1968	57	41%	56%
1956	63	0	63	61%	1981	57	42%	56%
1957	45	8	53	52%	1965	57	43%	56%
1958	60	0	60	59%	1945	57	44%	55%
1959	55	1	56	54%	1964	56	46%	55%
1960	51	0	51	50%	2002	56	47%	55%
1961	38	0	38	37%	1959	56	48%	54%
1962	50	0	50	48%	1946	56	49%	54%
1963	47	0	47	46%	1994	55	51%	53%
1964	56	0	56	55%	1950	54	52%	53%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	57	0	57	56%	1973	54	53%	53%
1966	61	0	61	59%	1942	54	54%	53%
1967	56	1	57	56%	1944	53	56%	52%
1968	57	0	57	56%	1947	53	57%	52%
1969	75	0	75	73%	1957	53	58%	52%
1970	61	9	71	69%	1940	53	59%	52%
1971	45	3	48	47%	1925	53	60%	51%
1972	60	0	60	59%	1975	53	62%	51%
1973	54	0	54	53%	1976	52	63%	51%
1974	50	0	50	49%	1993	52	64%	50%
1975	53	0	53	51%	1930	51	65%	50%
1976	52	0	52	51%	1960	51	67%	50%
1977	14	0	14	13%	1953	51	68%	50%
1978	62	0	62	60%	1974	50	69%	49%
1979	61	5	66	65%	1962	50	70%	48%
1980	70	1	71	69%	1971	48	72%	47%
1981	48	9	57	56%	1948	48	73%	46%
1982	68	0	68	66%	1963	47	74%	46%
1983	75	7	82	80%	1954	47	75%	46%
1984	66	4	70	68%	1922	47	77%	46%
1985	52	8	60	58%	1927	45	78%	43%
1986	71	0	71	69%	1955	44	79%	43%
1987	33	8	41	39%	1926	42	80%	40%
1988	14	0	14	13%	1987	41	81%	39%
1989	62	0	62	60%	1961	38	83%	37%
1990	25	2	27	26%	1933	38	84%	37%
1991	12	0	12	12%	1949	38	85%	37%
1992	22	0	22	21%	1932	36	86%	35%
1993	52	0	52	50%	2001	36	88%	35%
1994	55	0	55	53%	2003	30	89%	29%
1995	59	0	59	58%	1990	27	90%	26%
1996	62	0	62	60%	1934	25	91%	24%
1997	66	4	70	68%	1992	22	93%	21%
1998	62	8	70	69%	1929	20	94%	20%
1999	53	7	60	58%	1931	18	95%	18%
2000	60	0	60	59%	1924	14	96%	14%
2001	35	1	36	35%	1988	14	98%	13%
2002	56	0	56	55%	1977	14	99%	13%
2003	30	0	30	29%	1991	12	100%	12%
Average	51	1	52	51%		52		51%
Maximum	75	9	82	80%		82		80%
Minimum	12	0	12	12%		12		12%

Table E.24. San Gabriel Valley MWD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	13	0	13	46%	1969	24	0%	82%
1923	16	0	16	57%	1983	24	1%	82%
1924	4	0	4	14%	1938	23	2%	81%
1925	15	0	15	51%	1986	22	4%	78%
1926	12	0	12	40%	1980	22	5%	76%
1927	12	0	12	43%	1982	21	6%	74%
1928	16	0	16	57%	1997	21	7%	72%
1929	6	0	6	20%	1984	21	9%	72%
1930	14	0	14	50%	1937	20	10%	71%
1931	5	0	5	18%	1943	20	11%	70%
1932	10	0	10	35%	1956	20	12%	68%
1933	11	0	11	37%	1998	19	14%	67%
1934	7	0	7	24%	1941	19	15%	66%
1935	17	0	17	59%	1951	19	16%	66%
1936	18	0	18	61%	1978	19	17%	65%
1937	20	0	20	71%	1996	19	19%	65%
1938	23	0	23	81%	1970	18	20%	63%
1939	14	0	14	49%	1989	18	21%	62%
1940	15	0	15	52%	1936	18	22%	61%
1941	19	0	19	66%	1979	18	23%	61%
1942	14	0	14	48%	1966	17	25%	61%
1943	20	0	20	70%	2000	17	26%	60%
1944	13	0	13	44%	1958	17	27%	60%
1945	16	0	16	55%	1935	17	28%	59%
1946	16	0	16	54%	1972	17	30%	59%
1947	15	0	15	52%	1995	17	31%	58%
1948	13	0	13	46%	1928	16	32%	57%
1949	11	0	11	37%	1923	16	33%	57%
1950	15	0	15	53%	1968	16	35%	56%
1951	19	0	19	66%	1965	16	36%	56%
1952	16	0	16	54%	1945	16	37%	55%
1953	14	0	14	50%	1964	16	38%	55%
1954	13	0	13	46%	2002	16	40%	55%
1955	12	0	12	43%	1967	16	41%	55%
1956	20	0	20	68%	1946	16	42%	54%
1957	13	0	13	44%	1952	16	43%	54%
1958	17	0	17	60%	1959	15	44%	53%
1959	15	0	15	53%	1994	15	46%	53%
1960	14	0	14	50%	1950	15	47%	53%
1961	11	0	11	37%	1973	15	48%	53%
1962	14	0	14	48%	1999	15	49%	52%
1963	13	0	13	46%	1947	15	51%	52%
1964	16	0	16	55%	1940	15	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	16	0	16	56%	1925	15	53%	51%
1966	17	0	17	61%	1975	15	54%	51%
1967	16	0	16	55%	1976	15	56%	51%
1968	16	0	16	56%	1985	14	57%	50%
1969	24	0	24	82%	1993	14	58%	50%
1970	18	0	18	63%	1930	14	59%	50%
1971	13	0	13	44%	1960	14	60%	50%
1972	17	0	17	59%	1953	14	62%	50%
1973	15	0	15	53%	1939	14	63%	49%
1974	14	0	14	49%	1974	14	64%	49%
1975	15	0	15	51%	1962	14	65%	48%
1976	15	0	15	51%	1942	14	67%	48%
1977	4	0	4	13%	1981	14	68%	47%
1978	19	0	19	65%	1948	13	69%	46%
1979	18	0	18	61%	1963	13	70%	46%
1980	22	0	22	76%	1954	13	72%	46%
1981	14	0	14	47%	1922	13	73%	46%
1982	21	0	21	74%	1944	13	74%	44%
1983	24	0	24	82%	1957	13	75%	44%
1984	21	0	21	72%	1971	13	77%	44%
1985	14	0	14	50%	1927	12	78%	43%
1986	22	0	22	78%	1955	12	79%	43%
1987	9	0	9	32%	1926	12	80%	40%
1988	4	0	4	13%	2003	11	81%	38%
1989	18	0	18	62%	1961	11	83%	37%
1990	7	0	7	24%	1933	11	84%	37%
1991	3	0	3	12%	1949	11	85%	37%
1992	6	0	6	21%	1932	10	86%	35%
1993	14	0	14	50%	2001	10	88%	34%
1994	15	0	15	53%	1987	9	89%	32%
1995	17	0	17	58%	1990	7	90%	24%
1996	19	0	19	65%	1934	7	91%	24%
1997	21	0	21	72%	1992	6	93%	21%
1998	19	0	19	67%	1929	6	94%	20%
1999	15	0	15	52%	1931	5	95%	18%
2000	17	0	17	60%	1924	4	96%	14%
2001	10	0	10	34%	1988	4	98%	13%
2002	16	0	16	55%	1977	4	99%	13%
2003	11	0	11	38%	1991	3	100%	12%
Average	15	0	15	51%		15		51%
Maximum	24	0	24	82%		24		82%
Minimum	3	0	3	12%		3		12%

Table E.25. San Geronio Pass WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	8	0	8	46%	1969	14	0%	82%
1923	10	0	10	57%	1983	14	1%	82%
1924	2	0	2	14%	1938	14	2%	81%
1925	9	0	9	51%	1986	13	4%	78%
1926	7	0	7	40%	1980	13	5%	76%
1927	8	0	8	43%	1982	13	6%	74%
1928	10	0	10	57%	1997	13	7%	72%
1929	3	0	3	20%	1984	13	9%	72%
1930	9	0	9	50%	1937	12	10%	71%
1931	3	0	3	18%	1943	12	11%	70%
1932	6	0	6	35%	1956	12	12%	68%
1933	6	0	6	37%	1998	12	14%	67%
1934	4	0	4	24%	1941	11	15%	66%
1935	10	0	10	59%	1951	11	16%	66%
1936	11	0	11	61%	1978	11	17%	65%
1937	12	0	12	71%	1996	11	19%	65%
1938	14	0	14	81%	1970	11	20%	63%
1939	9	0	9	49%	1989	11	21%	62%
1940	9	0	9	52%	1936	11	22%	61%
1941	11	0	11	66%	1979	11	23%	61%
1942	8	0	8	48%	1966	10	25%	61%
1943	12	0	12	70%	2000	10	26%	60%
1944	8	0	8	44%	1958	10	27%	60%
1945	10	0	10	55%	1935	10	28%	59%
1946	9	0	9	54%	1972	10	30%	59%
1947	9	0	9	52%	1995	10	31%	58%
1948	8	0	8	46%	1928	10	32%	57%
1949	6	0	6	37%	1923	10	33%	57%
1950	9	0	9	53%	1968	10	35%	56%
1951	11	0	11	66%	1965	10	36%	56%
1952	9	0	9	54%	1945	10	37%	55%
1953	9	0	9	50%	1964	10	38%	55%
1954	8	0	8	46%	2002	9	40%	55%
1955	7	0	7	43%	1967	9	41%	55%
1956	12	0	12	68%	1946	9	42%	54%
1957	8	0	8	44%	1952	9	43%	54%
1958	10	0	10	60%	1959	9	44%	53%
1959	9	0	9	53%	1994	9	46%	53%
1960	9	0	9	50%	1950	9	47%	53%
1961	6	0	6	37%	1973	9	48%	53%
1962	8	0	8	48%	1999	9	49%	52%
1963	8	0	8	46%	1947	9	51%	52%
1964	10	0	10	55%	1940	9	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	10	0	10	56%	1925	9	53%	51%
1966	10	0	10	61%	1975	9	54%	51%
1967	9	0	9	55%	1976	9	56%	51%
1968	10	0	10	56%	1985	9	57%	50%
1969	14	0	14	82%	1993	9	58%	50%
1970	11	0	11	63%	1930	9	59%	50%
1971	8	0	8	44%	1960	9	60%	50%
1972	10	0	10	59%	1953	9	62%	50%
1973	9	0	9	53%	1939	9	63%	49%
1974	8	0	8	49%	1974	8	64%	49%
1975	9	0	9	51%	1962	8	65%	48%
1976	9	0	9	51%	1942	8	67%	48%
1977	2	0	2	13%	1981	8	68%	47%
1978	11	0	11	65%	1948	8	69%	46%
1979	11	0	11	61%	1963	8	70%	46%
1980	13	0	13	76%	1954	8	72%	46%
1981	8	0	8	47%	1922	8	73%	46%
1982	13	0	13	74%	1944	8	74%	44%
1983	14	0	14	82%	1957	8	75%	44%
1984	13	0	13	72%	1971	8	77%	44%
1985	9	0	9	50%	1927	8	78%	43%
1986	13	0	13	78%	1955	7	79%	43%
1987	6	0	6	32%	1926	7	80%	40%
1988	2	0	2	13%	1961	6	81%	37%
1989	11	0	11	62%	1933	6	83%	37%
1990	4	0	4	24%	1949	6	84%	37%
1991	2	0	2	12%	1932	6	85%	35%
1992	4	0	4	21%	2001	6	86%	34%
1993	9	0	9	50%	1987	6	88%	32%
1994	9	0	9	53%	2003	5	89%	31%
1995	10	0	10	58%	1990	4	90%	24%
1996	11	0	11	65%	1934	4	91%	24%
1997	13	0	13	72%	1992	4	93%	21%
1998	12	0	12	67%	1929	3	94%	20%
1999	9	0	9	52%	1931	3	95%	18%
2000	10	0	10	60%	1924	2	96%	14%
2001	6	0	6	34%	1988	2	98%	13%
2002	9	0	9	55%	1977	2	99%	13%
2003	5	0	5	31%	1991	2	100%	12%
Average	9	0	9	51%		9		51%
Maximum	14	0	14	82%		14		82%
Minimum	2	0	2	12%		2		12%

Table E.26. San Luis Obispo County FC&WCD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	11	0	11	46%	1983	21	0%	82%
1923	14	0	14	57%	1969	21	1%	82%
1924	3	0	3	14%	1938	20	2%	81%
1925	13	0	13	51%	1986	19	4%	78%
1926	10	0	10	40%	1980	19	5%	76%
1927	11	0	11	43%	1982	19	6%	74%
1928	14	0	14	57%	1997	18	7%	72%
1929	5	0	5	20%	1984	18	9%	72%
1930	13	0	13	50%	1937	18	10%	71%
1931	5	0	5	18%	1943	18	11%	70%
1932	9	0	9	35%	1956	17	12%	68%
1933	9	0	9	37%	1998	17	14%	67%
1934	6	0	6	24%	1941	16	15%	66%
1935	15	0	15	59%	1951	16	16%	66%
1936	15	0	15	61%	1978	16	17%	65%
1937	18	0	18	71%	1996	16	19%	65%
1938	20	0	20	81%	1970	16	20%	63%
1939	12	0	12	49%	1989	16	21%	62%
1940	13	0	13	52%	1936	15	22%	61%
1941	16	0	16	66%	1979	15	23%	61%
1942	12	0	12	48%	1966	15	25%	61%
1943	18	0	18	70%	2000	15	26%	60%
1944	11	0	11	44%	1958	15	27%	60%
1945	14	0	14	55%	1935	15	28%	59%
1946	14	0	14	54%	1972	15	30%	59%
1947	11	0	11	45%	1995	14	31%	58%
1948	12	0	12	46%	1928	14	32%	57%
1949	9	0	9	37%	1923	14	33%	57%
1950	13	0	13	53%	1968	14	35%	56%
1951	16	0	16	66%	1965	14	36%	56%
1952	14	0	14	54%	1945	14	37%	55%
1953	12	0	12	50%	1964	14	38%	55%
1954	12	0	12	46%	1967	14	40%	55%
1955	11	0	11	43%	1946	14	41%	54%
1956	17	0	17	68%	1952	14	42%	54%
1957	11	0	11	44%	1959	13	43%	53%
1958	15	0	15	60%	1994	13	44%	53%
1959	13	0	13	53%	2003	13	46%	53%
1960	12	0	12	50%	1950	13	47%	53%
1961	9	0	9	37%	1973	13	48%	53%
1962	12	0	12	48%	1999	13	49%	52%
1963	12	0	12	46%	1940	13	51%	52%
1964	14	0	14	55%	1925	13	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	14	0	14	56%	1975	13	53%	51%
1966	15	0	15	61%	1976	13	54%	51%
1967	14	0	14	55%	1985	13	56%	50%
1968	14	0	14	56%	1993	13	57%	50%
1969	21	0	21	82%	1930	13	58%	50%
1970	16	0	16	63%	1960	12	59%	50%
1971	11	0	11	44%	1953	12	60%	50%
1972	15	0	15	59%	1939	12	62%	49%
1973	13	0	13	53%	1974	12	63%	49%
1974	12	0	12	49%	1962	12	64%	48%
1975	13	0	13	51%	1942	12	65%	48%
1976	13	0	13	51%	1948	12	67%	46%
1977	3	0	3	13%	1963	12	68%	46%
1978	16	0	16	65%	1954	12	69%	46%
1979	15	0	15	61%	1922	11	70%	46%
1980	19	0	19	76%	1947	11	72%	45%
1981	11	0	11	43%	1944	11	73%	44%
1982	19	0	19	74%	1957	11	74%	44%
1983	21	0	21	82%	1971	11	75%	44%
1984	18	0	18	72%	1981	11	77%	43%
1985	13	0	13	50%	1927	11	78%	43%
1986	19	0	19	78%	1955	11	79%	43%
1987	8	0	8	32%	2002	10	80%	41%
1988	3	0	3	13%	1926	10	81%	40%
1989	16	0	16	62%	1961	9	83%	37%
1990	6	0	6	24%	1933	9	84%	37%
1991	3	0	3	12%	1949	9	85%	37%
1992	5	0	5	21%	1932	9	86%	35%
1993	13	0	13	50%	2001	8	88%	34%
1994	13	0	13	53%	1987	8	89%	32%
1995	14	0	14	58%	1990	6	90%	24%
1996	16	0	16	65%	1934	6	91%	24%
1997	18	0	18	72%	1992	5	93%	21%
1998	17	0	17	67%	1929	5	94%	20%
1999	13	0	13	52%	1931	5	95%	18%
2000	15	0	15	60%	1924	3	96%	14%
2001	8	0	8	34%	1988	3	98%	13%
2002	10	0	10	41%	1977	3	99%	13%
2003	13	0	13	53%	1991	3	100%	12%
Average	13	0	13	51%		13		51%
Maximum	21	0	21	82%		21		82%
Minimum	3	0	3	12%		3		12%

Table E.27. Santa Barbara County FC&WCD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	21	0	21	46%	1969	37	0%	82%
1923	26	0	26	57%	1969	37	1%	82%
1924	6	0	6	14%	1938	37	2%	81%
1925	23	0	23	51%	1986	35	4%	78%
1926	18	0	18	40%	1980	35	5%	76%
1927	20	0	20	43%	1982	34	6%	74%
1928	26	0	26	57%	1997	33	7%	72%
1929	9	0	9	20%	1984	33	9%	72%
1930	23	0	23	50%	1937	32	10%	71%
1931	8	0	8	18%	1943	32	11%	70%
1932	16	0	16	35%	1956	31	12%	68%
1933	17	0	17	37%	1998	31	14%	67%
1934	11	0	11	24%	1941	30	15%	66%
1935	27	0	27	59%	1951	30	16%	66%
1936	28	0	28	61%	1978	30	17%	65%
1937	32	0	32	71%	1996	30	19%	65%
1938	37	0	37	81%	1970	29	20%	63%
1939	16	0	16	35%	1936	28	21%	61%
1940	23	0	23	52%	1979	28	22%	61%
1941	30	0	30	66%	1966	28	23%	61%
1942	22	0	22	48%	2000	27	25%	60%
1943	32	0	32	70%	1958	27	26%	60%
1944	20	0	20	44%	1935	27	27%	59%
1945	25	0	25	55%	1972	27	28%	59%
1946	25	0	25	54%	1995	26	30%	58%
1947	14	0	14	30%	1928	26	31%	57%
1948	21	0	21	46%	1923	26	32%	57%
1949	17	0	17	37%	1989	26	33%	56%
1950	24	0	24	53%	1968	25	35%	56%
1951	30	0	30	66%	1965	25	36%	56%
1952	25	0	25	54%	1945	25	37%	55%
1953	23	0	23	50%	1964	25	38%	55%
1954	21	0	21	46%	1967	25	40%	55%
1955	20	0	20	43%	1946	25	41%	54%
1956	31	0	31	68%	1952	25	42%	54%
1957	20	0	20	44%	1959	24	43%	53%
1958	27	0	27	60%	1950	24	44%	53%
1959	24	0	24	53%	1973	24	46%	53%
1960	16	0	16	35%	1999	24	47%	52%
1961	8	0	8	17%	1940	23	48%	52%
1962	22	0	22	48%	1925	23	49%	51%
1963	21	0	21	46%	1975	23	51%	51%
1964	25	0	25	55%	1976	23	52%	51%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	25	0	25	56%	1985	23	53%	50%
1966	28	0	28	61%	1993	23	54%	50%
1967	25	0	25	55%	1930	23	56%	50%
1968	25	0	25	56%	1953	23	57%	50%
1969	37	0	37	82%	1974	22	58%	49%
1970	29	0	29	63%	1962	22	59%	48%
1971	20	0	20	44%	1942	22	60%	48%
1972	27	0	27	59%	1948	21	62%	46%
1973	24	0	24	53%	1963	21	63%	46%
1974	22	0	22	49%	1954	21	64%	46%
1975	23	0	23	51%	1922	21	65%	46%
1976	23	0	23	51%	1944	20	67%	44%
1977	6	0	6	13%	1957	20	68%	44%
1978	30	0	30	65%	1971	20	69%	44%
1979	28	0	28	61%	1927	20	70%	43%
1980	35	0	35	76%	1955	20	72%	43%
1981	19	0	19	41%	1981	19	73%	41%
1982	34	0	34	74%	1926	18	74%	40%
1983	37	0	37	82%	2003	17	75%	38%
1984	33	0	33	72%	1933	17	77%	37%
1985	23	0	23	50%	1949	17	78%	37%
1986	35	0	35	78%	1960	16	79%	35%
1987	15	0	15	32%	1939	16	80%	35%
1988	6	0	6	13%	1932	16	81%	35%
1989	26	0	26	56%	2001	15	83%	34%
1990	7	0	7	15%	1987	15	84%	32%
1991	5	0	5	12%	2002	15	85%	32%
1992	10	0	10	21%	1994	14	86%	31%
1993	23	0	23	50%	1947	14	88%	30%
1994	14	0	14	31%	1934	11	89%	24%
1995	26	0	26	58%	1992	10	90%	21%
1996	30	0	30	65%	1929	9	91%	20%
1997	33	0	33	72%	1931	8	93%	18%
1998	31	0	31	67%	1961	8	94%	17%
1999	24	0	24	52%	1990	7	95%	15%
2000	27	0	27	60%	1924	6	96%	14%
2001	15	0	15	34%	1988	6	98%	13%
2002	15	0	15	32%	1977	6	99%	13%
2003	17	0	17	38%	1991	5	100%	12%
Average	22	0	22	49%		22		49%
Maximum	37	0	37	82%		37		82%
Minimum	5	0	5	12%		5		12%

Table E.28. Santa Clara Valley WD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	46	0	46	46%	1983	82	0%	82%
1923	57	0	57	57%	1969	82	1%	82%
1924	14	0	14	14%	1938	81	2%	81%
1925	51	0	51	51%	1986	78	4%	78%
1926	40	0	40	40%	1980	76	5%	76%
1927	43	0	43	43%	1982	74	6%	74%
1928	57	0	57	57%	1997	72	7%	72%
1929	20	0	20	20%	1984	72	9%	72%
1930	50	0	50	50%	1937	71	10%	71%
1931	18	0	18	18%	1943	70	11%	70%
1932	35	0	35	35%	1956	68	12%	68%
1933	37	0	37	37%	1998	67	14%	67%
1934	24	0	24	24%	1941	66	15%	66%
1935	59	0	59	59%	1951	66	16%	66%
1936	61	0	61	61%	1978	65	17%	65%
1937	71	0	71	71%	1996	65	19%	65%
1938	81	0	81	81%	1970	63	20%	63%
1939	49	0	49	49%	1989	62	21%	62%
1940	52	0	52	52%	1936	61	22%	61%
1941	66	0	66	66%	1979	61	23%	61%
1942	48	0	48	48%	1966	61	25%	61%
1943	70	0	70	70%	2000	60	26%	60%
1944	44	0	44	44%	1958	60	27%	60%
1945	55	0	55	55%	1935	59	28%	59%
1946	54	0	54	54%	1972	59	30%	59%
1947	52	0	52	52%	2003	58	31%	58%
1948	46	0	46	46%	1995	58	32%	58%
1949	37	0	37	37%	1928	57	33%	57%
1950	53	0	53	53%	1923	57	35%	57%
1951	66	0	66	66%	1968	56	36%	56%
1952	54	0	54	54%	1965	56	37%	56%
1953	50	0	50	50%	1945	55	38%	55%
1954	46	0	46	46%	1964	55	40%	55%
1955	43	0	43	43%	2002	55	41%	55%
1956	68	0	68	68%	1967	55	42%	55%
1957	44	0	44	44%	1946	54	43%	54%
1958	60	0	60	60%	1952	54	44%	54%
1959	53	0	53	53%	1959	53	46%	53%
1960	50	0	50	50%	1994	53	47%	53%
1961	37	0	37	37%	1950	53	48%	53%
1962	48	0	48	48%	1973	53	49%	53%
1963	46	0	46	46%	1999	52	51%	52%
1964	55	0	55	55%	1947	52	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	56	0	56	56%	1940	52	53%	52%
1966	61	0	61	61%	1925	51	54%	51%
1967	55	0	55	55%	1975	51	56%	51%
1968	56	0	56	56%	1976	51	57%	51%
1969	82	0	82	82%	1985	50	58%	50%
1970	63	0	63	63%	1993	50	59%	50%
1971	44	0	44	44%	1930	50	60%	50%
1972	59	0	59	59%	1960	50	62%	50%
1973	53	0	53	53%	1953	50	63%	50%
1974	49	0	49	49%	1939	49	64%	49%
1975	51	0	51	51%	1974	49	65%	49%
1976	51	0	51	51%	1962	48	67%	48%
1977	13	0	13	13%	1942	48	68%	48%
1978	65	0	65	65%	1981	47	69%	47%
1979	61	0	61	61%	1948	46	70%	46%
1980	76	0	76	76%	1963	46	72%	46%
1981	47	0	47	47%	1954	46	73%	46%
1982	74	0	74	74%	1922	46	74%	46%
1983	82	0	82	82%	1944	44	75%	44%
1984	72	0	72	72%	1957	44	77%	44%
1985	50	0	50	50%	1971	44	78%	44%
1986	78	0	78	78%	1927	43	79%	43%
1987	32	0	32	32%	1955	43	80%	43%
1988	13	0	13	13%	1926	40	81%	40%
1989	62	0	62	62%	1961	37	83%	37%
1990	24	0	24	24%	1933	37	84%	37%
1991	12	0	12	12%	1949	37	85%	37%
1992	21	0	21	21%	1932	35	86%	35%
1993	50	0	50	50%	2001	34	88%	34%
1994	53	0	53	53%	1987	32	89%	32%
1995	58	0	58	58%	1990	24	90%	24%
1996	65	0	65	65%	1934	24	91%	24%
1997	72	0	72	72%	1992	21	93%	21%
1998	67	0	67	67%	1929	20	94%	20%
1999	52	0	52	52%	1931	18	95%	18%
2000	60	0	60	60%	1924	14	96%	14%
2001	34	0	34	34%	1988	13	98%	13%
2002	55	0	55	55%	1977	13	99%	13%
2003	58	0	58	58%	1991	12	100%	12%
Average	51	0	51	51%		51		51%
Maximum	82	0	82	82%		82		82%
Minimum	12	0	12	12%		12		12%

Table E.29. Solano County WA: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	48	0	48	100%	1938	48	0%	100%
1923	40	0	40	84%	1938	48	1%	100%
1924	12	0	12	25%	1938	48	2%	100%
1925	23	0	23	48%	1938	48	4%	100%
1926	23	0	23	48%	1938	48	5%	100%
1927	44	0	44	93%	1938	48	6%	100%
1928	44	0	44	93%	1922	48	7%	100%
1929	12	0	12	25%	1922	48	9%	100%
1930	23	0	23	48%	1922	48	10%	100%
1931	12	0	12	25%	1922	48	11%	100%
1932	12	0	12	25%	1963	48	12%	100%
1933	12	0	12	25%	1963	48	14%	100%
1934	12	0	12	25%	1963	48	15%	100%
1935	23	0	23	48%	1963	48	16%	100%
1936	40	0	40	84%	1942	48	17%	100%
1937	23	0	23	48%	1942	48	19%	100%
1938	48	0	48	100%	1942	48	20%	100%
1939	40	0	40	84%	1942	48	21%	100%
1940	44	0	44	93%	1942	48	22%	100%
1941	48	0	48	100%	1942	48	23%	100%
1942	48	0	48	100%	1942	48	25%	100%
1943	48	0	48	100%	1942	48	26%	100%
1944	23	0	23	48%	1942	48	27%	100%
1945	40	0	40	84%	1942	48	28%	100%
1946	44	0	44	93%	1942	48	30%	100%
1947	23	0	23	48%	1942	48	31%	100%
1948	40	0	40	84%	1927	44	32%	93%
1949	23	0	23	48%	1927	44	33%	93%
1950	23	0	23	48%	1927	44	35%	93%
1951	44	0	44	93%	1927	44	36%	93%
1952	48	0	48	100%	1927	44	37%	93%
1953	48	0	48	100%	1927	44	38%	93%
1954	44	0	44	93%	1927	44	40%	93%
1955	23	0	23	48%	1927	44	41%	93%
1956	48	0	48	100%	1927	44	42%	93%
1957	44	0	44	93%	1940	44	43%	93%
1958	48	0	48	100%	1940	44	44%	93%
1959	40	0	40	84%	1940	44	46%	93%
1960	23	0	23	48%	2003	43	47%	91%
1961	23	0	23	48%	1923	40	48%	84%
1962	40	0	40	84%	1923	40	49%	84%
1963	48	0	48	100%	1923	40	51%	84%
1964	23	0	23	48%	1923	40	52%	84%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	100%	1923	40	53%	84%
1966	40	0	40	84%	1923	40	54%	84%
1967	48	0	48	100%	1923	40	56%	84%
1968	40	0	40	84%	1923	40	57%	84%
1969	48	0	48	100%	1923	40	58%	84%
1970	48	0	48	100%	1923	40	59%	84%
1971	48	0	48	100%	1923	40	60%	84%
1972	40	0	40	84%	1925	23	62%	48%
1973	44	0	44	93%	1925	23	63%	48%
1974	48	0	48	100%	1925	23	64%	48%
1975	48	0	48	100%	1925	23	65%	48%
1976	23	0	23	48%	1925	23	67%	48%
1977	11	0	11	23%	1925	23	68%	48%
1978	44	0	44	93%	1925	23	69%	48%
1979	23	0	23	48%	1925	23	70%	48%
1980	44	0	44	93%	1925	23	72%	48%
1981	23	0	23	48%	1925	23	73%	48%
1982	48	0	48	100%	1925	23	74%	48%
1983	48	0	48	100%	1925	23	75%	48%
1984	48	0	48	100%	1925	23	77%	48%
1985	40	0	40	84%	1925	23	78%	48%
1986	48	0	48	100%	1925	23	79%	48%
1987	23	0	23	48%	1925	23	80%	48%
1988	12	0	12	25%	1925	23	81%	48%
1989	23	0	23	48%	1937	23	83%	48%
1990	12	0	12	25%	1937	23	84%	48%
1991	12	0	12	25%	1937	23	85%	48%
1992	12	0	12	25%	1924	12	86%	25%
1993	44	0	44	93%	1924	12	88%	25%
1994	12	0	12	25%	1924	12	89%	25%
1995	48	0	48	100%	1931	12	90%	25%
1996	48	0	48	100%	1931	12	91%	25%
1997	48	0	48	100%	1931	12	93%	25%
1998	48	0	48	100%	1931	12	94%	25%
1999	48	0	48	100%	1931	12	95%	25%
2000	44	0	44	93%	1931	12	96%	25%
2001	23	0	23	48%	1931	12	98%	25%
2002	23	0	23	48%	1931	12	99%	25%
2003	43	0	43	91%	1977	11	100%	23%
Average	35	0	35	73%		35		73%
Maximum	48	0	48	100%		48		100%
Minimum	11	0	11	23%		11		23%

Table E.30. Tulare Lake Basin WSD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	41	0	41	46%	1969	73	0%	82%
1923	51	0	51	57%	1969	73	1%	82%
1924	12	0	12	14%	1938	72	2%	81%
1925	46	0	46	51%	1986	69	4%	78%
1926	36	0	36	40%	1980	68	5%	76%
1927	39	0	39	43%	1982	66	6%	74%
1928	51	0	51	57%	1997	64	7%	72%
1929	17	0	17	20%	1984	64	9%	72%
1930	45	0	45	50%	1937	63	10%	71%
1931	16	0	16	18%	1943	63	11%	70%
1932	31	0	31	35%	1956	61	12%	68%
1933	33	0	33	37%	1998	60	14%	67%
1934	21	0	21	24%	1941	59	15%	66%
1935	52	0	52	59%	1951	58	16%	66%
1936	55	0	55	61%	1978	58	17%	65%
1937	63	0	63	71%	1996	58	19%	65%
1938	72	0	72	81%	1970	56	20%	63%
1939	33	0	33	37%	1936	55	21%	61%
1940	46	0	46	52%	1979	55	22%	61%
1941	59	0	59	66%	1966	54	23%	61%
1942	42	0	42	48%	2000	53	25%	60%
1943	63	0	63	70%	1958	53	26%	60%
1944	39	0	39	44%	1935	52	27%	59%
1945	49	0	49	55%	1972	52	28%	59%
1946	48	0	48	54%	1995	51	30%	58%
1947	33	0	33	37%	1928	51	31%	57%
1948	41	0	41	46%	1923	51	32%	57%
1949	33	0	33	37%	1968	50	33%	56%
1950	47	0	47	53%	1965	49	35%	56%
1951	58	0	58	66%	1945	49	36%	55%
1952	48	0	48	54%	1964	49	37%	55%
1953	44	0	44	50%	1967	49	38%	55%
1954	41	0	41	46%	1946	48	40%	54%
1955	38	0	38	43%	1952	48	41%	54%
1956	61	0	61	68%	1959	48	42%	53%
1957	39	0	39	44%	1950	47	43%	53%
1958	53	0	53	60%	1973	47	44%	53%
1959	48	0	48	53%	1999	46	46%	52%
1960	32	0	32	36%	1940	46	47%	52%
1961	17	0	17	19%	1925	46	48%	51%
1962	43	0	43	48%	1975	46	49%	51%
1963	41	0	41	46%	1976	45	51%	51%
1964	49	0	49	55%	2003	45	52%	50%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	49	0	49	56%	1985	45	53%	50%
1966	54	0	54	61%	1993	45	54%	50%
1967	49	0	49	55%	1930	45	56%	50%
1968	50	0	50	56%	1989	45	57%	50%
1969	73	0	73	82%	1953	44	58%	50%
1970	56	0	56	63%	1974	43	59%	49%
1971	39	0	39	44%	1962	43	60%	48%
1972	52	0	52	59%	1942	42	62%	48%
1973	47	0	47	53%	1948	41	63%	46%
1974	43	0	43	49%	1963	41	64%	46%
1975	46	0	46	51%	1954	41	65%	46%
1976	45	0	45	51%	1922	41	67%	46%
1977	12	0	12	13%	1944	39	68%	44%
1978	58	0	58	65%	1957	39	69%	44%
1979	55	0	55	61%	1971	39	70%	44%
1980	68	0	68	76%	1927	39	72%	43%
1981	32	0	32	36%	1955	38	73%	43%
1982	66	0	66	74%	1926	36	74%	40%
1983	73	0	73	82%	1947	33	75%	37%
1984	64	0	64	72%	1939	33	77%	37%
1985	45	0	45	50%	1933	33	78%	37%
1986	69	0	69	78%	1949	33	79%	37%
1987	17	0	17	19%	1960	32	80%	36%
1988	12	0	12	13%	1981	32	81%	36%
1989	45	0	45	50%	1932	31	83%	35%
1990	13	0	13	14%	2001	30	84%	34%
1991	10	0	10	12%	1934	21	85%	24%
1992	19	0	19	21%	2002	21	86%	24%
1993	45	0	45	50%	1994	19	88%	21%
1994	19	0	19	21%	1992	19	89%	21%
1995	51	0	51	58%	1929	17	90%	20%
1996	58	0	58	65%	1961	17	91%	19%
1997	64	0	64	72%	1987	17	93%	19%
1998	60	0	60	67%	1931	16	94%	18%
1999	46	0	46	52%	1990	13	95%	14%
2000	53	0	53	60%	1924	12	96%	14%
2001	30	0	30	34%	1988	12	98%	13%
2002	21	0	21	24%	1977	12	99%	13%
2003	45	0	45	50%	1991	10	100%	12%
Average	44	0	44	49%		44		49%
Maximum	73	0	73	82%		73		82%
Minimum	10	0	10	12%		10		12%

Table E.31. Ventura County WPD: 2015 DCR ECLO

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	9	0	9	46%	1969	16	0%	82%
1923	11	0	11	57%	1969	16	1%	82%
1924	3	0	3	14%	1938	16	2%	81%
1925	10	0	10	51%	1986	16	4%	78%
1926	8	0	8	40%	1980	15	5%	76%
1927	9	0	9	43%	1982	15	6%	74%
1928	11	0	11	57%	1997	14	7%	72%
1929	4	0	4	20%	1984	14	9%	72%
1930	10	0	10	50%	1937	14	10%	71%
1931	4	0	4	18%	1943	14	11%	70%
1932	7	0	7	35%	1956	14	12%	68%
1933	7	0	7	37%	1998	13	14%	67%
1934	5	0	5	24%	1941	13	15%	66%
1935	12	0	12	59%	1951	13	16%	66%
1936	12	0	12	61%	1978	13	17%	65%
1937	14	0	14	71%	1996	13	19%	65%
1938	16	0	16	81%	1970	13	20%	63%
1939	10	0	10	49%	1989	12	21%	62%
1940	10	0	10	52%	1936	12	22%	61%
1941	13	0	13	66%	1979	12	23%	61%
1942	10	0	10	48%	1966	12	25%	61%
1943	14	0	14	70%	2000	12	26%	60%
1944	9	0	9	44%	1958	12	27%	60%
1945	11	0	11	55%	1935	12	28%	59%
1946	11	0	11	54%	1972	12	30%	59%
1947	10	0	10	52%	1995	12	31%	58%
1948	9	0	9	46%	1928	11	32%	57%
1949	7	0	7	37%	1923	11	33%	57%
1950	11	0	11	53%	1968	11	35%	56%
1951	13	0	13	66%	1965	11	36%	56%
1952	11	0	11	54%	1945	11	37%	55%
1953	10	0	10	50%	1964	11	38%	55%
1954	9	0	9	46%	2002	11	40%	55%
1955	9	0	9	43%	1967	11	41%	55%
1956	14	0	14	68%	1946	11	42%	54%
1957	9	0	9	44%	1952	11	43%	54%
1958	12	0	12	60%	1959	11	44%	53%
1959	11	0	11	53%	1994	11	46%	53%
1960	10	0	10	50%	1950	11	47%	53%
1961	7	0	7	37%	1973	11	48%	53%
1962	10	0	10	48%	2003	10	49%	52%
1963	9	0	9	46%	1999	10	51%	52%
1964	11	0	11	55%	1947	10	52%	52%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	11	0	11	56%	1940	10	53%	52%
1966	12	0	12	61%	1925	10	54%	51%
1967	11	0	11	55%	1975	10	56%	51%
1968	11	0	11	56%	1976	10	57%	51%
1969	16	0	16	82%	1985	10	58%	50%
1970	13	0	13	63%	1993	10	59%	50%
1971	9	0	9	44%	1930	10	60%	50%
1972	12	0	12	59%	1960	10	62%	50%
1973	11	0	11	53%	1953	10	63%	50%
1974	10	0	10	49%	1939	10	64%	49%
1975	10	0	10	51%	1974	10	65%	49%
1976	10	0	10	51%	1962	10	67%	48%
1977	3	0	3	13%	1942	10	68%	48%
1978	13	0	13	65%	1981	9	69%	47%
1979	12	0	12	61%	1948	9	70%	46%
1980	15	0	15	76%	1963	9	72%	46%
1981	9	0	9	47%	1954	9	73%	46%
1982	15	0	15	74%	1922	9	74%	46%
1983	16	0	16	82%	1944	9	75%	44%
1984	14	0	14	72%	1957	9	77%	44%
1985	10	0	10	50%	1971	9	78%	44%
1986	16	0	16	78%	1927	9	79%	43%
1987	6	0	6	32%	1955	9	80%	43%
1988	3	0	3	13%	1926	8	81%	40%
1989	12	0	12	62%	1961	7	83%	37%
1990	5	0	5	24%	1933	7	84%	37%
1991	2	0	2	12%	1949	7	85%	37%
1992	4	0	4	21%	1932	7	86%	35%
1993	10	0	10	50%	2001	7	88%	34%
1994	11	0	11	53%	1987	6	89%	32%
1995	12	0	12	58%	1990	5	90%	24%
1996	13	0	13	65%	1934	5	91%	24%
1997	14	0	14	72%	1992	4	93%	21%
1998	13	0	13	67%	1929	4	94%	20%
1999	10	0	10	52%	1931	4	95%	18%
2000	12	0	12	60%	1924	3	96%	14%
2001	7	0	7	34%	1988	3	98%	13%
2002	11	0	11	55%	1977	3	99%	13%
2003	10	0	10	52%	1991	2	100%	12%
Average	10	0	10	51%		10		51%
Maximum	16	0	16	82%		16		82%
Minimum	2	0	2	12%		2		12%



Appendix F:

Alternative 4 H3 Scenario

Introduction

The purpose of this appendix is to provide information for an alternative to the 2015 Delivery Capability Report (DCR) Base Study: the Alternative 4 H3 study (referred to as 2015 DCR Alt 4). According to the Bay Delta Conservation Plan (BDCP) EIR/EIS, this study assumes early long-term climate change and is a CEQA proposed project by which water will be conveyed from the north Delta to the south Delta through the proposed Isolated Facility. Presented in the following sections are:

- Model assumptions
- Simulation results
 - Annual delivery for Table A, Article 56, and Article 21
 - SWP Contractor annual deliveries

Overview of Model Assumptions

The 2015 DCR Alt 4 study is created by merging the existing conditions base study (featured in the 2015 DCR main report) with assumptions for ELT climate change and BDCP Alternative 4. The assumptions specific to BDCP Alternative 4 are described in *Public Draft BDCP EIR/EIS Chapter 3 – Description of Alternatives*, which can be accessed through the following link: http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Public_Draft_BDCP_EIR-EIS_Chapter_3_-_Description_of_Alternatives.sflb.ashx

The system-wide CalSim II modeling assumptions are presented in Table F.1 of this section, with details in provided in their respective endnotes. Within those overall modeling assumptions, those specific to Alternative 4 H3 are summarized here:

- Early Long-Term climate change conditions (2025) with sea level rise of 15 cm
- Isolated facility with 9,000 cfs diversion capacity near Hood
- North and south Delta intakes operation criteria
- Modified Fremont Weir, control gates and Yolo Bypass inundation criteria
- Additional criteria for Rio Vista minimum flows
- South Delta operating restrictions (Scenario 6)
- Increased Banks permitted capacity to 10,300 cfs
- BDCP operation scenario H3, which excludes Enhanced Spring Outflow and includes Fall X2

Table F.1 CalSim II Modeling Assumptions for 2015 DCR Alt 4

	Alt 4 Assumptions
Planning Horizon	2025
Period of Simulation	82 years (1922-2003)
HYDROLOGY	
Level of Development (land use)	2030 Level ²
Climate Change	ELT (2025 emission level + 15 cm SLR)
Natural Community Protection and Restoration Conservation Measures	25,000 acres
DEMANDS	
North of Delta (excluding the American River)	
CVP	Land-use based, full build-out of contract amounts ³
SWP (FRSA)	Land-use based, limited by contract amounts ^{4, 7}
Non-project	Land-use based, limited by water rights and SWRCB Decisions for Existing Facilities
Antioch Water Works	Pre-1914 water right
Federal refuges	Firm Level 2 water needs ⁵
American River Basin	
Water rights	Year 2025, full water rights ⁶
CVP	Year 2025, full contracts, including Freeport Regional Water Project ⁶
San Joaquin River Basin⁸	
Friant Unit	Limited by contract amounts, based on current allocation policy
Lower basin	Land-use based, based on district level operations and constraints
Stanislaus River basin ^{9, 17}	Land-use based, based on New Melones Interim Operations Plan, up to full CVP Contractor deliveries (155 TAF/yr) depending on New Melones Index
South of Delta	
CVP	Demand based on contract amounts ³
Federal refuges	Firm Level 2 water needs ⁵
CCWD	195 TAF/yr CVP contract supply and water rights ¹⁰
SWP ^{4, 11}	Demand based on full Table A amounts (4.13 MAF/yr)
Article 56	Based on 2001-2008 contractor requests
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity

Alt 4 Assumptions	
North Bay Aqueduct	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
FACILITIES	
System-wide	Existing facilities and Isolated Facility
Isolated Facility	North Delta Diversion: maximum capacity of 9,000 cfs, diversion point near Hood
Sacramento Valley	
Shasta Lake	Existing, 4,552 TAF capacity
Red Bluff Diversion Dam	Diversion dam operated with gates out all year, NMFS BO (Jun 2009) Action I.3.1 ¹⁷ ; assume permanent facilities in place
Colusa Basin	Existing conveyance and storage facilities
Lower American River	Hodge criteria for diversion at Fairbairn
Upper American River	PCWA American River pump station
Lower Sacramento River	Freeport Regional Water Project
Fremont Weir	Modified Fremont Weir and control gates ²²
Delta Export Conveyance	
SWP Banks Pumping Plant (South Delta)	Allowed to pump up to the physical capacity (10,300 cfs)
CVP C.W. "Bill" Jones Pumping Plant (formerly Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal-California Aqueduct Intertie)
Upper Delta-Mendota Canal Capacity	Exports limited to 4,200 cfs plus diversion upstream from DMC constriction plus 400 cfs Delta-Mendota Canal-California Aqueduct Intertie
Los Vaqueros Reservoir	Enlarged storage capacity (160 TAF), existing pump location, Alternate Intake Project included ¹³
San Joaquin River	
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30 mgd capacity
South of Delta (CVP/SWP project facilities)	
South Bay Aqueduct	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 point
California Aqueduct East Branch	Existing capacity
REGULATORY STANDARDS	
Trinity River	

	Alt 4 Assumptions
Minimum Flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF/yr as able)
Clear Creek	
Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows ²⁰ , and NMFS BO (Jun 2009) Action I.1.1 ¹⁷
Upper Sacramento River	
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1 ¹⁷
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2 ¹⁷
Feather River	
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG agreement (750 – 1,700 cfs)
Yuba River	
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ¹⁴
American River	
Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1 ¹⁷
Minimum flow at H Street Bridge	SWRCB D-893
Lower Sacramento River	
Minimum flow near Rio Vista	Sep-Dec: SWRCB D-1641; Jan-Aug: minimum of 3,000 cfs
Mokelumne River	
Minimum flow below Camanche Dam	Federal Energy Regulatory Commission 2916-029 ¹² , 1996 (Joint Settlement Agreement) (100 – 325 cfs)
Minimum flow below Woodbridge	Federal Energy Regulatory Commission 2916-029, 1996 (Joint Settlement

	Alt 4 Assumptions
Diversion Dam	Agreement) (25 – 300 cfs)
Stanislaus River	
Minimum flow below Goodwin Dam	1987 Reclamation, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
Minimum dissolved oxygen	SWRCB D-1422
Merced River	
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180 – 220 cfs, Nov – Mar), and Cowell Agreement
Minimum flow at Shaffer Bridge	Federal Energy Regulatory Commission 2179 (25 – 100 cfs)
Tuolumne River	
Minimum flow at Lagrange Bridge	Federal Energy Regulatory Commission 2299-024, 1995 (Settlement Agreement) (94 – 301 TAF/yr)
Updated Tuolumne River	New Don Pedro operations
San Joaquin River	
San Joaquin River below Friant Dam/Mendota Pool	Full San Joaquin River Restoration flows
Maximum salinity near Vernalis	SWRCB D-1641
Minimum flow near Vernalis	SWRCB D1641; VAMP is turned off since the San Joaquin River Agreement has expired. ¹⁶ NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water
Sacramento-San Joaquin Delta	
North Delta Diversion Bypass Flow	BDCP Criteria for North Delta Bypass Flows ²³
Delta Outflow Index (flow and salinity)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4 ¹⁷
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 ¹⁷ (closed during flushing flows from Oct 1-Dec 14 unless adverse water quality conditions)
South Delta exports (Jones PP and Banks PP)	SWRCB D-1641 export limits as required by NMFS BO (June 2009) Action IV.2.1 Phase II ¹⁷ (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP) ¹⁹
Combined Flow in Old and Middle River (OMR)	More positive of the Base assumptions and BDCP Scenario 6 OMR Criteria ^{25, 26}
OPERATIONS CRITERIA: RIVER-SPECIFIC	
Upper Sacramento River	
Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4 ¹⁷ ; 3,250 – 5,000 cfs based on CVP water supply condition

Alt 4 Assumptions	
American River	
Folsom Dam flood control	Variable 400/670 flood control diagram (without outlet modifications)
Feather River	
Flow at mouth of Feather River (above Verona)	Maintain the DFG/DWR flow target of 2,800 cfs for Apr - Sep dependent on Oroville inflow and FRSA allocation
Stanislaus River	
Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3 ¹⁷
San Joaquin River	
Salinity at Vernalis	Grasslands Bypass Project (full implementation)
OPERATIONS CRITERIA: SYSTEMWIDE	
North and South Delta Intakes	
Water quality and residence time	Jul-Sep: prefer south Delta pumping up to 3,000 cfs before diverting from North. Oct-Jun: prefer North Delta pumping (real-time operation flexibility)
CVP Water Allocation	
CVP settlement and exchange	100% (75% in Shasta critical years)
CVP refuges	100% (75% in Shasta critical years)
CVP agriculture	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
CVP municipal & industrial	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
SWP Water Allocation	
North of Delta (FRSA)	Contract-specific NOD Allocation Settlement Agreement terms for Butte and Yuba ¹⁵
South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷ NOD Allocation Settlement Agreement terms for Napa and Solano ¹⁵
CVP/SWP Coordinated Operations	
Sharing of responsibility for in-basin use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)
Sharing of surplus flows	1986 Coordinated Operations Agreement

Alt 4 Assumptions	
Sharing of restricted export capacity for project-specific priority pumping	Equal sharing of export capacity under SWRCB D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions ¹⁷
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors ¹⁹
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF
CVPIA 3406(b)(2)	
Policy decision	Per May 2003 Department of Interior decision
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO (Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions ¹⁷
Accounting adjustments	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009) ¹⁷ , no accounting
WATER MANAGEMENT ACTIONS	
Water Transfer Supplies (long term programs)	
Lower Yuba River Accord ¹⁹	Yuba River acquisitions for reducing impact of NMFS BO export restrictions ¹⁷ on SWP
Phase 8	None
Water Transfers (short term or temporary programs)	
Sacramento Valley acquisitions conveyed through Banks PP ²¹	Post analysis of available capacity

Notes:

- ¹ These assumptions have been developed under the direction of the Department of Water Resources and Bureau of Reclamation management team for the BDCP HCP and EIR/EIS. Additional modifications were made by Reclamation for its October 2014 NEPA NAA baselines and by DWR for the 2015 DCR.
- ² The Sacramento Valley hydrology used in the Existing Condition CalSim-II model reflects 2020 land-use assumptions associated with Bulletin 160-98. The San Joaquin Valley hydrology reflects draft 2030 land-use assumptions developed by Reclamation to support Reclamation studies.
- ³ CVP contract amounts have been reviewed and updated according to existing and amended contracts, as appropriate. Assumptions regarding CVP agricultural and M&I service contracts and Settlement Contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁴ SWP contract amounts have been updated as appropriate based on recent Table A transfers/agreements. Assumptions regarding SWP agricultural and M&I contract amounts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document.
- ⁵ Water needs for Federal refuges have been reviewed and updated, as appropriate. Assumptions regarding firm Level 2 refuge water needs are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. Refuge Level 4 (and incremental Level 4) water is not included.
- ⁶ Assumptions regarding American River water rights and CVP contracts are documented in the Delivery Specifications attachments to the BDCP CalSim assumptions document. The Sacramento Area Water Forum agreement, its dry year diversion reductions, Middle Fork Project operations and “mitigation” water is not included.
- ⁷ Demand for rice straw decomposition water from Thermalito Afterbay was added to the model and updated to reflect historical diversion from Thermalito in the October through January period.
- ⁸ The new CalSim-II representation of the San Joaquin River has been included in this model package (CalSim-II San Joaquin River Model, Reclamation, 2005). Updates to the San Joaquin River have been included since the preliminary model release in August 2005. The model reflects the difficulties of on-going groundwater overdraft problems. The 2030 level of development representation of the San Joaquin River Basin does not make any attempt to offer solutions to groundwater overdraft problems. In addition a dynamic groundwater simulation is not yet developed for the San Joaquin River Valley. Groundwater extraction/ recharge and stream-groundwater interaction are static assumptions and may not accurately reflect a response to simulated actions. These limitations should be considered in the analysis of result
- ⁹ The CALSIM II model representation for the Stanislaus River does not necessarily represent Reclamation’s current or future operational policies. A suitable plan for supporting flows has not been developed for NMFS BO (Jun 2009) Action III.1.3.
- ¹⁰ The actual amount diverted is reduced because of supplies from the Los Vaqueros project. The existing Los Vaqueros storage capacity is 100 TAF, and future storage capacity is 160 TAF. Associated water rights for Delta excess flows are included.
- ¹¹ Under Existing Conditions and the Future No Action baseline, it is assumed that SWP Contractors can take delivery of all Table A allocations and Article 21 supplies. Article 56 provisions are assumed and allow for SWP Contractors to manage storage and delivery conditions such that full Table A allocations can be delivered. Article 21 deliveries are limited in wet years under the assumption that demand is decreased in these conditions. Article 21 deliveries for the NBA are dependent on excess conditions only, all other Article 21 deliveries also require that San Luis Reservoir be at capacity and that Banks PP and the California Aqueduct have available capacity to divert from the Delta for direct delivery.
- ¹² Mokelumne River flows reflect EBMUD supplies associated with the Freeport Regional Water Project.

- ¹³ The CCWD Alternate Intake Project, an intake at Victoria Canal, which operates as an alternate Delta diversion for Los Vaqueros Reservoir.
- ¹⁴ D-1644 and the Lower Yuba River Accord are assumed to be implemented for Existing baselines. The Yuba River is not dynamically modeled in CALSIM II. Yuba River hydrology and availability of water acquisitions under the Lower Yuba River Accord are based on modeling performed and provided by the Lower Yuba River Accord EIS/EIR study team.
- ¹⁵ This includes draft logic for the updated Allocation Settlement Agreement for four NOD contractors: Butte, Yuba, Napa and Solano.
- ¹⁶ It is assumed that D-1641 requirements will be in place in 2030, and VAMP is turned off.
- ¹⁷ In cooperation with Reclamation, National Marine Fisheries Service, Fish and Wildlife Service, and CA Department of Fish and Game, the CA Department of Water Resources has developed assumptions for implementation of the FWS BO (Dec 15th 2008) and NMFS BO (June 4th 2009) in CALSIM II.
- ¹⁸ Current ACOE permit for Banks PP allows for an average diversion rate of 6,680 cfs in all months. Diversion rate can increase up to 1/3 of the rate of San Joaquin River flow at Vernalis during Dec 15th – Mar 15th up to a maximum diversion of 8,500 cfs, if Vernalis flow exceeds 1,000 cfs.
- ¹⁹ Acquisitions of Component 1 water under the Lower Yuba River Accord, and use of 500 cfs dedicated capacity at Banks PP during Jul – Sep, are assumed to be used to reduce as much of the impact of the Apr-May Delta export actions on SWP contractors as possible.
- ²⁰ Delta actions, under USFWS discretionary use of CVPIA 3406(b)(2) allocations, are no longer dynamically operated and accounted for in the CALSIM II model. The Combined Old and Middle River Flow and Delta Export restrictions under the FWS BO (Dec 15th 2008) and the NMFS BO (June 4th 2009) severely limit any discretion that would have been otherwise assumed in selecting Delta actions under the CVPIA 3406(b)(2) accounting criteria. Therefore, it is anticipated that CVPIA 3406(b)(2) account availability for upstream river flows below Whiskeytown, Keswick and Nimbus Dams would be very limited. It appears the integration of BO RPA actions will likely exceed the 3406(b)(2) allocation in all water year types. For these baseline simulations, upstream flows on the Clear Creek and Sacramento River are pre-determined based on CVPIA 3406(b)(2) based operations from the Aug 2008 BA Study 7.0 and Study 8.0 for Existing and Future No Action baselines respectively. The procedures for dynamic operation and accounting of CVPIA 3406(b)(2) are not included in the CALSIM II model.
- ²¹ Only acquisitions of Lower Yuba River Accord Component 1 water are included.
- ²² Fremont Weir: Improve fish passage at existing weir elevation; construct opening and operable gates at elevation 17.5 feet with fish passage facilities; construct opening and operable gates at a smaller opening with fish passage at elevation 11.5 feet.
- ²³ Criteria North Delta Diversion Bypass Flows:
- **Constant Low-Level-Pumping:** Diversions up to 6% of river flow for flows greater than 5,000 cfs (No diversion if it would cause downstream flow less than 5,000 cfs). No more than 300 cfs at any one intake.
 - **Initial Pulse Protection:** Low level pumping maintained through the initial pulse period. For the purpose of monitoring, the initiation of the pulse is defined by the following criteria: (1) Wilkins Slough flow changing by more than 45% over a five day period and (2) flow greater than 12,000 cfs. Low-level pumping continues until (1) Wilkins Slough returns to prepulse flows (flow on first day of 5-day increase), (2) Wilkins Slough flows decrease for 5 consecutive days, or (3) Bypass flows are greater than 20,000 cfs for 10 consecutive days. After pulse period has ended, operations will return to the bypass flow table (SubTable A). If the first flush begins before Dec 1, a second pulse period will have the same protective operation.
 - **Post-Pulse Operations:** After initial pulse(s), apply Level I post-pulse bypass rule (see SubTable A) until 15 total days of bypass flows above 20,000 cfs. Then apply Level II post-pulse bypass rule until 30 total days of bypass flows above 20,000 cfs. Then apply Level III post-pulse bypass rule.

- ²⁴ Enhanced Spring Delta Outflow required during the Mar-May period. This additional Mar-May Delta Outflow requirement is determined based on a forecasted Mar-May Eight River Index (8RI). For modeling purposes the Mar-May 8RI was forecasted based on a correlation between the actual Jan-Feb 8RI and actual Mar-May 8RI. Each year in March, Spring Delta Outflow target for the Mar-May period is determined based on the forecasted Mar-May 8RI value and its exceedance probability from the schedule below, linearly interpolating for values in-between. This additional spring outflow is not considered as an "in-basin use" for CVP-SWP Coordinated Operations. This outflow requirement is met through first by curtailing Delta exports at Banks and Jones Pumping Plants by an amount needed to meet the outflow target, such that the minimum exports are at least 1,500 cfs. In wetter years (< 50% exceedance), if the outflow target is not achieved by export curtailments, then the additional flow needed to meet the outflow target is released from the Oroville reservoir as long as its projected end-of-May storage is at or above 2 MAF. Only acquisitions of Lower Yuba River Accord Component 1 water are included. Percent exceedance of forecasted Mar-May 8RI base on Jan-Feb 8RI values and corresponding proposed Mar-May Delta outflow target: 10%(44,500 cfs); 20%(44,500 cfs); 30%(35,000 cfs); 40%(32,000 cfs); 50%(23,000 cfs); 60%(17,200 cfs); 70%(13,300); 80%(11,400 cfs); 90%(9,200 cfs).
- ²⁵ Scenario 6 OMR Operations. Jan: 0 (W), -3500 (AN), -4000 (BN), -5000 (D, C); Feb: 0 (W), -3500 (AN), -4000 (BN, D, C); Mar: 0 (W, AN), -3500 (AN, BN, D, C); Apr - Jun: Varies based on San Joaquin inflow relationship to OMR; Jul - Sep: No Restrictions; Oct - Nov: Varies based SJR pulse flow condition; Dec: -5000 when north Delta initial pulse flows are triggered or -2000 when delta smelt action 1 triggers; HORB opening is restricted.
- ²⁶ BDCP Scenario 6 represents a set of proposed operations, which include operating criteria for North Delta diversion bypass flows, South Delta channel flows, HORB operations, Fremont Weir/Yolo Bypass inundation, DCC Gate operations, Rio Vista minimum flows, Water Quality and Residence Time and Ag/M&I water quality requirements. The ECLO and ECHO studies adopt some Scenario 6 operating criteria for South Delta Operating Restrictions, primarily regarding OMR flows and HORB.

Key:

ACOE = Army Corps of Engineers
Ag = agricultural
BDCP = Bay-Delta Conservation Plan
BO = Biological Opinion
CALFED = CALFED Bay-Delta Program
CCWD = Contra Costa Water District
cfs = cubic feet per second
CVP = Central Valley Project
CVPIA = Central Valley Project Improvement Act
D-xxxx = Water Right Decision
DFG = California Department of Fish and Game
DMC = Delta-Mendota canal
DWR = California Department of Water Resources
EBMUD = East Bay Municipal Utility District
EIS = Environmental Impact Statement
FC&WSD = Flood Control and Water Service District
FERC = Federal Energy Regulatory Commission
FRSA = Feather River Service Area
FRWP = Freeport Regional Water Project
FWS = Fish and Wildlife Service
KCWA = Kern County Water Agency
LYRA = Lower Yuba River Accord
MAF/yr = million acre-feet per year
M&I = municipal and industrial
MWD = Metropolitan Water District
NAA = No Action Alternative
NEPA = National Environmental Policy Act
NMFS = National Marine Fisheries Service
NPS = National Park Service
PCWA = Placer County Water Agency
PP = Pumping Plant
Reclamation = United States Department of the Interior, Bureau of Reclamation
ROD = Record of Decision
SBA = South Bay Aqueduct
SWP = State Water Project
SWRCB = State Water Resources Control Board
TAF = thousand acre-feet
TAF/month = thousand acre-feet per month
TAF/yr = thousand acre-feet per year
USFWS = United States Fish and Wildlife Service
VAMP = Vernalis Adaptive Management Plan
WR = water right
yr = year

Simulation Results for 2015 DCR Alt 4

The deliveries shown in this report only include those State Water Contractors that rely on delivery of water from the Sacramento-San Joaquin Delta; therefore, State Water Contractors in the Feather River area and upstream (i.e., Butte County, Plumas County Flood Control and Water Conservation District, and Yuba City) are excluded from this analysis. This section of the appendix presents results for the 2015 DCR Alt 4 scenario.

SWP Table A Deliveries

Figure F.1 shows the comparison of SWP Table A delivery exceedance curves between the 2015 DCR ELT and 2015 DCR Alt 4 studies. The total annual Table A deliveries for State Water Contractors are shown in Table F.1 of the following page. The detailed results for individual contractors are presented at the end of this appendix.

Figure F.1. Comparison of SWP Table A delivery probability between 2015 DCR ELT and 2015 DCR Alt 4

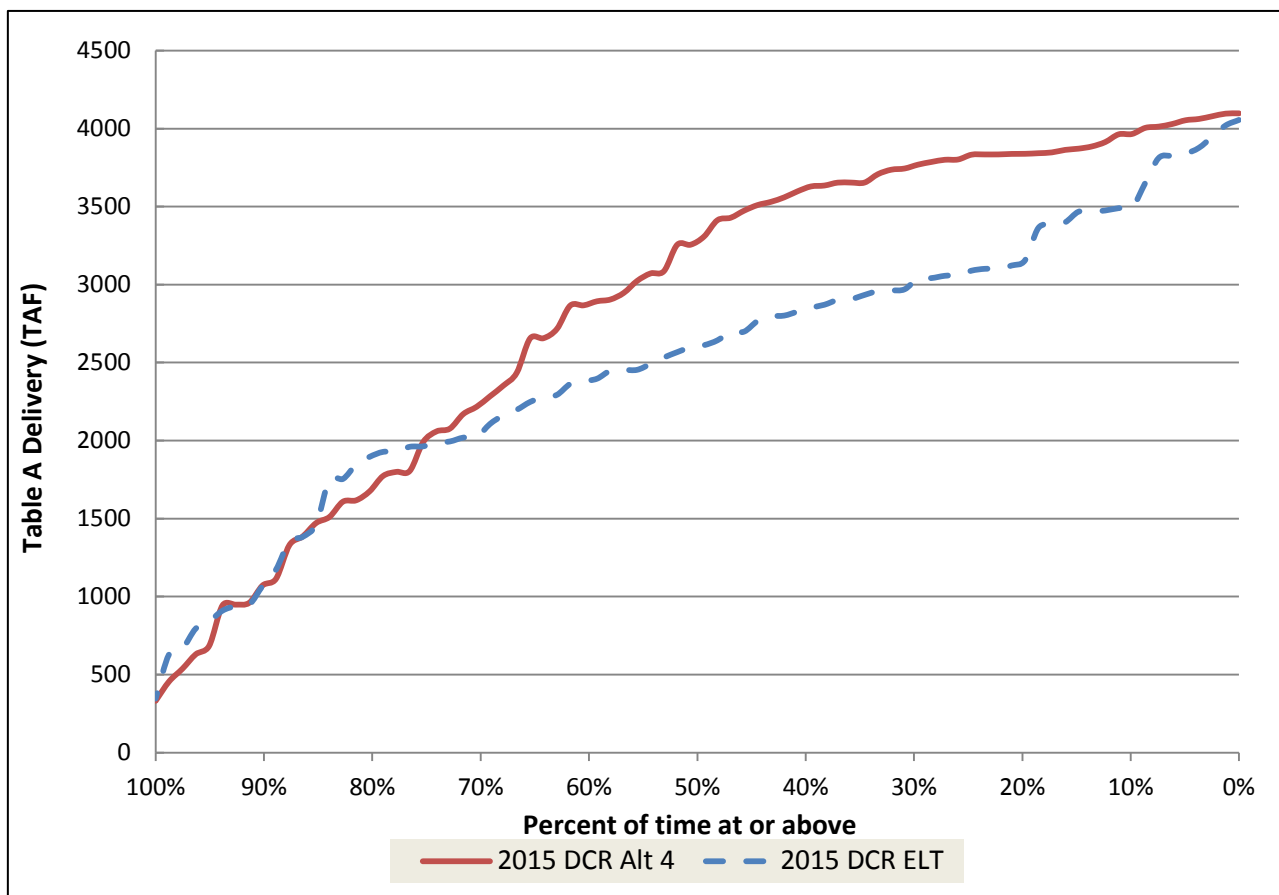


Table F.2. SWP Table A Deliveries for 2015 DCR Alt 4

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1922	4,133	3,802	92%	1942	4,098	0%	99%
1923	4,133	2,866	69%	1952	4,096	1%	99%
1924	4,133	332	8%	1941	4,079	2%	99%
1925	4,133	2,353	57%	1963	4,062	4%	98%
1926	4,133	2,059	50%	1974	4,054	5%	98%
1927	4,133	3,800	92%	1969	4,029	6%	97%
1928	4,133	3,256	79%	1938	4,013	7%	97%
1929	4,133	537	13%	1967	4,005	9%	97%
1930	4,133	2,435	59%	1983	3,966	10%	96%
1931	4,133	630	15%	1998	3,963	11%	96%
1932	4,133	2,077	50%	1970	3,914	12%	95%
1933	4,133	1,114	27%	1982	3,886	14%	94%
1934	4,133	1,386	34%	1951	3,872	15%	94%
1935	4,133	3,474	84%	1958	3,864	16%	93%
1936	4,133	3,744	91%	1984	3,847	17%	93%
1937	4,133	3,072	74%	1995	3,842	19%	93%
1938	4,133	4,013	97%	1973	3,838	20%	93%
1939	4,133	1,773	43%	1993	3,838	21%	93%
1940	4,133	3,531	85%	2003	3,835	22%	93%
1941	4,133	4,079	99%	1978	3,834	23%	93%
1942	4,133	4,098	99%	1946	3,833	25%	93%
1943	4,133	3,559	86%	1922	3,802	26%	92%
1944	4,133	2,170	53%	1927	3,800	27%	92%
1945	4,133	3,413	83%	1996	3,786	28%	92%
1946	4,133	3,833	93%	1968	3,769	30%	91%
1947	4,133	1,511	37%	1936	3,744	31%	91%
1948	4,133	2,905	70%	1971	3,737	32%	90%
1949	4,133	1,675	41%	1962	3,708	33%	90%
1950	4,133	2,656	64%	1965	3,654	35%	88%
1951	4,133	3,872	94%	1953	3,654	36%	88%
1952	4,133	4,096	99%	1956	3,654	37%	88%
1953	4,133	3,654	88%	1975	3,635	38%	88%
1954	4,133	3,429	83%	1980	3,629	40%	88%
1955	4,133	1,472	36%	1999	3,598	41%	87%
1956	4,133	3,654	88%	1943	3,559	42%	86%
1957	4,133	2,716	66%	1940	3,531	43%	85%
1958	4,133	3,864	93%	2000	3,510	44%	85%
1959	4,133	2,893	70%	1935	3,474	46%	84%
1960	4,133	2,217	54%	1954	3,429	47%	83%
1961	4,133	1,800	44%	1945	3,413	48%	83%
1962	4,133	3,708	90%	1986	3,308	49%	80%
1963	4,133	4,062	98%	1997	3,256	51%	79%
1964	4,133	1,618	39%	1928	3,256	52%	79%

Year	SWP Table A Demands	SWP Table A Delivery		Probability Curve (percent of time at or above given value)			
		Annual Volume (TAF)	Percent of Maximum SWP Table A	Year	SWP Table A Delivery (TAF)	Exceedance Frequency	Percent of Maximum SWP Table A
1965	4,133	3,654	88%	1979	3,086	53%	75%
1966	4,133	2,947	71%	1937	3,072	54%	74%
1967	4,133	4,005	97%	2002	3,024	56%	73%
1968	4,133	3,769	91%	1966	2,947	57%	71%
1969	4,133	4,029	97%	1948	2,905	58%	70%
1970	4,133	3,914	95%	1959	2,893	59%	70%
1971	4,133	3,737	90%	1989	2,867	60%	69%
1972	4,133	1,806	44%	1923	2,866	62%	69%
1973	4,133	3,838	93%	1957	2,716	63%	66%
1974	4,133	4,054	98%	1950	2,656	64%	64%
1975	4,133	3,635	88%	1981	2,656	65%	64%
1976	4,133	1,608	39%	1930	2,435	67%	59%
1977	4,133	456	11%	1925	2,353	68%	57%
1978	4,133	3,834	93%	1985	2,284	69%	55%
1979	4,133	3,086	75%	1960	2,217	70%	54%
1980	4,133	3,629	88%	1944	2,170	72%	53%
1981	4,133	2,656	64%	1932	2,077	73%	50%
1982	4,133	3,886	94%	1926	2,059	74%	50%
1983	4,133	3,966	96%	1994	1,991	75%	48%
1984	4,133	3,847	93%	1972	1,806	77%	44%
1985	4,133	2,284	55%	1961	1,800	78%	44%
1986	4,133	3,308	80%	1939	1,773	79%	43%
1987	4,133	944	23%	1949	1,675	80%	41%
1988	4,133	1,072	26%	1964	1,618	81%	39%
1989	4,133	2,867	69%	1976	1,608	83%	39%
1990	4,133	960	23%	1947	1,511	84%	37%
1991	4,133	684	17%	1955	1,472	85%	36%
1992	4,133	948	23%	1934	1,386	86%	34%
1993	4,133	3,838	93%	2001	1,330	88%	32%
1994	4,133	1,991	48%	1933	1,114	89%	27%
1995	4,133	3,842	93%	1988	1,072	90%	26%
1996	4,133	3,786	92%	1990	960	91%	23%
1997	4,133	3,256	79%	1992	948	93%	23%
1998	4,133	3,963	96%	1987	944	94%	23%
1999	4,133	3,598	87%	1991	684	95%	17%
2000	4,133	3,510	85%	1931	630	96%	15%
2001	4,133	1,330	32%	1929	537	98%	13%
2002	4,133	3,024	73%	1977	456	99%	11%
2003	4,133	3,835	93%	1924	332	100%	8%
Average	4,133	2,861	69%	Average	2,861		69%
Minimum	4,133	332	8%	Minimum	332		8%
Maximum	4,133	4,098	99%	Maximum	4,098		99%

Article 21 Deliveries

Table F.3 below shows the State Water Contractors' Article 21 deliveries for the 2015 DCR Alt 4 scenario.

Table F.3. Article 21 Deliveries for 2015 DCR Alt 4

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										0	0	2	2
1922	2	2	2	2	0	0	0	0	0	0	0	2	10
1923	2	0	2	2	1	0	0	0	0	0	0	0	7
1924	2	2	0	0	0	0	0	0	0	2	0	2	8
1925	2	2	60	49	2	0	0	0	0	0	0	0	115
1926	2	2	0	2	0	0	0	0	0	0	2	2	10
1927	2	2	57	109	0	0	0	0	0	0	0	2	172
1928	2	2	266	134	0	0	0	0	0	0	0	0	404
1929	2	2	2	2	0	0	0	0	0	0	0	2	10
1930	2	2	2	0	0	0	0	0	0	0	0	0	6
1931	2	2	0	0	0	0	0	0	0	0	0	2	6
1932	2	27	179	2	2	0	0	0	0	0	0	0	211
1933	2	2	2	0	0	0	0	0	0	0	0	2	8
1934	2	2	0	0	0	0	0	0	0	0	0	2	6
1935	2	2	2	133	2	0	0	0	0	0	0	0	141
1936	2	3	139	2	0	0	0	0	0	0	0	0	146
1937	2	3	152	118	2	0	0	0	0	0	2	2	281
1938	2	124	185	183	130	29	0	0	0	0	0	2	654
1939	2	2	2	0	1	1	2	0	0	0	0	0	11
1940	2	4	127	132	0	0	0	0	0	0	0	2	267
1941	2	2	9	2	0	0	0	0	0	0	0	2	18
1942	2	2	37	148	75	0	0	0	0	0	0	2	265
1943	4	2	132	131	0	0	0	0	0	0	0	2	272
1944	2	2	2	2	2	0	0	0	0	0	2	2	14
1945	2	3	199	2	1	0	0	0	0	0	0	2	208
1946	4	2	2	2	0	0	0	0	0	0	0	2	12
1947	2	2	2	0	2	0	0	0	0	0	0	0	8
1948	2	0	2	2	1	0	0	0	0	0	0	2	9
1949	2	2	2	2	0	0	0	0	0	0	0	0	8
1950	2	2	2	2	0	0	0	0	0	0	2	2	12
1951	92	212	196	2	0	0	0	0	0	0	0	2	504
1952	2	2	11	2	0	0	0	0	0	0	0	2	19
1953	2	2	2	2	0	0	0	0	0	0	0	2	10
1954	2	2	2	2	0	0	2	0	0	0	0	2	12
1955	2	2	2	2	2	0	0	0	0	0	0	2	12
1956	147	232	196	2	0	0	0	0	0	0	0	2	579
1957	2	2	2	2	0	0	0	0	0	1	1	2	12
1958	2	2	148	135	86	0	0	0	0	0	0	2	376
1959	2	2	2	0	0	0	0	0	0	0	0	0	6
1960	2	2	2	0	0	0	0	0	0	0	2	2	10
1961	2	2	2	0	2	0	0	0	0	0	0	2	10
1962	0	2	2	2	0	0	0	0	0	1	1	2	10
1963	2	2	2	2	0	0	0	0	0	0	0	2	10

SWP Table Article 21 Deliveries (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1964	2	2	2	0	2	0	0	0	0	0	2	2	12
1965	36	221	159	161	0	0	0	0	0	0	0	2	578
1966	2	2	2	2	0	0	0	0	0	0	2	2	12
1967	2	2	2	125	121	77	2	0	0	0	0	2	332
1968	2	2	151	0	0	0	0	0	0	0	0	2	157
1969	2	3	29	2	0	0	0	0	0	0	0	2	38
1970	144	180	171	0	0	0	2	0	0	0	0	2	497
1971	2	2	2	2	0	0	0	0	0	0	0	2	10
1972	2	2	2	2	0	0	0	0	0	0	2	2	12
1973	184	221	187	2	0	0	0	0	0	0	2	2	599
1974	2	7	139	67	0	0	0	0	0	0	0	2	217
1975	2	2	2	2	0	0	0	0	0	0	0	2	10
1976	2	2	2	2	2	2	2	0	0	0	0	0	14
1977	2	0	0	0	0	0	0	0	0	2	0	2	6
1978	2	78	63	2	0	0	0	0	0	0	0	0	146
1979	2	2	249	2	2	0	0	0	0	0	2	2	261
1980	2	22	61	2	0	0	0	0	0	0	0	2	89
1981	2	2	2	2	0	0	0	0	0	0	2	2	12
1982	2	172	196	158	106	0	0	0	0	0	2	10	646
1983	2	94	74	2	0	0	2	0	0	0	117	162	453
1984	166	228	196	2	0	0	0	0	0	0	2	2	596
1985	2	2	2	2	0	0	0	0	0	0	0	2	10
1986	2	2	17	2	0	0	0	0	0	0	0	0	23
1987	2	2	2	0	2	0	0	0	0	0	0	2	10
1988	2	0	2	2	0	0	0	0	0	0	0	2	8
1989	2	0	2	0	0	0	0	0	0	0	0	0	4
1990	2	2	2	0	2	0	0	0	0	0	0	0	8
1991	2	2	2	2	2	0	0	2	0	0	0	2	14
1992	2	2	2	0	0	0	0	0	0	2	0	2	10
1993	2	2	166	140	0	0	0	0	0	0	0	2	313
1994	2	2	2	2	2	0	0	2	0	0	0	2	14
1995	2	2	38	2	0	0	0	0	0	0	0	2	45
1996	2	2	136	69	0	0	0	2	0	0	0	2	213
1997	2	2	99	2	0	0	0	0	0	0	0	2	107
1998	2	2	2	0	0	0	0	0	0	0	93	112	211
1999	144	119	145	153	0	0	0	0	0	0	0	0	561
2000	2	2	2	2	0	0	0	0	0	0	0	0	8
2001	2	2	2	0	2	0	0	0	0	0	0	2	10
2002	2	38	139	2	2	0	0	1	0	0	0	2	186
2003	2	2	2	2	0	0	0	0	0				10
Average	13	26	56	27	7	1	0	0	0	0	3	5	138
Minimum	0	0	0	0	0	0	0	0	0	0	0	0	4
Maximum	184	232	266	183	130	77	2	2	0	2	117	162	654

SWP Exports from the Sacramento-San Joaquin Delta

Table F.4 below shows the SWP Exports from the Delta for the 2015 DCR Alt 4 scenario.

Table F.4. SWP Exports for 2015 DCR Alt 4

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1921										282	238	438	959
1922	149	128	263	295	384	487	469	552	179	183	143	509	3,740
1923	229	201	164	165	31	156	520	450	203	208	203	204	2,733
1924	151	107	18	18	18	18	18	18	23	84	222	206	903
1925	183	270	208	172	32	92	190	148	155	181	184	219	2,033
1926	182	266	46	161	74	286	208	132	148	128	288	168	2,087
1927	390	477	451	389	376	473	441	514	331	190	384	284	4,699
1928	227	281	367	390	247	225	218	195	213	129	151	326	2,969
1929	136	137	118	80	18	18	18	18	39	61	75	191	908
1930	133	124	475	56	49	292	216	198	188	150	163	137	2,180
1931	185	135	50	37	18	18	18	18	42	82	109	301	1,014
1932	400	429	207	42	78	18	109	171	147	138	167	216	2,123
1933	167	296	125	102	91	18	18	18	41	81	98	202	1,256
1934	334	301	64	54	18	18	18	63	78	86	308	137	1,480
1935	332	146	492	422	226	507	420	161	164	222	207	243	3,541
1936	380	592	586	274	52	432	474	146	173	329	212	249	3,899
1937	164	572	625	348	31	174	233	192	191	263	385	633	3,811
1938	528	552	390	410	471	455	476	484	367	195	64	415	4,808
1939	46	142	79	59	18	92	96	18	125	131	90	242	1,139
1940	222	592	607	414	160	354	419	165	108	227	167	545	3,980
1941	632	564	304	271	349	61	505	581	367	165	63	633	4,496
1942	499	395	301	410	444	445	485	446	137	179	84	284	4,109
1943	633	425	396	377	177	74	423	149	153	197	76	430	3,510
1944	84	281	134	108	57	182	504	77	154	139	482	254	2,455
1945	193	554	382	31	31	315	475	255	179	223	501	633	3,773
1946	633	273	217	59	31	397	407	497	154	138	163	405	3,374
1947	145	144	185	94	46	50	111	18	150	209	235	174	1,561
1948	111	50	138	142	338	423	452	206	206	358	217	354	2,995
1949	131	139	398	109	72	18	136	51	170	106	155	155	1,639
1950	116	297	269	212	141	346	238	197	198	315	413	633	3,375
1951	632	349	390	27	27	195	401	522	276	227	269	589	3,903
1952	633	361	512	226	341	423	476	483	397	182	72	376	4,481
1953	392	311	262	277	370	364	255	132	140	162	67	268	3,000
1954	121	365	388	462	416	326	214	165	186	235	303	312	3,494
1955	193	172	137	153	86	18	120	76	179	138	297	633	2,202
1956	604	360	390	232	336	126	480	175	145	182	34	413	3,476
1957	94	96	328	36	89	319	445	559	146	269	280	266	2,926
1958	538	385	394	413	473	328	507	484	190	219	67	374	4,371
1959	118	439	247	200	18	247	447	185	234	143	149	163	2,591
1960	152	250	266	111	103	297	273	55	160	124	331	195	2,317
1961	190	390	210	78	54	144	21	18	156	78	212	249	1,801
1962	166	423	373	70	276	293	477	409	167	376	482	418	3,929
1963	152	351	282	319	437	429	459	515	151	247	384	369	4,095
1964	116	141	132	18	31	50	221	18	127	135	412	633	2,035
1965	607	349	347	407	112	375	306	130	142	145	341	477	3,738

SWP Exports from the Delta (TAF)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1966	94	409	274	114	221	274	416	174	159	148	413	407	3,104
1967	362	363	409	419	471	511	482	490	402	196	94	368	4,567
1968	83	485	502	246	70	447	254	160	198	275	366	389	3,475
1969	631	512	227	233	338	420	436	490	402	201	44	633	4,566
1970	515	349	366	126	189	460	378	124	151	193	419	633	3,904
1971	362	226	307	215	380	368	445	307	144	171	29	392	3,346
1972	96	93	212	119	69	108	482	167	186	149	477	321	2,480
1973	572	348	391	81	39	487	483	228	137	383	499	633	4,281
1974	633	332	367	326	254	339	486	413	146	212	21	392	3,922
1975	93	227	453	302	433	304	479	293	150	334	18	367	3,453
1976	81	144	128	45	22	76	442	196	188	96	125	125	1,668
1977	152	93	44	18	18	18	18	18	93	18	118	185	795
1978	562	417	269	232	234	100	527	583	572	247	111	188	4,041
1979	168	419	494	111	88	224	229	194	190	354	449	339	3,258
1980	631	328	240	212	65	92	521	270	150	268	135	265	3,177
1981	191	335	233	153	51	373	459	49	153	149	293	601	3,041
1982	633	551	390	410	471	136	553	632	475	371	335	326	5,280
1983	205	178	195	197	245	301	327	477	383	354	427	452	3,740
1984	377	360	391	28	33	345	440	358	156	248	529	359	3,623
1985	52	145	146	129	46	99	478	39	199	154	296	263	2,045
1986	117	571	601	257	82	37	477	337	189	227	40	407	3,342
1987	46	189	195	49	18	18	18	18	102	49	84	224	1,011
1988	343	192	51	48	18	18	18	73	83	39	283	234	1,399
1989	226	86	207	289	370	368	357	84	202	222	137	103	2,651
1990	223	121	58	43	69	40	83	18	111	53	78	109	1,007
1991	70	75	143	105	43	18	18	59	41	85	102	129	889
1992	147	81	113	111	18	36	18	18	100	72	36	201	953
1993	598	551	391	412	352	333	449	543	469	259	94	340	4,791
1994	134	192	110	87	42	86	35	37	201	89	156	254	1,422
1995	601	359	475	269	382	462	482	490	402	208	46	309	4,484
1996	199	592	454	328	330	115	433	142	129	145	123	633	3,623
1997	386	572	608	199	93	47	326	155	157	174	138	325	3,180
1998	256	572	628	338	380	463	494	489	402	284	504	454	5,262
1999	376	347	390	390	35	445	201	197	88	180	18	449	3,116
2000	94	592	467	290	293	462	404	199	152	190	107	263	3,513
2001	144	280	290	125	18	18	18	46	172	33	284	416	1,846
2002	584	199	285	223	77	237	260	160	186	93	156	339	2,800
2003	548	483	318	384	434	368	406	557	503				4,960
Average	293	317	299	200	171	237	320	236	194	185	214	346	3,012
Minimum	46	50	18	18	18	18	18	18	23	18	18	103	795
Maximum	633	592	628	462	473	511	553	632	572	383	529	633	5,280

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Individual Contractor Table A Deliveries - 2015 DCR Alt 4

The tables on the following pages show the Table A deliveries for each State Water Contractor for the 2015 DCR Alt 4 scenario.

Table F.5. Alameda County FC&WCD-Zone 7: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	78	0	78	97%	1952	81	0%	100%
1923	52	2	54	67%	1952	81	1%	100%
1924	4	1	5	7%	1936	81	2%	100%
1925	45	0	45	55%	1936	81	4%	100%
1926	39	1	40	50%	1971	81	5%	100%
1927	78	1	79	98%	1953	81	6%	100%
1928	67	2	69	86%	1942	81	7%	100%
1929	7	2	9	11%	1975	81	9%	100%
1930	52	0	52	64%	1974	81	10%	100%
1931	10	1	12	15%	1946	80	11%	100%
1932	40	0	40	49%	1969	80	12%	100%
1933	22	1	23	29%	1998	80	14%	99%
1934	27	0	27	34%	1967	80	15%	99%
1935	79	0	79	98%	1938	80	16%	99%
1936	78	2	81	100%	1970	80	17%	99%
1937	60	2	62	77%	1958	80	19%	99%
1938	78	1	80	99%	1962	80	20%	99%
1939	33	2	35	44%	1982	80	21%	99%
1940	78	1	79	98%	1927	79	22%	98%
1941	78	2	81	100%	1983	79	23%	98%
1942	78	2	81	100%	1940	79	25%	98%
1943	71	2	74	91%	1951	79	26%	98%
1944	37	2	39	48%	1935	79	27%	98%
1945	69	1	70	87%	1996	79	28%	98%
1946	78	2	80	100%	1973	79	30%	98%
1947	29	2	31	39%	1995	79	31%	98%
1948	59	0	59	73%	2000	79	32%	98%
1949	29	2	30	38%	1993	78	33%	97%
1950	53	0	53	66%	1978	78	35%	97%
1951	78	1	79	98%	1922	78	36%	97%
1952	78	2	81	100%	1922	78	37%	97%
1953	78	2	81	100%	1980	78	38%	97%
1954	64	2	66	82%	1984	77	40%	95%
1955	25	2	26	33%	2003	76	41%	94%
1956	78	0	78	97%	1965	75	42%	93%
1957	48	2	51	63%	1968	74	43%	92%
1958	78	1	80	99%	1943	74	44%	91%
1959	59	2	62	76%	1986	73	46%	91%
1960	41	1	43	53%	1999	73	47%	91%
1961	41	1	42	52%	1945	70	48%	87%
1962	79	1	80	99%	1989	70	49%	87%
1963	78	2	81	100%	1928	69	51%	86%
1964	27	2	29	36%	1954	66	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	75	0	75	93%	2002	65	53%	81%
1966	56	2	58	72%	1997	65	54%	80%
1967	78	2	80	99%	1937	62	56%	77%
1968	72	2	74	92%	1959	62	57%	76%
1969	78	2	80	100%	1979	60	58%	74%
1970	78	1	80	99%	1948	59	59%	73%
1971	78	2	81	100%	1966	58	60%	72%
1972	30	2	33	40%	1923	54	62%	67%
1973	78	0	79	98%	1950	53	63%	66%
1974	78	2	81	100%	1930	52	64%	64%
1975	78	2	81	100%	1957	51	65%	63%
1976	28	2	30	37%	1981	50	67%	62%
1977	9	0	9	11%	1985	47	68%	59%
1978	78	0	78	97%	1925	45	69%	55%
1979	58	2	60	74%	1960	43	70%	53%
1980	76	2	78	97%	1961	42	72%	52%
1981	47	2	50	62%	1994	41	73%	51%
1982	78	1	80	99%	1926	40	74%	50%
1983	78	1	79	98%	1932	40	75%	49%
1984	76	1	77	95%	1944	39	77%	48%
1985	45	2	47	59%	1939	35	78%	44%
1986	72	1	73	91%	1972	33	79%	40%
1987	20	1	20	25%	1947	31	80%	39%
1988	21	0	21	26%	1949	30	81%	38%
1989	70	0	70	87%	1976	30	83%	37%
1990	17	2	19	24%	1964	29	84%	36%
1991	13	0	13	16%	1934	27	85%	34%
1992	19	0	19	23%	1955	26	86%	33%
1993	78	0	78	97%	2001	26	88%	32%
1994	39	2	41	51%	1933	23	89%	29%
1995	78	0	79	98%	1988	21	90%	26%
1996	77	2	79	98%	1987	20	91%	25%
1997	62	2	65	80%	1990	19	93%	24%
1998	78	2	80	99%	1992	19	94%	23%
1999	71	2	73	91%	1991	13	95%	16%
2000	77	2	79	98%	1931	12	96%	15%
2001	24	2	26	32%	1977	9	98%	11%
2002	65	0	65	81%	1929	9	99%	11%
2003	74	2	76	94%	1924	5	100%	7%
Average	57	1	58	72%		58		72%
Maximum	79	2	81	100%		81		100%
Minimum	4	0	5	7%		5		7%

Table F.6. Alameda County WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	42	0	42	100%	1998	42	0%	100%
1923	28	0	28	66%	1922	42	1%	100%
1924	2	0	2	5%	1922	42	2%	100%
1925	24	0	24	57%	1922	42	4%	100%
1926	21	0	21	50%	1922	42	5%	100%
1927	42	0	42	100%	1922	42	6%	100%
1928	36	0	36	85%	1922	42	7%	100%
1929	4	0	4	8%	1922	42	9%	100%
1930	28	0	28	66%	1922	42	10%	100%
1931	5	0	5	13%	1935	42	11%	100%
1932	21	0	21	51%	1935	42	12%	100%
1933	11	0	11	27%	1935	42	14%	100%
1934	14	0	14	34%	1935	42	15%	100%
1935	42	0	42	100%	1935	42	16%	100%
1936	42	0	42	100%	1935	42	17%	100%
1937	32	0	32	76%	1935	42	19%	100%
1938	42	0	42	100%	1935	42	20%	100%
1939	18	0	18	42%	1942	42	21%	100%
1940	42	0	42	100%	1942	42	22%	100%
1941	42	0	42	100%	1942	42	23%	100%
1942	42	0	42	100%	1942	42	25%	100%
1943	38	0	38	91%	1942	42	26%	100%
1944	20	0	20	47%	1942	42	27%	100%
1945	37	0	37	88%	1942	42	28%	100%
1946	42	0	42	100%	1942	42	30%	100%
1947	15	0	15	36%	1942	42	31%	100%
1948	31	0	31	75%	1942	42	32%	100%
1949	15	0	15	36%	1942	42	33%	100%
1950	28	0	28	68%	1942	42	35%	100%
1951	42	0	42	100%	1996	41	36%	98%
1952	42	0	42	100%	2000	41	37%	98%
1953	42	0	42	100%	1980	41	38%	97%
1954	34	0	34	82%	1984	41	40%	97%
1955	13	0	13	31%	1965	40	41%	95%
1956	42	0	42	100%	2003	39	42%	92%
1957	26	0	26	62%	1986	39	43%	92%
1958	42	0	42	100%	1968	38	44%	91%
1959	32	0	32	76%	1943	38	46%	91%
1960	22	0	22	53%	1999	38	47%	90%
1961	22	0	22	52%	1989	37	48%	89%
1962	42	0	42	100%	1945	37	49%	88%
1963	42	0	42	100%	1928	36	51%	85%
1964	14	0	14	34%	2002	35	52%	83%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	40	0	40	95%	1954	34	53%	82%
1966	30	0	30	71%	1997	33	54%	80%
1967	42	0	42	100%	1937	32	56%	76%
1968	38	0	38	91%	1959	32	57%	76%
1969	42	0	42	100%	1948	31	58%	75%
1970	42	0	42	100%	1979	31	59%	74%
1971	42	0	42	100%	1966	30	60%	71%
1972	16	0	16	38%	1950	28	62%	68%
1973	42	0	42	100%	1923	28	63%	66%
1974	42	0	42	100%	1930	28	64%	66%
1975	42	0	42	100%	1957	26	65%	62%
1976	15	0	15	35%	1981	25	67%	61%
1977	4	0	4	11%	1985	24	68%	57%
1978	42	0	42	100%	1925	24	69%	57%
1979	31	0	31	74%	1960	22	70%	53%
1980	41	0	41	97%	1961	22	72%	52%
1981	25	0	25	61%	1932	21	73%	51%
1982	42	0	42	100%	1926	21	74%	50%
1983	42	0	42	100%	1994	21	75%	50%
1984	41	0	41	97%	1944	20	77%	47%
1985	24	0	24	57%	1939	18	78%	42%
1986	39	0	39	92%	1972	16	79%	38%
1987	10	0	10	24%	1947	15	80%	36%
1988	11	0	11	26%	1949	15	81%	36%
1989	37	0	37	89%	1976	15	83%	35%
1990	9	0	9	22%	1934	14	84%	34%
1991	7	0	7	16%	1964	14	85%	34%
1992	10	0	10	23%	1955	13	86%	31%
1993	42	0	42	100%	2001	12	88%	30%
1994	21	0	21	50%	1933	11	89%	27%
1995	42	0	42	100%	1988	11	90%	26%
1996	41	0	41	98%	1987	10	91%	24%
1997	33	0	33	80%	1992	10	93%	23%
1998	42	0	42	100%	1990	9	94%	22%
1999	38	0	38	90%	1991	7	95%	16%
2000	41	0	41	98%	1931	5	96%	13%
2001	12	0	12	30%	1977	4	98%	11%
2002	35	0	35	83%	1929	4	99%	8%
2003	39	0	39	92%	1924	2	100%	5%
Average	30	0	30	73%		30		73%
Maximum	42	0	42	100%		42		100%
Minimum	2	0	2	5%		2		5%

Table F.7. Antelope Valley-East Kern WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	141	0	141	100%	1927	141	0%	100%
1923	93	0	93	66%	1927	141	1%	100%
1924	7	0	7	5%	1927	141	2%	100%
1925	81	0	81	57%	1927	141	4%	100%
1926	70	0	70	50%	1927	141	5%	100%
1927	141	0	141	100%	1927	141	6%	100%
1928	113	0	113	80%	1927	141	7%	100%
1929	12	0	12	8%	1927	141	9%	100%
1930	73	0	73	52%	1927	141	10%	100%
1931	18	0	18	13%	1922	141	11%	100%
1932	72	0	72	51%	1922	141	12%	100%
1933	38	0	38	27%	1922	141	14%	100%
1934	48	0	48	34%	1922	141	15%	100%
1935	100	0	100	71%	1922	141	16%	100%
1936	108	0	108	76%	1922	141	17%	100%
1937	108	0	108	76%	1922	141	19%	100%
1938	141	0	141	100%	1922	141	20%	100%
1939	50	0	50	35%	1922	141	21%	100%
1940	129	0	129	91%	1922	141	22%	100%
1941	141	0	141	100%	1922	141	23%	100%
1942	141	0	141	100%	1922	141	25%	100%
1943	121	0	121	85%	1973	141	26%	100%
1944	67	0	67	47%	1984	137	27%	97%
1945	125	0	125	88%	1965	135	28%	95%
1946	141	0	141	100%	1956	131	30%	93%
1947	46	0	46	32%	1971	131	31%	92%
1948	106	0	106	75%	2003	130	32%	92%
1949	51	0	51	36%	1968	129	33%	91%
1950	96	0	96	68%	1940	129	35%	91%
1951	141	0	141	100%	1996	126	36%	89%
1952	141	0	141	100%	1945	125	37%	88%
1953	110	0	110	77%	1999	122	38%	86%
1954	116	0	116	82%	1980	121	40%	86%
1955	43	0	43	31%	1943	121	41%	85%
1956	131	0	131	93%	1986	121	42%	85%
1957	87	0	87	62%	1954	116	43%	82%
1958	141	0	141	100%	1928	113	44%	80%
1959	82	0	82	58%	1997	112	46%	80%
1960	74	0	74	53%	1953	110	47%	77%
1961	54	0	54	38%	1937	108	48%	76%
1962	141	0	141	100%	1936	108	49%	76%
1963	141	0	141	100%	2000	106	51%	75%
1964	47	0	47	34%	1948	106	52%	75%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	135	0	135	95%	1979	104	53%	74%
1966	101	0	101	71%	1975	101	54%	72%
1967	141	0	141	100%	1966	101	56%	71%
1968	129	0	129	91%	1935	100	57%	71%
1969	141	0	141	100%	1989	96	58%	68%
1970	141	0	141	100%	1950	96	59%	68%
1971	131	0	131	92%	1923	93	60%	66%
1972	54	0	54	38%	1957	87	62%	62%
1973	141	0	141	100%	1981	86	63%	61%
1974	141	0	141	100%	1959	82	64%	58%
1975	101	0	101	72%	1985	81	65%	57%
1976	49	0	49	35%	1925	81	67%	57%
1977	15	0	15	11%	2002	80	68%	56%
1978	141	0	141	100%	1960	74	69%	53%
1979	104	0	104	74%	1930	73	70%	52%
1980	121	0	121	86%	1932	72	72%	51%
1981	86	0	86	61%	1926	70	73%	50%
1982	141	0	141	100%	1944	67	74%	47%
1983	141	0	141	100%	1994	66	75%	47%
1984	137	0	137	97%	1972	54	77%	38%
1985	81	0	81	57%	1961	54	78%	38%
1986	121	0	121	85%	1949	51	79%	36%
1987	34	0	34	24%	1939	50	80%	35%
1988	37	0	37	26%	1976	49	81%	35%
1989	96	0	96	68%	1934	48	83%	34%
1990	14	0	14	10%	1964	47	84%	34%
1991	23	0	23	16%	1947	46	85%	32%
1992	33	0	33	23%	1955	43	86%	31%
1993	141	0	141	100%	2001	42	88%	30%
1994	66	0	66	47%	1933	38	89%	27%
1995	141	0	141	100%	1988	37	90%	26%
1996	126	0	126	89%	1987	34	91%	24%
1997	112	0	112	80%	1992	33	93%	23%
1998	141	0	141	100%	1991	23	94%	16%
1999	122	0	122	86%	1931	18	95%	13%
2000	106	0	106	75%	1977	15	96%	11%
2001	42	0	42	30%	1990	14	98%	10%
2002	80	0	80	56%	1929	12	99%	8%
2003	130	0	130	92%	1924	7	100%	5%
Average	97	0	97	69%		97		69%
Maximum	141	0	141	100%		141		100%
Minimum	7	0	7	5%		7		5%

Table F.8. Castaic Lake WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	95	0	95	100%	1940	95	0%	100%
1923	63	0	63	66%	1938	95	1%	100%
1924	5	0	5	5%	1938	95	2%	100%
1925	54	0	54	57%	1938	95	4%	100%
1926	47	0	47	50%	1938	95	5%	100%
1927	95	0	95	100%	1938	95	6%	100%
1928	81	0	81	85%	1938	95	7%	100%
1929	8	0	8	8%	1938	95	9%	100%
1930	61	0	61	64%	1938	95	10%	100%
1931	12	0	12	13%	1938	95	11%	100%
1932	48	0	48	51%	1938	95	12%	100%
1933	26	0	26	27%	1938	95	14%	100%
1934	32	0	32	34%	1938	95	15%	100%
1935	95	0	95	100%	1938	95	16%	100%
1936	95	0	95	100%	1922	95	17%	100%
1937	73	0	73	76%	1922	95	19%	100%
1938	95	0	95	100%	1922	95	20%	100%
1939	39	0	39	41%	1922	95	21%	100%
1940	95	0	95	100%	1922	95	22%	100%
1941	95	0	95	100%	1922	95	23%	100%
1942	95	0	95	100%	1922	95	25%	100%
1943	87	0	87	91%	1962	95	26%	100%
1944	45	0	45	47%	1962	95	27%	100%
1945	84	0	84	88%	1962	95	28%	100%
1946	95	0	95	100%	1935	95	30%	100%
1947	33	0	33	35%	1935	95	31%	100%
1948	71	0	71	75%	1935	95	32%	100%
1949	34	0	34	36%	1935	95	33%	100%
1950	64	0	64	68%	1995	95	35%	100%
1951	95	0	95	100%	1996	93	36%	98%
1952	95	0	95	100%	2000	93	37%	98%
1953	95	0	95	100%	2003	93	38%	98%
1954	78	0	78	82%	1984	92	40%	97%
1955	29	0	29	31%	1980	92	41%	96%
1956	95	0	95	100%	1965	91	42%	95%
1957	59	0	59	62%	1986	88	43%	92%
1958	95	0	95	100%	1968	87	44%	91%
1959	70	0	70	73%	1943	87	46%	91%
1960	50	0	50	53%	1999	86	47%	90%
1961	47	0	47	49%	1945	84	48%	88%
1962	95	0	95	100%	1989	82	49%	86%
1963	95	0	95	100%	1928	81	51%	85%
1964	32	0	32	34%	2002	79	52%	83%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	91	0	91	95%	1954	78	53%	82%
1966	68	0	68	71%	1997	76	54%	80%
1967	95	0	95	100%	1937	73	56%	76%
1968	87	0	87	91%	1948	71	57%	75%
1969	95	0	95	100%	1979	70	58%	74%
1970	95	0	95	100%	1959	70	59%	73%
1971	95	0	95	100%	1966	68	60%	71%
1972	36	0	36	38%	1950	64	62%	68%
1973	95	0	95	100%	1923	63	63%	66%
1974	95	0	95	100%	1930	61	64%	64%
1975	95	0	95	100%	1957	59	65%	62%
1976	33	0	33	35%	1981	58	67%	61%
1977	10	0	10	11%	1985	55	68%	57%
1978	95	0	95	100%	1925	54	69%	57%
1979	70	0	70	74%	1960	50	70%	53%
1980	92	0	92	96%	1932	48	72%	51%
1981	58	0	58	61%	1926	47	73%	50%
1982	95	0	95	100%	1961	47	74%	49%
1983	95	0	95	100%	1994	46	75%	48%
1984	92	0	92	97%	1944	45	77%	47%
1985	55	0	55	57%	1939	39	78%	41%
1986	88	0	88	92%	1972	36	79%	38%
1987	23	0	23	24%	1949	34	80%	36%
1988	25	0	25	26%	1947	33	81%	35%
1989	82	0	82	86%	1976	33	83%	35%
1990	19	0	19	20%	1934	32	84%	34%
1991	16	0	16	16%	1964	32	85%	34%
1992	22	0	22	23%	1955	29	86%	31%
1993	95	0	95	100%	2001	28	88%	30%
1994	46	0	46	48%	1933	26	89%	27%
1995	95	0	95	100%	1988	25	90%	26%
1996	93	0	93	98%	1987	23	91%	24%
1997	76	0	76	80%	1992	22	93%	23%
1998	95	0	95	100%	1990	19	94%	20%
1999	86	0	86	90%	1991	16	95%	16%
2000	93	0	93	98%	1931	12	96%	13%
2001	28	0	28	30%	1977	10	98%	11%
2002	79	0	79	83%	1929	8	99%	8%
2003	93	0	93	98%	1924	5	100%	5%
Average	69	0	69	72%		69		72%
Maximum	95	0	95	100%		95		100%
Minimum	5	0	5	5%		5		5%

Table F.9. Coachella Valley WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	128	0	128	93%	1941	138	0%	100%
1923	87	10	97	70%	1941	138	1%	100%
1924	7	5	11	8%	1942	138	2%	100%
1925	79	0	79	57%	1952	138	4%	100%
1926	69	0	69	50%	1969	137	5%	99%
1927	129	0	129	93%	1946	137	6%	99%
1928	110	10	120	86%	1936	137	7%	99%
1929	12	8	20	15%	1998	136	9%	98%
1930	87	0	87	63%	1967	135	10%	98%
1931	18	4	22	16%	1938	135	11%	98%
1932	70	0	70	51%	2000	135	12%	97%
1933	37	0	37	27%	1980	131	14%	95%
1934	47	0	47	34%	1951	131	15%	95%
1935	130	0	130	94%	1958	131	16%	94%
1936	129	8	137	99%	1935	130	17%	94%
1937	98	7	105	76%	1970	129	19%	93%
1938	128	6	135	98%	1974	129	20%	93%
1939	58	10	68	49%	1982	129	21%	93%
1940	129	0	129	93%	2003	129	22%	93%
1941	128	10	138	100%	1962	129	23%	93%
1942	128	10	138	100%	1927	129	25%	93%
1943	88	10	98	71%	1927	129	26%	93%
1944	65	9	74	54%	1927	129	27%	93%
1945	114	0	114	82%	1927	129	28%	93%
1946	129	9	137	99%	1993	129	30%	93%
1947	50	6	56	40%	1922	128	31%	93%
1948	96	0	96	69%	1922	128	32%	93%
1949	50	7	57	41%	1995	128	33%	93%
1950	88	0	88	64%	1968	127	35%	92%
1951	129	2	131	95%	1984	124	36%	90%
1952	128	10	138	100%	1965	123	37%	89%
1953	97	10	107	78%	1928	120	38%	86%
1954	105	10	115	83%	1954	115	40%	83%
1955	42	8	50	36%	1989	115	41%	83%
1956	98	0	98	71%	1945	114	42%	82%
1957	83	10	93	68%	1997	112	43%	81%
1958	128	2	131	94%	1953	107	44%	78%
1959	97	10	107	78%	1959	107	46%	78%
1960	73	2	75	54%	1971	107	47%	78%
1961	72	0	72	52%	2002	106	48%	77%
1962	129	0	129	93%	1937	105	49%	76%
1963	128	10	138	100%	1996	105	51%	76%
1964	46	10	56	41%	1979	104	52%	76%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	123	0	123	89%	1975	103	53%	74%
1966	91	9	101	73%	1966	101	54%	73%
1967	128	7	135	98%	1999	99	56%	71%
1968	117	10	127	92%	1943	98	57%	71%
1969	128	9	137	99%	1956	98	58%	71%
1970	128	1	129	93%	1923	97	59%	70%
1971	97	10	107	78%	1948	96	60%	69%
1972	53	10	63	45%	1957	93	62%	68%
1973	129	0	129	93%	1981	93	63%	67%
1974	128	1	129	93%	1985	89	64%	64%
1975	93	10	103	74%	1950	88	65%	64%
1976	48	9	58	42%	1986	87	67%	63%
1977	15	0	15	11%	1930	87	68%	63%
1978	129	0	129	93%	1925	79	69%	57%
1979	95	10	104	76%	1994	79	70%	57%
1980	125	6	131	95%	1960	75	72%	54%
1981	83	10	93	67%	1944	74	73%	54%
1982	128	1	129	93%	1961	72	74%	52%
1983	128	0	128	93%	1932	70	75%	51%
1984	124	0	124	90%	1926	69	77%	50%
1985	79	10	89	64%	1939	68	78%	49%
1986	87	0	87	63%	1972	63	79%	45%
1987	34	1	35	25%	1976	58	80%	42%
1988	36	0	36	26%	1949	57	81%	41%
1989	115	0	115	83%	1964	56	83%	41%
1990	30	9	39	28%	1947	56	84%	40%
1991	23	0	23	16%	1955	50	85%	36%
1992	32	0	32	23%	1934	47	86%	34%
1993	129	0	129	93%	2001	46	88%	33%
1994	69	10	79	57%	1990	39	89%	28%
1995	128	0	128	93%	1933	37	90%	27%
1996	95	10	105	76%	1988	36	91%	26%
1997	102	10	112	81%	1987	35	93%	25%
1998	128	7	136	98%	1992	32	94%	23%
1999	89	10	99	71%	1991	23	95%	16%
2000	126	9	135	97%	1931	22	96%	16%
2001	41	5	46	33%	1929	20	98%	15%
2002	106	0	106	77%	1977	15	99%	11%
2003	121	8	129	93%	1924	11	100%	8%
Average	92	5	96	70%		96		70%
Maximum	130	10	138	100%		138		100%
Minimum	7	0	11	8%		11		8%

Table F.10. County of Kings: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	9	0	9	100%	2003	9	0%	100%
1923	6	0	6	66%	1958	9	1%	100%
1924	0	0	0	5%	1922	9	2%	100%
1925	5	0	5	57%	1922	9	4%	100%
1926	5	0	5	50%	1922	9	5%	100%
1927	9	0	9	100%	1922	9	6%	100%
1928	8	0	8	85%	1922	9	7%	100%
1929	1	0	1	8%	1922	9	9%	100%
1930	5	0	5	49%	1922	9	10%	100%
1931	1	0	1	13%	1922	9	11%	100%
1932	5	0	5	51%	1922	9	12%	100%
1933	3	0	3	27%	1922	9	14%	100%
1934	3	0	3	34%	1922	9	15%	100%
1935	9	0	9	100%	1922	9	16%	100%
1936	9	0	9	100%	1922	9	17%	100%
1937	7	0	7	76%	1922	9	19%	100%
1938	9	0	9	100%	1922	9	20%	100%
1939	2	0	2	26%	1922	9	21%	100%
1940	9	0	9	100%	1922	9	22%	100%
1941	9	0	9	100%	1922	9	23%	100%
1942	9	0	9	100%	1922	9	25%	100%
1943	8	0	8	91%	1922	9	26%	100%
1944	4	0	4	47%	1922	9	27%	100%
1945	8	0	8	88%	1922	9	28%	100%
1946	9	0	9	100%	1922	9	30%	100%
1947	2	0	2	25%	1922	9	31%	100%
1948	7	0	7	75%	1922	9	32%	100%
1949	3	0	3	36%	1922	9	33%	100%
1950	6	0	6	68%	1922	9	35%	100%
1951	9	0	9	100%	1922	9	36%	100%
1952	9	0	9	100%	1996	9	37%	98%
1953	9	0	9	100%	2000	9	38%	98%
1954	8	0	8	82%	1984	9	40%	97%
1955	3	0	3	31%	1965	9	41%	95%
1956	9	0	9	100%	1986	9	42%	92%
1957	6	0	6	62%	1968	9	43%	91%
1958	9	0	9	100%	1943	8	44%	91%
1959	4	0	4	47%	1999	8	46%	90%
1960	5	0	5	53%	1945	8	47%	88%
1961	2	0	2	26%	1928	8	48%	85%
1962	9	0	9	100%	1980	8	49%	85%
1963	9	0	9	100%	2002	8	51%	83%
1964	3	0	3	34%	1954	8	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	9	0	9	95%	1997	7	53%	80%
1966	7	0	7	71%	1937	7	54%	76%
1967	9	0	9	100%	1948	7	56%	75%
1968	9	0	9	91%	1979	7	57%	74%
1969	9	0	9	100%	1966	7	58%	71%
1970	9	0	9	100%	1950	6	59%	68%
1971	9	0	9	100%	1923	6	60%	66%
1972	4	0	4	38%	1957	6	62%	62%
1973	9	0	9	100%	1981	6	63%	61%
1974	9	0	9	100%	1985	5	64%	57%
1975	9	0	9	100%	1925	5	65%	57%
1976	3	0	3	35%	1989	5	67%	56%
1977	1	0	1	11%	1960	5	68%	53%
1978	9	0	9	100%	1932	5	69%	51%
1979	7	0	7	74%	1926	5	70%	50%
1980	8	0	8	85%	1930	5	72%	49%
1981	6	0	6	61%	1959	4	73%	47%
1982	9	0	9	100%	1944	4	74%	47%
1983	9	0	9	100%	1972	4	75%	38%
1984	9	0	9	97%	1949	3	77%	36%
1985	5	0	5	57%	1976	3	78%	35%
1986	9	0	9	92%	1934	3	79%	34%
1987	2	0	2	24%	1964	3	80%	34%
1988	2	0	2	26%	1994	3	81%	31%
1989	5	0	5	56%	1955	3	83%	31%
1990	1	0	1	8%	2001	3	84%	30%
1991	2	0	2	16%	1933	3	85%	27%
1992	2	0	2	23%	1939	2	86%	26%
1993	9	0	9	100%	1988	2	88%	26%
1994	3	0	3	31%	1961	2	89%	26%
1995	9	0	9	100%	1947	2	90%	25%
1996	9	0	9	98%	1987	2	91%	24%
1997	7	0	7	80%	1992	2	93%	23%
1998	9	0	9	100%	1991	2	94%	16%
1999	8	0	8	90%	1931	1	95%	13%
2000	9	0	9	98%	1977	1	96%	11%
2001	3	0	3	30%	1929	1	98%	8%
2002	8	0	8	83%	1990	1	99%	8%
2003	9	0	9	100%	1924	0	100%	5%
Average	7	0	7	71%		7		71%
Maximum	9	0	9	100%		9		100%
Minimum	0	0	0	5%		0		5%

Table F.11. Crestline-Lake Arrowhead WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	6	0	6	100%	1952	6	0%	100%
1923	4	0	4	66%	1935	6	1%	100%
1924	0	0	0	5%	1935	6	2%	100%
1925	3	0	3	57%	1935	6	4%	100%
1926	3	0	3	50%	1935	6	5%	100%
1927	6	0	6	100%	1935	6	6%	100%
1928	5	0	5	85%	1935	6	7%	100%
1929	0	0	0	8%	1938	6	9%	100%
1930	4	0	4	66%	1938	6	10%	100%
1931	1	0	1	13%	1938	6	11%	100%
1932	3	0	3	51%	1938	6	12%	100%
1933	2	0	2	27%	1938	6	14%	100%
1934	2	0	2	34%	1938	6	15%	100%
1935	6	0	6	100%	1938	6	16%	100%
1936	6	0	6	100%	1938	6	17%	100%
1937	4	0	4	76%	1938	6	19%	100%
1938	6	0	6	100%	1938	6	20%	100%
1939	2	0	2	42%	1938	6	21%	100%
1940	6	0	6	100%	1922	6	22%	100%
1941	6	0	6	100%	1922	6	23%	100%
1942	6	0	6	100%	1922	6	25%	100%
1943	5	0	5	91%	1922	6	26%	100%
1944	3	0	3	47%	1922	6	27%	100%
1945	5	0	5	88%	1922	6	28%	100%
1946	6	0	6	100%	1922	6	30%	100%
1947	2	0	2	36%	1922	6	31%	100%
1948	4	0	4	75%	1922	6	32%	100%
1949	2	0	2	36%	1922	6	33%	100%
1950	4	0	4	68%	1941	6	35%	100%
1951	6	0	6	100%	2000	6	36%	98%
1952	6	0	6	100%	2003	6	37%	98%
1953	6	0	6	100%	1980	6	38%	97%
1954	5	0	5	82%	1984	6	40%	97%
1955	2	0	2	31%	1965	6	41%	95%
1956	6	0	6	100%	1986	5	42%	92%
1957	4	0	4	62%	1968	5	43%	91%
1958	6	0	6	100%	1943	5	44%	91%
1959	4	0	4	76%	1999	5	46%	90%
1960	3	0	3	53%	1989	5	47%	89%
1961	3	0	3	52%	1945	5	48%	88%
1962	6	0	6	100%	1928	5	49%	85%
1963	6	0	6	100%	2002	5	51%	83%
1964	2	0	2	34%	1996	5	52%	83%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	6	0	6	95%	1954	5	53%	82%
1966	4	0	4	71%	1997	5	54%	80%
1967	6	0	6	100%	1937	4	56%	76%
1968	5	0	5	91%	1959	4	57%	76%
1969	6	0	6	100%	1948	4	58%	75%
1970	6	0	6	100%	1979	4	59%	74%
1971	6	0	6	100%	1966	4	60%	71%
1972	2	0	2	38%	1950	4	62%	68%
1973	6	0	6	100%	1923	4	63%	66%
1974	6	0	6	100%	1930	4	64%	66%
1975	6	0	6	100%	1957	4	65%	62%
1976	2	0	2	35%	1981	4	67%	61%
1977	1	0	1	11%	1985	3	68%	57%
1978	6	0	6	100%	1925	3	69%	57%
1979	4	0	4	74%	1960	3	70%	53%
1980	6	0	6	97%	1961	3	72%	52%
1981	4	0	4	61%	1932	3	73%	51%
1982	6	0	6	100%	1926	3	74%	50%
1983	6	0	6	100%	1994	3	75%	50%
1984	6	0	6	97%	1944	3	77%	47%
1985	3	0	3	57%	1939	2	78%	42%
1986	5	0	5	92%	1972	2	79%	38%
1987	1	0	1	24%	1947	2	80%	36%
1988	2	0	2	26%	1949	2	81%	36%
1989	5	0	5	89%	1976	2	83%	35%
1990	1	0	1	22%	1934	2	84%	34%
1991	1	0	1	16%	1964	2	85%	34%
1992	1	0	1	23%	1955	2	86%	31%
1993	6	0	6	100%	2001	2	88%	30%
1994	3	0	3	50%	1933	2	89%	27%
1995	6	0	6	100%	1988	2	90%	26%
1996	5	0	5	83%	1987	1	91%	24%
1997	5	0	5	80%	1992	1	93%	23%
1998	6	0	6	100%	1990	1	94%	22%
1999	5	0	5	90%	1991	1	95%	16%
2000	6	0	6	98%	1931	1	96%	13%
2001	2	0	2	30%	1977	1	98%	11%
2002	5	0	5	83%	1929	0	99%	8%
2003	6	0	6	98%	1924	0	100%	5%
Average	4	0	4	72%		4		72%
Maximum	6	0	6	100%		6		100%
Minimum	0	0	0	5%		0		5%

Table F.12. Desert WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	44	0	44	79%	1963	55	0%	98%
1923	31	10	41	74%	1952	54	1%	97%
1924	3	6	8	15%	1953	54	2%	96%
1925	32	0	32	57%	1942	53	4%	96%
1926	28	0	28	50%	1941	53	5%	96%
1927	44	0	44	79%	1946	51	6%	92%
1928	37	10	47	85%	1974	51	7%	92%
1929	5	4	9	16%	1967	50	9%	90%
1930	32	0	32	57%	1938	50	10%	90%
1931	7	5	12	22%	1968	50	11%	89%
1932	28	0	28	51%	1980	49	12%	87%
1933	15	0	15	27%	1969	49	14%	87%
1934	19	0	19	34%	1943	48	15%	87%
1935	44	0	44	79%	1954	48	16%	86%
1936	44	3	47	84%	2000	48	17%	85%
1937	34	3	36	65%	1928	47	19%	85%
1938	44	6	50	90%	1970	47	20%	85%
1939	24	10	33	60%	1936	47	21%	84%
1940	44	0	44	79%	1951	47	22%	84%
1941	44	10	53	96%	1998	47	23%	84%
1942	44	10	53	96%	1983	46	25%	83%
1943	40	9	48	87%	1958	46	26%	83%
1944	26	11	37	67%	1975	46	27%	83%
1945	39	0	39	70%	1959	45	28%	81%
1946	44	8	51	92%	1984	45	30%	81%
1947	20	2	23	40%	1996	45	31%	80%
1948	33	0	33	59%	1982	45	32%	80%
1949	20	9	29	52%	1971	44	33%	79%
1950	31	0	31	56%	1935	44	35%	79%
1951	44	3	47	84%	1962	44	36%	79%
1952	44	10	54	97%	1927	44	37%	79%
1953	44	10	54	96%	1927	44	38%	79%
1954	36	12	48	86%	1927	44	40%	79%
1955	17	10	27	48%	1927	44	41%	79%
1956	34	0	34	62%	1927	44	42%	79%
1957	32	5	37	66%	1922	44	43%	79%
1958	44	2	46	83%	1922	44	44%	79%
1959	33	12	45	81%	1999	43	46%	77%
1960	29	1	30	54%	1965	42	47%	75%
1961	29	0	29	52%	1979	42	48%	75%
1962	44	0	44	79%	1985	42	49%	74%
1963	44	11	55	98%	1923	41	51%	74%
1964	19	10	29	51%	1986	40	52%	72%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	42	0	42	75%	1994	40	53%	71%
1966	31	4	35	63%	1989	39	54%	70%
1967	44	6	50	90%	1945	39	56%	70%
1968	40	9	50	89%	1997	38	57%	68%
1969	44	5	49	87%	1981	37	58%	67%
1970	44	3	47	85%	1944	37	59%	67%
1971	34	10	44	79%	1957	37	60%	66%
1972	21	5	26	47%	2002	36	62%	65%
1973	44	0	44	79%	1937	36	63%	65%
1974	44	7	51	92%	1966	35	64%	63%
1975	34	12	46	83%	1956	34	65%	62%
1976	19	4	23	42%	1939	33	67%	60%
1977	6	0	6	11%	2003	33	68%	60%
1978	44	0	44	79%	1948	33	69%	59%
1979	32	10	42	75%	1925	32	70%	57%
1980	43	6	49	87%	1930	32	72%	57%
1981	33	5	37	67%	1950	31	73%	56%
1982	44	1	45	80%	1960	30	74%	54%
1983	44	3	46	83%	1949	29	75%	52%
1984	42	3	45	81%	1961	29	77%	52%
1985	32	9	42	74%	1964	29	78%	51%
1986	40	0	40	72%	1932	28	79%	51%
1987	14	1	14	25%	1926	28	80%	50%
1988	15	0	15	26%	1955	27	81%	48%
1989	39	0	39	70%	1972	26	83%	47%
1990	12	5	17	30%	1976	23	84%	42%
1991	9	0	9	16%	1947	23	85%	40%
1992	13	0	13	23%	1934	19	86%	34%
1993	44	0	44	79%	2001	19	88%	33%
1994	28	12	40	71%	1990	17	89%	30%
1995	44	0	44	79%	1933	15	90%	27%
1996	34	11	45	80%	1988	15	91%	26%
1997	35	3	38	68%	1987	14	93%	25%
1998	44	3	47	84%	1992	13	94%	23%
1999	31	12	43	77%	1931	12	95%	22%
2000	43	5	48	85%	1991	9	96%	16%
2001	17	2	19	33%	1929	9	98%	16%
2002	36	0	36	65%	1924	8	99%	15%
2003	30	4	33	60%	1977	6	100%	11%
Average	33	4	37	66%		37		66%
Maximum	44	12	55	98%		55		98%
Minimum	3	0	6	11%		6		11%

Table F.13. Dudley Ridge WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	50	0	50	100%	1941	50	0%	100%
1923	33	0	33	66%	1963	50	1%	100%
1924	2	0	2	5%	1958	50	2%	100%
1925	29	0	29	57%	1958	50	4%	100%
1926	25	0	25	50%	1958	50	5%	100%
1927	50	0	50	100%	1922	50	6%	100%
1928	43	0	43	85%	1922	50	7%	100%
1929	4	0	4	8%	1922	50	9%	100%
1930	30	0	30	59%	1922	50	10%	100%
1931	6	0	6	12%	1922	50	11%	100%
1932	26	0	26	51%	1922	50	12%	100%
1933	14	0	14	27%	1922	50	14%	100%
1934	17	0	17	34%	1922	50	15%	100%
1935	44	0	44	88%	1922	50	16%	100%
1936	50	0	50	100%	1946	50	17%	100%
1937	38	0	38	76%	1946	50	19%	100%
1938	50	0	50	100%	1946	50	20%	100%
1939	21	0	21	42%	1946	50	21%	100%
1940	50	0	50	100%	1946	50	22%	100%
1941	50	0	50	100%	1946	50	23%	100%
1942	50	0	50	100%	1946	50	25%	100%
1943	46	0	46	91%	1946	50	26%	100%
1944	24	0	24	47%	1946	50	27%	100%
1945	45	0	45	88%	1946	50	28%	100%
1946	50	0	50	100%	1946	50	30%	100%
1947	16	0	16	32%	1946	50	31%	100%
1948	38	0	38	75%	1952	50	32%	100%
1949	18	0	18	36%	1942	50	33%	100%
1950	34	0	34	68%	1996	49	35%	98%
1951	50	0	50	100%	2000	49	36%	98%
1952	50	0	50	100%	1984	49	37%	97%
1953	50	0	50	100%	1965	48	38%	95%
1954	41	0	41	82%	1986	46	40%	92%
1955	15	0	15	31%	1968	46	41%	91%
1956	50	0	50	100%	1943	46	42%	91%
1957	31	0	31	62%	1999	45	43%	90%
1958	50	0	50	100%	1945	45	44%	88%
1959	29	0	29	58%	1935	44	46%	88%
1960	27	0	27	53%	1928	43	47%	85%
1961	26	0	26	52%	1980	42	48%	83%
1962	50	0	50	100%	2002	42	49%	83%
1963	50	0	50	100%	1954	41	51%	82%
1964	16	0	16	32%	1997	40	52%	80%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	95%	1937	38	53%	76%
1966	36	0	36	71%	2003	38	54%	76%
1967	50	0	50	100%	1948	38	56%	75%
1968	46	0	46	91%	1979	37	57%	74%
1969	50	0	50	100%	1966	36	58%	71%
1970	50	0	50	100%	1989	34	59%	68%
1971	50	0	50	100%	1950	34	60%	68%
1972	19	0	19	38%	1923	33	62%	66%
1973	50	0	50	100%	1957	31	63%	62%
1974	50	0	50	100%	1981	30	64%	61%
1975	50	0	50	100%	1930	30	65%	59%
1976	18	0	18	35%	1959	29	67%	58%
1977	5	0	5	11%	1985	29	68%	57%
1978	50	0	50	100%	1925	29	69%	57%
1979	37	0	37	74%	1960	27	70%	53%
1980	42	0	42	83%	1961	26	72%	52%
1981	30	0	30	61%	1932	26	73%	51%
1982	50	0	50	100%	1926	25	74%	50%
1983	50	0	50	100%	1994	25	75%	50%
1984	49	0	49	97%	1944	24	77%	47%
1985	29	0	29	57%	1939	21	78%	42%
1986	46	0	46	92%	1972	19	79%	38%
1987	12	0	12	23%	1949	18	80%	36%
1988	13	0	13	26%	1976	18	81%	35%
1989	34	0	34	68%	1934	17	83%	34%
1990	10	0	10	21%	1947	16	84%	32%
1991	8	0	8	16%	1964	16	85%	32%
1992	12	0	12	23%	1955	15	86%	31%
1993	50	0	50	100%	2001	15	88%	30%
1994	25	0	25	50%	1933	14	89%	27%
1995	50	0	50	100%	1988	13	90%	26%
1996	49	0	49	98%	1987	12	91%	23%
1997	40	0	40	80%	1992	12	93%	23%
1998	50	0	50	100%	1990	10	94%	21%
1999	45	0	45	90%	1991	8	95%	16%
2000	49	0	49	98%	1931	6	96%	12%
2001	15	0	15	30%	1977	5	98%	11%
2002	42	0	42	83%	1929	4	99%	8%
2003	38	0	38	76%	1924	2	100%	5%
Average	36	0	36	71%		36		71%
Maximum	50	0	50	100%		50		100%
Minimum	2	0	2	5%		2		5%

Table F.14. Empire West Side ID: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	2	0	2	100%	1975	2	0%	100%
1923	1	0	1	66%	1922	2	1%	100%
1924	0	0	0	5%	1922	2	2%	100%
1925	1	0	1	57%	1922	2	4%	100%
1926	1	0	1	50%	1922	2	5%	100%
1927	2	0	2	100%	1922	2	6%	100%
1928	2	0	2	85%	1922	2	7%	100%
1929	0	0	0	8%	1922	2	9%	100%
1930	1	0	1	61%	1922	2	10%	100%
1931	0	0	0	9%	1922	2	11%	100%
1932	1	0	1	51%	1922	2	12%	100%
1933	1	0	1	27%	1922	2	14%	100%
1934	1	0	1	34%	1922	2	15%	100%
1935	2	0	2	100%	1922	2	16%	100%
1936	2	0	2	100%	1922	2	17%	100%
1937	2	0	2	76%	1922	2	19%	100%
1938	2	0	2	100%	1922	2	20%	100%
1939	1	0	1	42%	1922	2	21%	100%
1940	2	0	2	100%	1922	2	22%	100%
1941	2	0	2	100%	1922	2	23%	100%
1942	2	0	2	100%	1922	2	25%	100%
1943	2	0	2	91%	1922	2	26%	100%
1944	1	0	1	47%	1922	2	27%	100%
1945	2	0	2	88%	1922	2	28%	100%
1946	2	0	2	100%	1922	2	30%	100%
1947	1	0	1	36%	1922	2	31%	100%
1948	1	0	1	75%	1922	2	32%	100%
1949	1	0	1	36%	1922	2	33%	100%
1950	1	0	1	68%	1922	2	35%	100%
1951	2	0	2	100%	2003	2	36%	100%
1952	2	0	2	100%	1996	2	37%	98%
1953	2	0	2	100%	2000	2	38%	98%
1954	2	0	2	82%	1980	2	40%	97%
1955	1	0	1	31%	1984	2	41%	97%
1956	2	0	2	100%	1965	2	42%	95%
1957	1	0	1	62%	1986	2	43%	92%
1958	2	0	2	100%	1968	2	44%	91%
1959	1	0	1	71%	1943	2	46%	91%
1960	1	0	1	53%	1999	2	47%	90%
1961	1	0	1	52%	1945	2	48%	88%
1962	2	0	2	100%	1928	2	49%	85%
1963	2	0	2	100%	1989	2	51%	83%
1964	1	0	1	34%	2002	2	52%	83%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	95%	1954	2	53%	82%
1966	1	0	1	71%	1997	2	54%	80%
1967	2	0	2	100%	1937	2	56%	76%
1968	2	0	2	91%	1948	1	57%	75%
1969	2	0	2	100%	1979	1	58%	74%
1970	2	0	2	100%	1966	1	59%	71%
1971	2	0	2	100%	1959	1	60%	71%
1972	1	0	1	38%	1950	1	62%	68%
1973	2	0	2	100%	1923	1	63%	66%
1974	2	0	2	100%	1957	1	64%	62%
1975	2	0	2	100%	1930	1	65%	61%
1976	1	0	1	35%	1981	1	67%	61%
1977	0	0	0	11%	1985	1	68%	57%
1978	2	0	2	100%	1925	1	69%	57%
1979	1	0	1	74%	1960	1	70%	53%
1980	2	0	2	97%	1961	1	72%	52%
1981	1	0	1	61%	1932	1	73%	51%
1982	2	0	2	100%	1926	1	74%	50%
1983	2	0	2	100%	1994	1	75%	50%
1984	2	0	2	97%	1944	1	77%	47%
1985	1	0	1	57%	1939	1	78%	42%
1986	2	0	2	92%	1972	1	79%	38%
1987	0	0	0	16%	1947	1	80%	36%
1988	0	0	0	22%	1949	1	81%	36%
1989	2	0	2	83%	1976	1	83%	35%
1990	0	0	0	14%	1934	1	84%	34%
1991	0	0	0	14%	1964	1	85%	34%
1992	0	0	0	19%	1955	1	86%	31%
1993	2	0	2	100%	2001	1	88%	30%
1994	1	0	1	50%	1933	1	89%	27%
1995	2	0	2	100%	1988	0	90%	22%
1996	2	0	2	98%	1992	0	91%	19%
1997	2	0	2	80%	1987	0	93%	16%
1998	2	0	2	100%	1990	0	94%	14%
1999	2	0	2	90%	1991	0	95%	14%
2000	2	0	2	98%	1977	0	96%	11%
2001	1	0	1	30%	1931	0	98%	9%
2002	2	0	2	83%	1929	0	99%	8%
2003	2	0	2	100%	1924	0	100%	5%
Average	1	0	1	72%		1		72%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	5%		0		5%

Table F.15. Kern County WA-AG: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	848	0	848	100%	1970	848	0%	100%
1923	560	0	560	66%	1970	848	1%	100%
1924	41	0	41	5%	1970	848	2%	100%
1925	483	0	483	57%	1927	848	4%	100%
1926	422	0	422	50%	1927	848	5%	100%
1927	848	0	848	100%	1927	848	6%	100%
1928	682	0	682	80%	1927	848	7%	100%
1929	72	0	72	8%	1927	848	9%	100%
1930	475	0	475	56%	1927	848	10%	100%
1931	103	0	103	12%	1927	848	11%	100%
1932	430	0	430	51%	1927	848	12%	100%
1933	223	0	223	26%	1927	848	14%	100%
1934	278	0	278	33%	1922	848	15%	100%
1935	807	0	807	95%	1922	848	16%	100%
1936	808	0	808	95%	1922	848	17%	100%
1937	648	0	648	76%	1922	848	19%	100%
1938	848	0	848	100%	1922	848	20%	100%
1939	243	0	243	29%	1922	848	21%	100%
1940	848	0	848	100%	1922	848	22%	100%
1941	848	0	848	100%	1938	848	23%	100%
1942	848	0	848	100%	1938	848	25%	100%
1943	773	0	773	91%	1956	848	26%	100%
1944	400	0	400	47%	1956	848	27%	100%
1945	750	0	750	88%	1996	832	28%	98%
1946	824	0	824	97%	1946	824	30%	97%
1947	248	0	248	29%	1975	822	31%	97%
1948	635	0	635	75%	1971	820	32%	97%
1949	305	0	305	36%	1984	819	33%	97%
1950	574	0	574	68%	1965	810	35%	95%
1951	848	0	848	100%	1936	808	36%	95%
1952	848	0	848	100%	2003	807	37%	95%
1953	764	0	764	90%	1935	807	38%	95%
1954	693	0	693	82%	1986	780	40%	92%
1955	259	0	259	31%	1980	776	41%	92%
1956	848	0	848	100%	1968	775	42%	91%
1957	524	0	524	62%	1943	773	43%	91%
1958	848	0	848	100%	1953	764	44%	90%
1959	539	0	539	64%	1945	750	46%	88%
1960	447	0	447	53%	1999	746	47%	88%
1961	300	0	300	35%	2000	718	48%	85%
1962	848	0	848	100%	1954	693	49%	82%
1963	848	0	848	100%	1928	682	51%	80%
1964	266	0	266	31%	1997	674	52%	80%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	810	0	810	95%	1937	648	53%	76%
1966	604	0	604	71%	1948	635	54%	75%
1967	848	0	848	100%	2002	633	56%	75%
1968	775	0	775	91%	1989	633	57%	75%
1969	848	0	848	100%	1979	624	58%	74%
1970	848	0	848	100%	1966	604	59%	71%
1971	820	0	820	97%	1950	574	60%	68%
1972	325	0	325	38%	1923	560	62%	66%
1973	848	0	848	100%	1959	539	63%	64%
1974	848	0	848	100%	1957	524	64%	62%
1975	822	0	822	97%	1981	513	65%	61%
1976	296	0	296	35%	1925	483	67%	57%
1977	91	0	91	11%	1930	475	68%	56%
1978	848	0	848	100%	1960	447	69%	53%
1979	624	0	624	74%	1932	430	70%	51%
1980	776	0	776	92%	1926	422	72%	50%
1981	513	0	513	61%	1944	400	73%	47%
1982	848	0	848	100%	1985	381	74%	45%
1983	848	0	848	100%	1972	325	75%	38%
1984	819	0	819	97%	1949	305	77%	36%
1985	381	0	381	45%	1961	300	78%	35%
1986	780	0	780	92%	1976	296	79%	35%
1987	114	0	114	13%	1994	287	80%	34%
1988	216	0	216	25%	1934	278	81%	33%
1989	633	0	633	75%	1964	266	83%	31%
1990	109	0	109	13%	1955	259	84%	31%
1991	135	0	135	16%	2001	252	85%	30%
1992	186	0	186	22%	1947	248	86%	29%
1993	848	0	848	100%	1939	243	88%	29%
1994	287	0	287	34%	1933	223	89%	26%
1995	848	0	848	100%	1988	216	90%	25%
1996	832	0	832	98%	1992	186	91%	22%
1997	674	0	674	80%	1991	135	93%	16%
1998	848	0	848	100%	1987	114	94%	13%
1999	746	0	746	88%	1990	109	95%	13%
2000	718	0	718	85%	1931	103	96%	12%
2001	252	0	252	30%	1977	91	98%	11%
2002	633	0	633	75%	1929	72	99%	8%
2003	807	0	807	95%	1924	41	100%	5%
Average	596	0	596	70%		596		70%
Maximum	848	0	848	100%		848		100%
Minimum	41	0	41	5%		41		5%

Table F.16. Kern County WA-MI: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	135	0	135	100%	1942	135	0%	100%
1923	89	0	89	66%	1942	135	1%	100%
1924	7	0	7	5%	1942	135	2%	100%
1925	77	0	77	57%	1942	135	4%	100%
1926	67	0	67	50%	1927	135	5%	100%
1927	135	0	135	100%	1927	135	6%	100%
1928	115	0	115	85%	1927	135	7%	100%
1929	11	0	11	8%	1927	135	9%	100%
1930	76	0	76	56%	1927	135	10%	100%
1931	17	0	17	13%	1927	135	11%	100%
1932	68	0	68	51%	1927	135	12%	100%
1933	36	0	36	27%	1927	135	14%	100%
1934	46	0	46	34%	1927	135	15%	100%
1935	135	0	135	100%	1927	135	16%	100%
1936	135	0	135	100%	1927	135	17%	100%
1937	103	0	103	76%	1927	135	19%	100%
1938	135	0	135	100%	1922	135	20%	100%
1939	40	0	40	30%	1922	135	21%	100%
1940	135	0	135	100%	1922	135	22%	100%
1941	135	0	135	100%	1922	135	23%	100%
1942	135	0	135	100%	1922	135	25%	100%
1943	123	0	123	91%	1922	135	26%	100%
1944	64	0	64	47%	1922	135	27%	100%
1945	119	0	119	88%	1922	135	28%	100%
1946	135	0	135	100%	1922	135	30%	100%
1947	43	0	43	32%	1922	135	31%	100%
1948	101	0	101	75%	1922	135	32%	100%
1949	48	0	48	36%	1962	135	33%	100%
1950	91	0	91	68%	1996	132	35%	98%
1951	135	0	135	100%	2000	132	36%	98%
1952	135	0	135	100%	1984	130	37%	97%
1953	127	0	127	95%	1965	129	38%	95%
1954	110	0	110	82%	1953	127	40%	95%
1955	41	0	41	31%	1980	126	41%	93%
1956	135	0	135	100%	2003	124	42%	92%
1957	83	0	83	62%	1986	124	43%	92%
1958	135	0	135	100%	1968	123	44%	91%
1959	79	0	79	59%	1943	123	46%	91%
1960	71	0	71	53%	1999	122	47%	90%
1961	48	0	48	36%	1945	119	48%	88%
1962	135	0	135	100%	1928	115	49%	85%
1963	135	0	135	100%	1954	110	51%	82%
1964	45	0	45	34%	1997	107	52%	80%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	129	0	129	95%	1937	103	53%	76%
1966	96	0	96	71%	1948	101	54%	75%
1967	135	0	135	100%	1979	99	56%	74%
1968	123	0	123	91%	1966	96	57%	71%
1969	135	0	135	100%	1989	91	58%	68%
1970	135	0	135	100%	1950	91	59%	68%
1971	135	0	135	100%	1923	89	60%	66%
1972	52	0	52	38%	2002	87	62%	64%
1973	135	0	135	100%	1957	83	63%	62%
1974	135	0	135	100%	1981	81	64%	61%
1975	135	0	135	100%	1959	79	65%	59%
1976	47	0	47	35%	1985	77	67%	57%
1977	14	0	14	11%	1925	77	68%	57%
1978	135	0	135	100%	1930	76	69%	56%
1979	99	0	99	74%	1960	71	70%	53%
1980	126	0	126	93%	1932	68	72%	51%
1981	81	0	81	61%	1926	67	73%	50%
1982	135	0	135	100%	1944	64	74%	47%
1983	135	0	135	100%	1994	58	75%	43%
1984	130	0	130	97%	1972	52	77%	38%
1985	77	0	77	57%	1961	48	78%	36%
1986	124	0	124	92%	1949	48	79%	36%
1987	33	0	33	24%	1976	47	80%	35%
1988	35	0	35	26%	1934	46	81%	34%
1989	91	0	91	68%	1964	45	83%	34%
1990	16	0	16	12%	1947	43	84%	32%
1991	22	0	22	16%	1955	41	85%	31%
1992	31	0	31	23%	1939	40	86%	30%
1993	135	0	135	100%	2001	40	88%	30%
1994	58	0	58	43%	1933	36	89%	27%
1995	135	0	135	100%	1988	35	90%	26%
1996	132	0	132	98%	1987	33	91%	24%
1997	107	0	107	80%	1992	31	93%	23%
1998	135	0	135	100%	1991	22	94%	16%
1999	122	0	122	90%	1931	17	95%	13%
2000	132	0	132	98%	1990	16	96%	12%
2001	40	0	40	30%	1977	14	98%	11%
2002	87	0	87	64%	1929	11	99%	8%
2003	124	0	124	92%	1924	7	100%	5%
Average	96	0	96	71%		96		71%
Maximum	135	0	135	100%		135		100%
Minimum	7	0	7	5%		7		5%

Table F.17. Littlerock Creek ID: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	2	0	2	100%	1922	2	0%	100%
1923	2	0	2	66%	1922	2	1%	100%
1924	0	0	0	5%	1922	2	2%	100%
1925	1	0	1	57%	1922	2	4%	100%
1926	1	0	1	50%	1922	2	5%	100%
1927	2	0	2	100%	1922	2	6%	100%
1928	2	0	2	85%	1922	2	7%	100%
1929	0	0	0	8%	1922	2	9%	100%
1930	1	0	1	57%	1922	2	10%	100%
1931	0	0	0	13%	1922	2	11%	100%
1932	1	0	1	51%	1922	2	12%	100%
1933	1	0	1	27%	1922	2	14%	100%
1934	1	0	1	34%	1922	2	15%	100%
1935	2	0	2	100%	1922	2	16%	100%
1936	2	0	2	100%	1927	2	17%	100%
1937	2	0	2	76%	1927	2	19%	100%
1938	2	0	2	100%	1927	2	20%	100%
1939	1	0	1	34%	1927	2	21%	100%
1940	2	0	2	100%	1927	2	22%	100%
1941	2	0	2	100%	1927	2	23%	100%
1942	2	0	2	100%	1927	2	25%	100%
1943	2	0	2	91%	1927	2	26%	100%
1944	1	0	1	47%	1927	2	27%	100%
1945	2	0	2	88%	1927	2	28%	100%
1946	2	0	2	100%	1927	2	30%	100%
1947	1	0	1	29%	1927	2	31%	100%
1948	2	0	2	75%	1927	2	32%	100%
1949	1	0	1	36%	1927	2	33%	100%
1950	2	0	2	68%	1973	2	35%	100%
1951	2	0	2	100%	1996	2	36%	98%
1952	2	0	2	100%	2000	2	37%	98%
1953	2	0	2	100%	2003	2	38%	97%
1954	2	0	2	82%	1984	2	40%	97%
1955	1	0	1	31%	1965	2	41%	95%
1956	2	0	2	100%	1986	2	42%	92%
1957	1	0	1	62%	1968	2	43%	91%
1958	2	0	2	100%	1980	2	44%	91%
1959	2	0	2	65%	1943	2	46%	91%
1960	1	0	1	53%	1945	2	47%	88%
1961	1	0	1	41%	1928	2	48%	85%
1962	2	0	2	100%	1954	2	49%	82%
1963	2	0	2	100%	1997	2	51%	80%
1964	1	0	1	34%	1999	2	52%	79%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	2	0	2	95%	1937	2	53%	76%
1966	2	0	2	71%	1989	2	54%	76%
1967	2	0	2	100%	1948	2	56%	75%
1968	2	0	2	91%	1979	2	57%	74%
1969	2	0	2	100%	1966	2	58%	71%
1970	2	0	2	100%	1950	2	59%	68%
1971	2	0	2	100%	1923	2	60%	66%
1972	1	0	1	38%	1959	2	62%	65%
1973	2	0	2	100%	2002	1	63%	65%
1974	2	0	2	100%	1957	1	64%	62%
1975	2	0	2	100%	1981	1	65%	61%
1976	1	0	1	35%	1985	1	67%	57%
1977	0	0	0	11%	1925	1	68%	57%
1978	2	0	2	100%	1930	1	69%	57%
1979	2	0	2	74%	1960	1	70%	53%
1980	2	0	2	91%	1932	1	72%	51%
1981	1	0	1	61%	1926	1	73%	50%
1982	2	0	2	100%	1944	1	74%	47%
1983	2	0	2	100%	1961	1	75%	41%
1984	2	0	2	97%	1994	1	77%	40%
1985	1	0	1	57%	1972	1	78%	38%
1986	2	0	2	92%	1949	1	79%	36%
1987	1	0	1	24%	1976	1	80%	35%
1988	1	0	1	26%	1939	1	81%	34%
1989	2	0	2	76%	1934	1	83%	34%
1990	0	0	0	22%	1964	1	84%	34%
1991	0	0	0	16%	1955	1	85%	31%
1992	1	0	1	23%	2001	1	86%	30%
1993	2	0	2	100%	1947	1	88%	29%
1994	1	0	1	40%	1933	1	89%	27%
1995	2	0	2	100%	1988	1	90%	26%
1996	2	0	2	98%	1987	1	91%	24%
1997	2	0	2	80%	1992	1	93%	23%
1998	2	0	2	100%	1990	0	94%	22%
1999	2	0	2	79%	1991	0	95%	16%
2000	2	0	2	98%	1931	0	96%	13%
2001	1	0	1	30%	1977	0	98%	11%
2002	1	0	1	65%	1929	0	99%	8%
2003	2	0	2	97%	1924	0	100%	5%
Average	2	0	2	71%		2		71%
Maximum	2	0	2	100%		2		100%
Minimum	0	0	0	5%		0		5%

Table F.18. Metropolitan WDSC: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	1,625	0	1,625	85%	1942	1,882	0%	98%
1923	1,167	200	1,367	71%	1952	1,881	1%	98%
1924	93	96	189	10%	1941	1,864	2%	98%
1925	1,090	0	1,090	57%	1974	1,852	4%	97%
1926	951	0	951	50%	1963	1,848	5%	97%
1927	1,625	0	1,625	85%	1969	1,823	6%	95%
1928	1,200	200	1,400	73%	1938	1,809	7%	95%
1929	161	151	312	16%	1967	1,801	9%	94%
1930	1,146	0	1,146	60%	1983	1,777	10%	93%
1931	247	82	329	17%	1998	1,764	11%	92%
1932	969	0	969	51%	2003	1,752	12%	92%
1933	518	0	518	27%	1968	1,742	14%	91%
1934	649	0	649	34%	1984	1,732	15%	91%
1935	1,434	0	1,434	75%	1970	1,726	16%	90%
1936	1,528	108	1,636	86%	1996	1,705	17%	89%
1937	1,308	93	1,401	73%	1982	1,697	19%	89%
1938	1,679	130	1,809	95%	1951	1,684	20%	88%
1939	731	200	931	49%	1958	1,677	21%	88%
1940	1,369	0	1,369	72%	1999	1,668	22%	87%
1941	1,667	197	1,864	98%	1973	1,661	23%	87%
1942	1,684	199	1,882	98%	1993	1,660	25%	87%
1943	1,372	197	1,569	82%	1995	1,660	26%	87%
1944	902	182	1,085	57%	1978	1,657	27%	87%
1945	1,480	0	1,480	77%	1946	1,652	28%	86%
1946	1,477	175	1,652	86%	1971	1,638	30%	86%
1947	692	80	772	40%	1936	1,636	31%	86%
1948	1,260	0	1,260	66%	1927	1,625	32%	85%
1949	687	150	836	44%	1922	1,625	33%	85%
1950	1,183	0	1,183	62%	1953	1,621	35%	85%
1951	1,635	50	1,684	88%	1954	1,598	36%	84%
1952	1,681	200	1,881	98%	1980	1,588	37%	83%
1953	1,421	200	1,621	85%	1975	1,577	38%	82%
1954	1,398	200	1,598	84%	1943	1,569	40%	82%
1955	583	163	746	39%	1965	1,565	41%	82%
1956	1,553	0	1,553	81%	1956	1,553	42%	81%
1957	1,140	160	1,300	68%	1962	1,539	43%	80%
1958	1,636	41	1,677	88%	2000	1,499	44%	78%
1959	1,199	200	1,399	73%	1997	1,480	46%	77%
1960	1,007	34	1,040	54%	1945	1,480	47%	77%
1961	859	0	859	45%	1979	1,459	48%	76%
1962	1,539	0	1,539	80%	1935	1,434	49%	75%
1963	1,648	200	1,848	97%	1937	1,401	51%	73%
1964	642	200	842	44%	1928	1,400	52%	73%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	1,565	0	1,565	82%	1959	1,399	53%	73%
1966	1,218	138	1,356	71%	2002	1,371	54%	72%
1967	1,661	141	1,801	94%	1940	1,369	56%	72%
1968	1,543	199	1,742	91%	1923	1,367	57%	71%
1969	1,661	162	1,823	95%	1986	1,367	58%	71%
1970	1,626	100	1,726	90%	1966	1,356	59%	71%
1971	1,438	200	1,638	86%	1957	1,300	60%	68%
1972	732	160	892	47%	1981	1,295	62%	68%
1973	1,661	0	1,661	87%	1948	1,260	63%	66%
1974	1,684	168	1,852	97%	1989	1,194	64%	62%
1975	1,377	200	1,577	82%	1950	1,183	65%	62%
1976	667	129	796	42%	1930	1,146	67%	60%
1977	205	0	205	11%	1925	1,090	68%	57%
1978	1,657	0	1,657	87%	1985	1,088	69%	57%
1979	1,260	199	1,459	76%	1944	1,085	70%	57%
1980	1,460	128	1,588	83%	1994	1,042	72%	55%
1981	1,140	155	1,295	68%	1960	1,040	73%	54%
1982	1,684	14	1,697	89%	1932	969	74%	51%
1983	1,687	90	1,777	93%	1926	951	75%	50%
1984	1,642	90	1,732	91%	1939	931	77%	49%
1985	895	193	1,088	57%	1972	892	78%	47%
1986	1,367	0	1,367	71%	1961	859	79%	45%
1987	464	19	482	25%	1964	842	80%	44%
1988	502	0	502	26%	1949	836	81%	44%
1989	1,194	0	1,194	62%	1976	796	83%	42%
1990	412	161	573	30%	1947	772	84%	40%
1991	314	0	314	16%	1955	746	85%	39%
1992	447	0	447	23%	1934	649	86%	34%
1993	1,660	0	1,660	87%	2001	638	88%	33%
1994	842	200	1,042	55%	1990	573	89%	30%
1995	1,660	0	1,660	87%	1933	518	90%	27%
1996	1,506	199	1,705	89%	1988	502	91%	26%
1997	1,314	166	1,480	77%	1987	482	93%	25%
1998	1,665	99	1,764	92%	1992	447	94%	23%
1999	1,468	200	1,668	87%	1931	329	95%	17%
2000	1,344	155	1,499	78%	1991	314	96%	16%
2001	568	70	638	33%	1929	312	98%	16%
2002	1,371	0	1,371	72%	1977	205	99%	11%
2003	1,626	126	1,752	92%	1924	189	100%	10%
Average	1,195	97	1,292	68%		1,292		68%
Maximum	1,687	200	1,882	98%		1,882		98%
Minimum	93	0	189	10%		189		10%

Table F.19. Mojave WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	83	0	83	100%	1973	83	0%	100%
1923	55	0	55	66%	1922	83	1%	100%
1924	4	0	4	5%	1922	83	2%	100%
1925	47	0	47	57%	1922	83	4%	100%
1926	41	0	41	50%	1922	83	5%	100%
1927	83	0	83	100%	1922	83	6%	100%
1928	71	0	71	85%	1922	83	7%	100%
1929	7	0	7	8%	1922	83	9%	100%
1930	54	0	54	66%	1922	83	10%	100%
1931	11	0	11	13%	1922	83	11%	100%
1932	42	0	42	51%	1922	83	12%	100%
1933	22	0	22	27%	1927	83	14%	100%
1934	28	0	28	34%	1927	83	15%	100%
1935	83	0	83	100%	1927	83	16%	100%
1936	83	0	83	100%	1927	83	17%	100%
1937	63	0	63	76%	1927	83	19%	100%
1938	83	0	83	100%	1927	83	20%	100%
1939	35	0	35	42%	1927	83	21%	100%
1940	83	0	83	100%	1927	83	22%	100%
1941	83	0	83	100%	1927	83	23%	100%
1942	83	0	83	100%	1927	83	25%	100%
1943	75	0	75	91%	1927	83	26%	100%
1944	39	0	39	47%	1927	83	27%	100%
1945	73	0	73	88%	1927	83	28%	100%
1946	83	0	83	100%	1962	83	30%	100%
1947	30	0	30	36%	1962	83	31%	100%
1948	62	0	62	75%	2000	81	32%	98%
1949	30	0	30	36%	1980	81	33%	97%
1950	56	0	56	68%	1984	80	35%	97%
1951	83	0	83	100%	1965	79	36%	95%
1952	83	0	83	100%	1968	76	37%	91%
1953	83	0	83	100%	1943	75	38%	91%
1954	68	0	68	82%	1999	75	40%	90%
1955	25	0	25	31%	1989	74	41%	89%
1956	68	0	68	82%	1945	73	42%	88%
1957	51	0	51	62%	2003	72	43%	87%
1958	83	0	83	100%	1928	71	44%	85%
1959	63	0	63	76%	2002	69	46%	83%
1960	44	0	44	53%	1956	68	47%	82%
1961	43	0	43	52%	1954	68	48%	82%
1962	83	0	83	100%	1971	67	49%	82%
1963	83	0	83	100%	1997	66	51%	80%
1964	28	0	28	34%	1996	66	52%	79%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	79	0	79	95%	1975	65	53%	78%
1966	59	0	59	71%	1937	63	54%	76%
1967	83	0	83	100%	1959	63	56%	76%
1968	76	0	76	91%	1948	62	57%	75%
1969	83	0	83	100%	1979	61	58%	74%
1970	83	0	83	100%	1986	60	59%	73%
1971	67	0	67	82%	1966	59	60%	71%
1972	32	0	32	38%	1950	56	62%	68%
1973	83	0	83	100%	1923	55	63%	66%
1974	83	0	83	100%	1930	54	64%	66%
1975	65	0	65	78%	1957	51	65%	62%
1976	29	0	29	35%	1981	50	67%	61%
1977	9	0	9	11%	1985	48	68%	57%
1978	83	0	83	100%	1925	47	69%	57%
1979	61	0	61	74%	1960	44	70%	53%
1980	81	0	81	97%	1961	43	72%	52%
1981	50	0	50	61%	1932	42	73%	51%
1982	83	0	83	100%	1926	41	74%	50%
1983	83	0	83	100%	1994	41	75%	50%
1984	80	0	80	97%	1944	39	77%	47%
1985	48	0	48	57%	1939	35	78%	42%
1986	60	0	60	73%	1972	32	79%	38%
1987	20	0	20	24%	1947	30	80%	36%
1988	22	0	22	26%	1949	30	81%	36%
1989	74	0	74	89%	1976	29	83%	35%
1990	18	0	18	22%	1934	28	84%	34%
1991	14	0	14	16%	1964	28	85%	34%
1992	19	0	19	23%	1955	25	86%	31%
1993	83	0	83	100%	2001	25	88%	30%
1994	41	0	41	50%	1933	22	89%	27%
1995	83	0	83	100%	1988	22	90%	26%
1996	66	0	66	79%	1987	20	91%	24%
1997	66	0	66	80%	1992	19	93%	23%
1998	83	0	83	100%	1990	18	94%	22%
1999	75	0	75	90%	1991	14	95%	16%
2000	81	0	81	98%	1931	11	96%	13%
2001	25	0	25	30%	1977	9	98%	11%
2002	69	0	69	83%	1929	7	99%	8%
2003	72	0	72	87%	1924	4	100%	5%
Average	59	0	59	71%		59		71%
Maximum	83	0	83	100%		83		100%
Minimum	4	0	4	5%		4		5%

Table F.20. Napa County FC&WCD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	100%	1963	29	0%	100%
1923	27	0	27	94%	1963	29	1%	100%
1924	10	0	10	33%	1963	29	2%	100%
1925	20	0	20	68%	1963	29	4%	100%
1926	20	0	20	68%	1922	29	5%	100%
1927	29	0	29	99%	1922	29	6%	100%
1928	29	0	29	99%	1922	29	7%	100%
1929	10	0	10	33%	1922	29	9%	100%
1930	20	0	20	68%	1922	29	10%	100%
1931	10	0	10	33%	1922	29	11%	100%
1932	10	0	10	33%	1938	29	12%	100%
1933	10	0	10	33%	1938	29	14%	100%
1934	10	0	10	33%	1938	29	15%	100%
1935	20	0	20	68%	1938	29	16%	100%
1936	27	0	27	94%	1942	29	17%	100%
1937	20	0	20	68%	1942	29	19%	100%
1938	29	0	29	100%	1942	29	20%	100%
1939	27	0	27	94%	1942	29	21%	100%
1940	29	0	29	99%	1942	29	22%	100%
1941	29	0	29	100%	1942	29	23%	100%
1942	29	0	29	100%	1942	29	25%	100%
1943	29	0	29	100%	1942	29	26%	100%
1944	20	0	20	68%	1942	29	27%	100%
1945	27	0	27	94%	1942	29	28%	100%
1946	29	0	29	99%	1942	29	30%	100%
1947	20	0	20	68%	1942	29	31%	100%
1948	27	0	27	94%	2003	29	32%	99%
1949	20	0	20	68%	1928	29	33%	99%
1950	20	0	20	68%	1928	29	35%	99%
1951	29	0	29	99%	1928	29	36%	99%
1952	29	0	29	100%	1927	29	37%	99%
1953	29	0	29	100%	1927	29	38%	99%
1954	29	0	29	99%	1927	29	40%	99%
1955	20	0	20	68%	1927	29	41%	99%
1956	29	0	29	100%	1927	29	42%	99%
1957	29	0	29	99%	1927	29	43%	99%
1958	29	0	29	100%	1954	29	44%	99%
1959	27	0	27	94%	1954	29	46%	99%
1960	20	0	20	68%	1954	29	47%	99%
1961	20	0	20	68%	1923	27	48%	94%
1962	27	0	27	94%	1923	27	49%	94%
1963	29	0	29	100%	1923	27	51%	94%
1964	20	0	20	68%	1923	27	52%	94%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	29	0	29	100%	1923	27	53%	94%
1966	27	0	27	94%	1923	27	54%	94%
1967	29	0	29	100%	1923	27	56%	94%
1968	27	0	27	94%	1936	27	57%	94%
1969	29	0	29	100%	1936	27	58%	94%
1970	29	0	29	100%	1936	27	59%	94%
1971	29	0	29	100%	1936	27	60%	94%
1972	27	0	27	94%	1925	20	62%	68%
1973	29	0	29	99%	1925	20	63%	68%
1974	29	0	29	100%	1925	20	64%	68%
1975	29	0	29	100%	1925	20	65%	68%
1976	20	0	20	68%	1925	20	67%	68%
1977	10	0	10	33%	1925	20	68%	68%
1978	29	0	29	99%	1925	20	69%	68%
1979	20	0	20	68%	1925	20	70%	68%
1980	29	0	29	99%	1925	20	72%	68%
1981	20	0	20	68%	1926	20	73%	68%
1982	29	0	29	100%	1926	20	74%	68%
1983	29	0	29	100%	1926	20	75%	68%
1984	29	0	29	100%	1926	20	77%	68%
1985	27	0	27	94%	1937	20	78%	68%
1986	29	0	29	100%	1937	20	79%	68%
1987	20	0	20	68%	1937	20	80%	68%
1988	10	0	10	33%	1937	20	81%	68%
1989	20	0	20	68%	1937	20	83%	68%
1990	10	0	10	33%	1937	20	84%	68%
1991	10	0	10	33%	1937	20	85%	68%
1992	10	0	10	33%	1929	10	86%	33%
1993	29	0	29	99%	1929	10	88%	33%
1994	10	0	10	33%	1929	10	89%	33%
1995	29	0	29	100%	1929	10	90%	33%
1996	29	0	29	100%	1929	10	91%	33%
1997	29	0	29	100%	1929	10	93%	33%
1998	29	0	29	100%	1929	10	94%	33%
1999	29	0	29	100%	1929	10	95%	33%
2000	29	0	29	99%	1931	10	96%	33%
2001	20	0	20	68%	1931	10	98%	33%
2002	20	0	20	68%	1931	10	99%	33%
2003	29	0	29	99%	1924	10	100%	33%
Average	24	0	24	81%		24		81%
Maximum	29	0	29	100%		29		100%
Minimum	10	0	10	33%		10		33%

Table F.21. Oak Flat WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	6	0	6	100%	1922	6	0%	100%
1923	4	0	4	66%	1922	6	1%	100%
1924	0	0	0	5%	1922	6	2%	100%
1925	3	0	3	57%	1922	6	4%	100%
1926	3	0	3	46%	1922	6	5%	100%
1927	6	0	6	100%	1922	6	6%	100%
1928	5	0	5	85%	1922	6	7%	100%
1929	0	0	0	8%	1922	6	9%	100%
1930	4	0	4	64%	1922	6	10%	100%
1931	0	0	0	9%	1922	6	11%	100%
1932	3	0	3	51%	1922	6	12%	100%
1933	1	0	1	26%	1922	6	14%	100%
1934	2	0	2	29%	1922	6	15%	100%
1935	6	0	6	100%	1938	6	16%	100%
1936	6	0	6	100%	1938	6	17%	100%
1937	4	0	4	76%	1938	6	19%	100%
1938	6	0	6	100%	1938	6	20%	100%
1939	2	0	2	39%	1938	6	21%	100%
1940	6	0	6	100%	1938	6	22%	100%
1941	6	0	6	100%	1938	6	23%	100%
1942	6	0	6	100%	1958	6	25%	100%
1943	5	0	5	91%	1958	6	26%	100%
1944	3	0	3	44%	1958	6	27%	100%
1945	5	0	5	88%	1958	6	28%	100%
1946	6	0	6	100%	1958	6	30%	100%
1947	1	0	1	24%	1958	6	31%	100%
1948	4	0	4	75%	1935	6	32%	100%
1949	2	0	2	34%	1935	6	33%	100%
1950	4	0	4	68%	1935	6	35%	100%
1951	6	0	6	100%	2003	6	36%	98%
1952	6	0	6	100%	1996	6	37%	98%
1953	6	0	6	100%	2000	6	38%	98%
1954	5	0	5	82%	1984	6	40%	97%
1955	2	0	2	31%	1980	5	41%	96%
1956	6	0	6	100%	1965	5	42%	95%
1957	4	0	4	62%	1986	5	43%	92%
1958	6	0	6	100%	1968	5	44%	91%
1959	4	0	4	68%	1943	5	46%	91%
1960	3	0	3	49%	1999	5	47%	90%
1961	2	0	2	43%	1945	5	48%	88%
1962	6	0	6	100%	1928	5	49%	85%
1963	6	0	6	100%	2002	5	51%	83%
1964	1	0	1	23%	1954	5	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	5	0	5	95%	1989	5	53%	81%
1966	4	0	4	71%	1997	5	54%	80%
1967	6	0	6	100%	1937	4	56%	76%
1968	5	0	5	91%	1948	4	57%	75%
1969	6	0	6	100%	1979	4	58%	74%
1970	6	0	6	100%	1966	4	59%	71%
1971	6	0	6	100%	1959	4	60%	68%
1972	2	0	2	38%	1950	4	62%	68%
1973	6	0	6	100%	1923	4	63%	66%
1974	6	0	6	100%	1930	4	64%	64%
1975	6	0	6	100%	1957	4	65%	62%
1976	2	0	2	35%	1981	3	67%	61%
1977	1	0	1	11%	1925	3	68%	57%
1978	6	0	6	100%	1985	3	69%	53%
1979	4	0	4	74%	1932	3	70%	51%
1980	5	0	5	96%	1960	3	72%	49%
1981	3	0	3	61%	1994	3	73%	46%
1982	6	0	6	100%	1926	3	74%	46%
1983	6	0	6	100%	1944	3	75%	44%
1984	6	0	6	97%	1961	2	77%	43%
1985	3	0	3	53%	1939	2	78%	39%
1986	5	0	5	92%	1972	2	79%	38%
1987	1	0	1	16%	1976	2	80%	35%
1988	1	0	1	22%	1949	2	81%	34%
1989	5	0	5	81%	1955	2	83%	31%
1990	1	0	1	15%	1934	2	84%	29%
1991	1	0	1	16%	2001	2	85%	28%
1992	1	0	1	20%	1933	1	86%	26%
1993	6	0	6	100%	1947	1	88%	24%
1994	3	0	3	46%	1964	1	89%	23%
1995	6	0	6	100%	1988	1	90%	22%
1996	6	0	6	98%	1992	1	91%	20%
1997	5	0	5	80%	1991	1	93%	16%
1998	6	0	6	100%	1987	1	94%	16%
1999	5	0	5	90%	1990	1	95%	15%
2000	6	0	6	98%	1977	1	96%	11%
2001	2	0	2	28%	1931	0	98%	9%
2002	5	0	5	83%	1929	0	99%	8%
2003	6	0	6	98%	1924	0	100%	5%
Average	4	0	4	71%		4		71%
Maximum	6	0	6	100%		6		100%
Minimum	0	0	0	5%		0		5%

Table F.22. Palmdale WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	21	0	21	100%	1941	21	0%	100%
1923	14	0	14	66%	1941	21	1%	100%
1924	1	0	1	5%	1935	21	2%	100%
1925	12	0	12	57%	1935	21	4%	100%
1926	11	0	11	50%	1935	21	5%	100%
1927	21	0	21	100%	1935	21	6%	100%
1928	18	0	18	85%	1935	21	7%	100%
1929	2	0	2	8%	1935	21	9%	100%
1930	12	0	12	56%	1935	21	10%	100%
1931	3	0	3	13%	1927	21	11%	100%
1932	11	0	11	51%	1927	21	12%	100%
1933	6	0	6	27%	1927	21	14%	100%
1934	7	0	7	34%	1927	21	15%	100%
1935	21	0	21	100%	1927	21	16%	100%
1936	21	0	21	100%	1927	21	17%	100%
1937	16	0	16	76%	1927	21	19%	100%
1938	21	0	21	100%	1927	21	20%	100%
1939	7	0	7	31%	1927	21	21%	100%
1940	21	0	21	100%	1927	21	22%	100%
1941	21	0	21	100%	1927	21	23%	100%
1942	21	0	21	100%	1927	21	25%	100%
1943	19	0	19	91%	1927	21	26%	100%
1944	10	0	10	47%	1927	21	27%	100%
1945	19	0	19	88%	1927	21	28%	100%
1946	21	0	21	100%	1922	21	30%	100%
1947	6	0	6	27%	1922	21	31%	100%
1948	16	0	16	75%	1922	21	32%	100%
1949	8	0	8	36%	1922	21	33%	100%
1950	14	0	14	68%	1922	21	35%	100%
1951	21	0	21	100%	1996	21	36%	98%
1952	21	0	21	100%	2000	21	37%	98%
1953	21	0	21	100%	1984	21	38%	97%
1954	17	0	17	82%	1965	20	40%	95%
1955	6	0	6	31%	1986	20	41%	92%
1956	21	0	21	100%	1968	19	42%	91%
1957	13	0	13	62%	1980	19	43%	91%
1958	21	0	21	100%	1943	19	44%	91%
1959	14	0	14	65%	1945	19	46%	88%
1960	11	0	11	53%	1928	18	47%	85%
1961	8	0	8	38%	1954	17	48%	82%
1962	21	0	21	100%	1997	17	49%	80%
1963	21	0	21	100%	2003	17	51%	78%
1964	7	0	7	34%	1999	17	52%	78%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	20	0	20	95%	1937	16	53%	76%
1966	15	0	15	71%	1989	16	54%	76%
1967	21	0	21	100%	1948	16	56%	75%
1968	19	0	19	91%	1979	16	57%	74%
1969	21	0	21	100%	1966	15	58%	71%
1970	21	0	21	100%	1950	14	59%	68%
1971	21	0	21	100%	1923	14	60%	66%
1972	8	0	8	38%	1959	14	62%	65%
1973	21	0	21	100%	2002	14	63%	64%
1974	21	0	21	100%	1957	13	64%	62%
1975	21	0	21	100%	1981	13	65%	61%
1976	7	0	7	35%	1985	12	67%	57%
1977	2	0	2	11%	1925	12	68%	57%
1978	21	0	21	100%	1930	12	69%	56%
1979	16	0	16	74%	1960	11	70%	53%
1980	19	0	19	91%	1932	11	72%	51%
1981	13	0	13	61%	1926	11	73%	50%
1982	21	0	21	100%	1944	10	74%	47%
1983	21	0	21	100%	1961	8	75%	38%
1984	21	0	21	97%	1972	8	77%	38%
1985	12	0	12	57%	1994	8	78%	37%
1986	20	0	20	92%	1949	8	79%	36%
1987	5	0	5	24%	1976	7	80%	35%
1988	6	0	6	26%	1934	7	81%	34%
1989	16	0	16	76%	1964	7	83%	34%
1990	5	0	5	22%	1939	7	84%	31%
1991	4	0	4	16%	1955	6	85%	31%
1992	5	0	5	23%	2001	6	86%	30%
1993	21	0	21	100%	1933	6	88%	27%
1994	8	0	8	37%	1947	6	89%	27%
1995	21	0	21	100%	1988	6	90%	26%
1996	21	0	21	98%	1987	5	91%	24%
1997	17	0	17	80%	1992	5	93%	23%
1998	21	0	21	100%	1990	5	94%	22%
1999	17	0	17	78%	1991	4	95%	16%
2000	21	0	21	98%	1931	3	96%	13%
2001	6	0	6	30%	1977	2	98%	11%
2002	14	0	14	64%	1929	2	99%	8%
2003	17	0	17	78%	1924	1	100%	5%
Average	15	0	15	71%		15		71%
Maximum	21	0	21	100%		21		100%
Minimum	1	0	1	5%		1		5%

Table F.23. San Bernardino Valley MWD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	91	0	91	89%	1942	103	0%	100%
1923	62	11	74	72%	1953	103	1%	100%
1924	5	5	10	10%	1941	103	2%	100%
1925	58	0	58	57%	1963	102	4%	100%
1926	51	0	51	50%	1952	101	5%	98%
1927	91	0	91	89%	1946	101	6%	98%
1928	78	11	89	87%	1969	100	7%	97%
1929	9	8	17	16%	1974	100	9%	97%
1930	63	0	63	61%	1967	99	10%	97%
1931	13	5	18	17%	1938	99	11%	96%
1932	52	0	52	51%	2000	98	12%	95%
1933	28	0	28	27%	1936	97	14%	95%
1934	35	0	35	34%	1998	97	15%	94%
1935	92	0	92	90%	1980	96	16%	94%
1936	91	6	97	95%	1968	95	17%	92%
1937	70	5	75	73%	1951	94	19%	92%
1938	91	7	99	96%	1943	94	20%	92%
1939	43	11	55	53%	1958	94	21%	91%
1940	91	0	91	89%	1935	92	22%	90%
1941	91	11	103	100%	1982	92	23%	90%
1942	91	11	103	100%	1970	92	25%	89%
1943	83	11	94	92%	1962	91	26%	89%
1944	48	10	59	57%	1927	91	27%	89%
1945	81	0	81	79%	1927	91	28%	89%
1946	91	10	101	98%	1927	91	30%	89%
1947	37	4	41	40%	1927	91	31%	89%
1948	68	0	68	67%	1927	91	32%	89%
1949	37	9	45	44%	1922	91	33%	89%
1950	63	0	63	62%	1983	91	35%	89%
1951	91	3	94	92%	1995	91	36%	89%
1952	91	10	101	98%	1928	89	37%	87%
1953	91	11	103	100%	2003	89	38%	86%
1954	75	11	86	84%	1984	88	40%	86%
1955	31	9	41	40%	1965	87	41%	85%
1956	76	0	76	74%	1971	87	42%	85%
1957	61	9	70	68%	1954	86	43%	84%
1958	91	2	94	91%	1996	85	44%	83%
1959	69	11	81	79%	1975	85	46%	83%
1960	54	2	56	54%	1989	81	47%	79%
1961	53	0	53	52%	1997	81	48%	79%
1962	91	0	91	89%	1945	81	49%	79%
1963	91	11	102	100%	1959	81	51%	79%
1964	34	11	46	45%	1999	80	52%	78%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	87	0	87	85%	1979	78	53%	76%
1966	65	7	72	70%	1956	76	54%	74%
1967	91	8	99	97%	2002	76	56%	74%
1968	83	11	95	92%	1937	75	57%	73%
1969	91	9	100	97%	1923	74	58%	72%
1970	91	1	92	89%	1966	72	59%	70%
1971	76	11	87	85%	1985	70	60%	68%
1972	39	9	48	47%	1957	70	62%	68%
1973	91	0	91	89%	1981	69	63%	68%
1974	91	9	100	97%	1986	68	64%	67%
1975	74	11	85	83%	1948	68	65%	67%
1976	36	7	43	42%	1950	63	67%	62%
1977	11	0	11	11%	1930	63	68%	61%
1978	91	0	91	89%	1994	62	69%	61%
1979	67	11	78	76%	1944	59	70%	57%
1980	89	7	96	94%	1925	58	72%	57%
1981	61	8	69	68%	1960	56	73%	54%
1982	91	1	92	90%	1939	55	74%	53%
1983	91	0	91	89%	1961	53	75%	52%
1984	88	0	88	86%	1932	52	77%	51%
1985	59	11	70	68%	1926	51	78%	50%
1986	68	0	68	67%	1972	48	79%	47%
1987	25	1	26	25%	1964	46	80%	45%
1988	27	0	27	26%	1949	45	81%	44%
1989	81	0	81	79%	1976	43	83%	42%
1990	22	9	31	30%	1947	41	84%	40%
1991	17	0	17	16%	1955	41	85%	40%
1992	24	0	24	23%	1934	35	86%	34%
1993	91	0	91	89%	2001	34	88%	33%
1994	51	11	62	61%	1990	31	89%	30%
1995	91	0	91	89%	1933	28	90%	27%
1996	74	11	85	83%	1988	27	91%	26%
1997	73	8	81	79%	1987	26	93%	25%
1998	91	5	97	94%	1992	24	94%	23%
1999	69	11	80	78%	1931	18	95%	17%
2000	89	8	98	95%	1991	17	96%	16%
2001	30	4	34	33%	1929	17	98%	16%
2002	76	0	76	74%	1977	11	99%	11%
2003	82	7	89	86%	1924	10	100%	10%
Average	67	5	72	70%		72		70%
Maximum	92	11	103	100%		103		100%
Minimum	5	0	10	10%		10		10%

Table F.24. San Gabriel Valley MWD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	29	0	29	100%	1942	29	0%	100%
1923	19	0	19	66%	1942	29	1%	100%
1924	1	0	1	5%	1942	29	2%	100%
1925	16	0	16	57%	1942	29	4%	100%
1926	14	0	14	50%	1922	29	5%	100%
1927	29	0	29	100%	1922	29	6%	100%
1928	25	0	25	85%	1922	29	7%	100%
1929	2	0	2	8%	1922	29	9%	100%
1930	19	0	19	66%	1922	29	10%	100%
1931	4	0	4	12%	1922	29	11%	100%
1932	15	0	15	51%	1922	29	12%	100%
1933	8	0	8	27%	1922	29	14%	100%
1934	10	0	10	34%	1922	29	15%	100%
1935	29	0	29	100%	1922	29	16%	100%
1936	29	0	29	100%	1922	29	17%	100%
1937	22	0	22	76%	1922	29	19%	100%
1938	29	0	29	100%	1922	29	20%	100%
1939	12	0	12	42%	1922	29	21%	100%
1940	29	0	29	100%	1922	29	22%	100%
1941	29	0	29	100%	1922	29	23%	100%
1942	29	0	29	100%	1922	29	25%	100%
1943	26	0	26	91%	1938	29	26%	100%
1944	14	0	14	47%	1938	29	27%	100%
1945	25	0	25	88%	1938	29	28%	100%
1946	29	0	29	100%	1938	29	30%	100%
1947	10	0	10	36%	1962	29	31%	100%
1948	22	0	22	75%	1962	29	32%	100%
1949	10	0	10	36%	2000	28	33%	98%
1950	19	0	19	68%	1980	28	35%	97%
1951	29	0	29	100%	1984	28	36%	97%
1952	29	0	29	100%	1965	28	37%	95%
1953	29	0	29	100%	1986	26	38%	92%
1954	24	0	24	82%	1968	26	40%	91%
1955	9	0	9	31%	1943	26	41%	91%
1956	29	0	29	100%	1989	26	42%	89%
1957	18	0	18	62%	1945	25	43%	88%
1958	29	0	29	100%	1928	25	44%	85%
1959	22	0	22	76%	2003	24	46%	85%
1960	15	0	15	53%	2002	24	47%	83%
1961	15	0	15	52%	1954	24	48%	82%
1962	29	0	29	100%	1971	23	49%	81%
1963	29	0	29	100%	1975	23	51%	80%
1964	10	0	10	34%	1997	23	52%	80%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	28	0	28	95%	1996	23	53%	79%
1966	21	0	21	71%	1937	22	54%	76%
1967	29	0	29	100%	1959	22	56%	76%
1968	26	0	26	91%	1948	22	57%	75%
1969	29	0	29	100%	1979	21	58%	74%
1970	29	0	29	100%	1999	21	59%	73%
1971	23	0	23	81%	1966	21	60%	71%
1972	11	0	11	38%	1950	19	62%	68%
1973	29	0	29	100%	1923	19	63%	66%
1974	29	0	29	100%	1930	19	64%	66%
1975	23	0	23	80%	1957	18	65%	62%
1976	10	0	10	35%	1981	17	67%	61%
1977	3	0	3	11%	1985	17	68%	57%
1978	29	0	29	100%	1925	16	69%	57%
1979	21	0	21	74%	1960	15	70%	53%
1980	28	0	28	97%	1961	15	72%	52%
1981	17	0	17	61%	1932	15	73%	51%
1982	29	0	29	100%	1926	14	74%	50%
1983	29	0	29	100%	1994	14	75%	50%
1984	28	0	28	97%	1944	14	77%	47%
1985	17	0	17	57%	1939	12	78%	42%
1986	26	0	26	92%	1972	11	79%	38%
1987	5	0	5	17%	1947	10	80%	36%
1988	8	0	8	26%	1949	10	81%	36%
1989	26	0	26	89%	1976	10	83%	35%
1990	6	0	6	22%	1934	10	84%	34%
1991	5	0	5	16%	1964	10	85%	34%
1992	7	0	7	23%	1955	9	86%	31%
1993	29	0	29	100%	2001	9	88%	30%
1994	14	0	14	50%	1933	8	89%	27%
1995	29	0	29	100%	1988	8	90%	26%
1996	23	0	23	79%	1992	7	91%	23%
1997	23	0	23	80%	1990	6	93%	22%
1998	29	0	29	100%	1987	5	94%	17%
1999	21	0	21	73%	1991	5	95%	16%
2000	28	0	28	98%	1931	4	96%	12%
2001	9	0	9	30%	1977	3	98%	11%
2002	24	0	24	83%	1929	2	99%	8%
2003	24	0	24	85%	1924	1	100%	5%
Average	21	0	21	71%		21		71%
Maximum	29	0	29	100%		29		100%
Minimum	1	0	1	5%		1		5%

Table F.25. San Geronio Pass WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	17	0	17	100%	1922	17	0%	100%
1923	11	0	11	66%	1922	17	1%	100%
1924	1	0	1	5%	1922	17	2%	100%
1925	10	0	10	57%	1922	17	4%	100%
1926	9	0	9	50%	1922	17	5%	100%
1927	17	0	17	100%	1922	17	6%	100%
1928	15	0	15	85%	1922	17	7%	100%
1929	1	0	1	8%	1922	17	9%	100%
1930	11	0	11	66%	1922	17	10%	100%
1931	2	0	2	13%	1922	17	11%	100%
1932	9	0	9	51%	1922	17	12%	100%
1933	5	0	5	27%	1922	17	14%	100%
1934	6	0	6	34%	1922	17	15%	100%
1935	17	0	17	100%	1922	17	16%	100%
1936	17	0	17	100%	1922	17	17%	100%
1937	13	0	13	76%	1922	17	19%	100%
1938	17	0	17	100%	1922	17	20%	100%
1939	7	0	7	42%	1922	17	21%	100%
1940	17	0	17	100%	1922	17	22%	100%
1941	17	0	17	100%	1922	17	23%	100%
1942	17	0	17	100%	1922	17	25%	100%
1943	16	0	16	91%	1922	17	26%	100%
1944	8	0	8	47%	1927	17	27%	100%
1945	15	0	15	88%	1927	17	28%	100%
1946	17	0	17	100%	1927	17	30%	100%
1947	6	0	6	36%	1927	17	31%	100%
1948	13	0	13	75%	1927	17	32%	100%
1949	6	0	6	36%	1927	17	33%	100%
1950	12	0	12	68%	1927	17	35%	100%
1951	17	0	17	100%	2000	17	36%	98%
1952	17	0	17	100%	1980	17	37%	97%
1953	17	0	17	100%	1984	17	38%	97%
1954	14	0	14	82%	1965	17	40%	95%
1955	5	0	5	31%	1986	16	41%	92%
1956	17	0	17	100%	1968	16	42%	91%
1957	11	0	11	62%	1943	16	43%	91%
1958	17	0	17	100%	1999	16	44%	90%
1959	13	0	13	76%	1989	15	46%	89%
1960	9	0	9	53%	1945	15	47%	88%
1961	9	0	9	52%	1928	15	48%	85%
1962	17	0	17	100%	2003	15	49%	84%
1963	17	0	17	100%	2002	14	51%	83%
1964	6	0	6	34%	1954	14	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	17	0	17	95%	1997	14	53%	80%
1966	12	0	12	71%	1996	14	54%	79%
1967	17	0	17	100%	1937	13	56%	76%
1968	16	0	16	91%	1959	13	57%	76%
1969	17	0	17	100%	1948	13	58%	75%
1970	17	0	17	100%	1979	13	59%	74%
1971	17	0	17	100%	1966	12	60%	71%
1972	7	0	7	38%	1950	12	62%	68%
1973	17	0	17	100%	1923	11	63%	66%
1974	17	0	17	100%	1930	11	64%	66%
1975	17	0	17	100%	1957	11	65%	62%
1976	6	0	6	35%	1981	10	67%	61%
1977	2	0	2	11%	1985	10	68%	57%
1978	17	0	17	100%	1925	10	69%	57%
1979	13	0	13	74%	1960	9	70%	53%
1980	17	0	17	97%	1961	9	72%	52%
1981	10	0	10	61%	1932	9	73%	51%
1982	17	0	17	100%	1926	9	74%	50%
1983	17	0	17	100%	1994	9	75%	50%
1984	17	0	17	97%	1944	8	77%	47%
1985	10	0	10	57%	1939	7	78%	42%
1986	16	0	16	92%	1972	7	79%	38%
1987	4	0	4	24%	1947	6	80%	36%
1988	5	0	5	26%	1949	6	81%	36%
1989	15	0	15	89%	1976	6	83%	35%
1990	4	0	4	22%	1934	6	84%	34%
1991	3	0	3	16%	1964	6	85%	34%
1992	4	0	4	23%	1955	5	86%	31%
1993	17	0	17	100%	2001	5	88%	30%
1994	9	0	9	50%	1933	5	89%	27%
1995	17	0	17	100%	1988	5	90%	26%
1996	14	0	14	79%	1987	4	91%	24%
1997	14	0	14	80%	1992	4	93%	23%
1998	17	0	17	100%	1990	4	94%	22%
1999	16	0	16	90%	1991	3	95%	16%
2000	17	0	17	98%	1931	2	96%	13%
2001	5	0	5	30%	1977	2	98%	11%
2002	14	0	14	83%	1929	1	99%	8%
2003	15	0	15	84%	1924	1	100%	5%
Average	12	0	12	72%		12		72%
Maximum	17	0	17	100%		17		100%
Minimum	1	0	1	5%		1		5%

Table F.26. San Luis Obispo County FC&WCD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	25	0	25	100%	1970	25	0%	100%
1923	17	0	17	66%	1975	25	1%	100%
1924	1	0	1	5%	1938	25	2%	100%
1925	14	0	14	57%	1938	25	4%	100%
1926	12	0	12	50%	1938	25	5%	100%
1927	25	0	25	100%	1938	25	6%	100%
1928	21	0	21	85%	1922	25	7%	100%
1929	2	0	2	8%	1922	25	9%	100%
1930	16	0	16	66%	1922	25	10%	100%
1931	3	0	3	13%	1922	25	11%	100%
1932	13	0	13	51%	1922	25	12%	100%
1933	7	0	7	27%	1922	25	14%	100%
1934	8	0	8	34%	1922	25	15%	100%
1935	25	0	25	100%	1922	25	16%	100%
1936	25	0	25	100%	1922	25	17%	100%
1937	19	0	19	76%	1922	25	19%	100%
1938	25	0	25	100%	1922	25	20%	100%
1939	11	0	11	42%	1922	25	21%	100%
1940	25	0	25	100%	1927	25	22%	100%
1941	25	0	25	100%	1927	25	23%	100%
1942	25	0	25	100%	1927	25	25%	100%
1943	23	0	23	91%	1927	25	26%	100%
1944	12	0	12	47%	1927	25	27%	100%
1945	22	0	22	88%	1927	25	28%	100%
1946	25	0	25	100%	1927	25	30%	100%
1947	9	0	9	36%	1927	25	31%	100%
1948	19	0	19	75%	1936	25	32%	100%
1949	9	0	9	36%	1936	25	33%	100%
1950	17	0	17	68%	1936	25	35%	100%
1951	25	0	25	100%	2003	25	36%	99%
1952	25	0	25	100%	1996	25	37%	98%
1953	25	0	25	100%	2000	24	38%	98%
1954	20	0	20	82%	1980	24	40%	97%
1955	8	0	8	31%	1984	24	41%	97%
1956	25	0	25	100%	1965	24	42%	95%
1957	15	0	15	62%	1986	23	43%	92%
1958	25	0	25	100%	1968	23	44%	91%
1959	19	0	19	76%	1943	23	46%	91%
1960	13	0	13	53%	1999	23	47%	90%
1961	13	0	13	52%	1945	22	48%	88%
1962	25	0	25	100%	1928	21	49%	85%
1963	25	0	25	100%	2002	21	51%	83%
1964	8	0	8	34%	1954	20	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	24	0	24	95%	1989	20	53%	81%
1966	18	0	18	71%	1997	20	54%	80%
1967	25	0	25	100%	1937	19	56%	76%
1968	23	0	23	91%	1959	19	57%	76%
1969	25	0	25	100%	1948	19	58%	75%
1970	25	0	25	100%	1979	18	59%	74%
1971	25	0	25	100%	1966	18	60%	71%
1972	10	0	10	38%	1950	17	62%	68%
1973	25	0	25	100%	1923	17	63%	66%
1974	25	0	25	100%	1930	16	64%	66%
1975	25	0	25	100%	1957	15	65%	62%
1976	9	0	9	35%	1981	15	67%	61%
1977	3	0	3	11%	1985	14	68%	57%
1978	25	0	25	100%	1925	14	69%	57%
1979	18	0	18	74%	1960	13	70%	53%
1980	24	0	24	97%	1961	13	72%	52%
1981	15	0	15	61%	1932	13	73%	51%
1982	25	0	25	100%	1926	12	74%	50%
1983	25	0	25	100%	1994	12	75%	50%
1984	24	0	24	97%	1944	12	77%	47%
1985	14	0	14	57%	1939	11	78%	42%
1986	23	0	23	92%	1972	10	79%	38%
1987	6	0	6	24%	1947	9	80%	36%
1988	7	0	7	26%	1949	9	81%	36%
1989	20	0	20	81%	1976	9	83%	35%
1990	5	0	5	22%	1934	8	84%	34%
1991	4	0	4	16%	1964	8	85%	34%
1992	6	0	6	23%	1955	8	86%	31%
1993	25	0	25	100%	2001	7	88%	30%
1994	12	0	12	50%	1933	7	89%	27%
1995	25	0	25	100%	1988	7	90%	26%
1996	25	0	25	98%	1987	6	91%	24%
1997	20	0	20	80%	1992	6	93%	23%
1998	25	0	25	100%	1990	5	94%	22%
1999	23	0	23	90%	1991	4	95%	16%
2000	24	0	24	98%	1931	3	96%	13%
2001	7	0	7	30%	1977	3	98%	11%
2002	21	0	21	83%	1929	2	99%	8%
2003	25	0	25	99%	1924	1	100%	5%
Average	18	0	18	73%		18		73%
Maximum	25	0	25	100%		25		100%
Minimum	1	0	1	5%		1		5%

Table F.27. Santa Barbara County FC&WCD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	45	0	45	100%	1938	45	0%	100%
1923	30	0	30	66%	1938	45	1%	100%
1924	2	0	2	5%	1938	45	2%	100%
1925	26	0	26	57%	1938	45	4%	100%
1926	23	0	23	50%	1938	45	5%	100%
1927	45	0	45	100%	1922	45	6%	100%
1928	39	0	39	85%	1922	45	7%	100%
1929	4	0	4	8%	1922	45	9%	100%
1930	24	0	24	52%	1922	45	10%	100%
1931	6	0	6	13%	1922	45	11%	100%
1932	23	0	23	51%	1922	45	12%	100%
1933	12	0	12	27%	1922	45	14%	100%
1934	15	0	15	34%	1922	45	15%	100%
1935	45	0	45	100%	1922	45	16%	100%
1936	45	0	45	100%	1935	45	17%	100%
1937	35	0	35	76%	1935	45	19%	100%
1938	45	0	45	100%	1935	45	20%	100%
1939	14	0	14	30%	1935	45	21%	100%
1940	45	0	45	100%	1935	45	22%	100%
1941	45	0	45	100%	1935	45	23%	100%
1942	45	0	45	100%	1935	45	25%	100%
1943	41	0	41	91%	1935	45	26%	100%
1944	21	0	21	47%	1935	45	27%	100%
1945	40	0	40	88%	1935	45	28%	100%
1946	45	0	45	100%	1935	45	30%	100%
1947	12	0	12	27%	1935	45	31%	100%
1948	34	0	34	75%	1935	45	32%	100%
1949	16	0	16	36%	1935	45	33%	100%
1950	31	0	31	68%	1958	45	35%	100%
1951	45	0	45	100%	1996	45	36%	98%
1952	45	0	45	100%	2000	45	37%	98%
1953	45	0	45	100%	2003	44	38%	97%
1954	37	0	37	82%	1984	44	40%	97%
1955	14	0	14	31%	1965	43	41%	95%
1956	45	0	45	100%	1986	42	42%	92%
1957	28	0	28	62%	1968	42	43%	91%
1958	45	0	45	100%	1943	41	44%	91%
1959	23	0	23	51%	1999	41	46%	90%
1960	24	0	24	53%	1945	40	47%	88%
1961	14	0	14	30%	1980	40	48%	88%
1962	45	0	45	100%	1928	39	49%	85%
1963	45	0	45	100%	2002	38	51%	83%
1964	15	0	15	34%	1954	37	52%	82%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	43	0	43	95%	1997	36	53%	80%
1966	32	0	32	71%	1937	35	54%	76%
1967	45	0	45	100%	1948	34	56%	75%
1968	42	0	42	91%	1979	33	57%	74%
1969	45	0	45	100%	1966	32	58%	71%
1970	45	0	45	100%	1950	31	59%	68%
1971	45	0	45	100%	1923	30	60%	66%
1972	17	0	17	38%	1957	28	62%	62%
1973	45	0	45	100%	1981	28	63%	61%
1974	45	0	45	100%	1989	27	64%	60%
1975	45	0	45	100%	1985	26	65%	57%
1976	16	0	16	35%	1925	26	67%	57%
1977	5	0	5	11%	1960	24	68%	53%
1978	45	0	45	100%	1930	24	69%	52%
1979	33	0	33	74%	1959	23	70%	51%
1980	40	0	40	88%	1932	23	72%	51%
1981	28	0	28	61%	1926	23	73%	50%
1982	45	0	45	100%	1944	21	74%	47%
1983	45	0	45	100%	1972	17	75%	38%
1984	44	0	44	97%	1949	16	77%	36%
1985	26	0	26	57%	1994	16	78%	35%
1986	42	0	42	92%	1976	16	79%	35%
1987	11	0	11	24%	1934	15	80%	34%
1988	12	0	12	26%	1964	15	81%	34%
1989	27	0	27	60%	1955	14	83%	31%
1990	4	0	4	10%	1961	14	84%	30%
1991	7	0	7	16%	1939	14	85%	30%
1992	11	0	11	23%	2001	14	86%	30%
1993	45	0	45	100%	1933	12	88%	27%
1994	16	0	16	35%	1947	12	89%	27%
1995	45	0	45	100%	1988	12	90%	26%
1996	45	0	45	98%	1987	11	91%	24%
1997	36	0	36	80%	1992	11	93%	23%
1998	45	0	45	100%	1991	7	94%	16%
1999	41	0	41	90%	1931	6	95%	13%
2000	45	0	45	98%	1977	5	96%	11%
2001	14	0	14	30%	1990	4	98%	10%
2002	38	0	38	83%	1929	4	99%	8%
2003	44	0	44	97%	1924	2	100%	5%
Average	32	0	32	71%		32		71%
Maximum	45	0	45	100%		45		100%
Minimum	2	0	2	5%		2		5%

Table F.28. Santa Clara Valley WD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	94	0	94	94%	1982	100	0%	100%
1923	66	0	66	66%	1982	100	1%	100%
1924	5	0	5	5%	1952	98	2%	98%
1925	57	0	57	57%	1956	98	4%	98%
1926	50	0	50	50%	1956	98	5%	98%
1927	94	0	94	94%	1951	98	6%	98%
1928	85	0	85	85%	1970	98	7%	98%
1929	8	0	8	8%	1942	98	9%	98%
1930	66	0	66	66%	1938	98	10%	98%
1931	13	0	13	13%	1953	98	11%	98%
1932	51	0	51	51%	1941	97	12%	97%
1933	27	0	27	27%	1971	97	14%	97%
1934	34	0	34	34%	1946	97	15%	97%
1935	93	0	93	93%	1998	97	16%	97%
1936	94	0	94	94%	1995	97	17%	97%
1937	76	0	76	76%	1969	97	19%	97%
1938	98	0	98	98%	1984	97	20%	97%
1939	42	0	42	42%	1996	96	21%	96%
1940	94	0	94	94%	1967	96	22%	96%
1941	97	0	97	97%	1993	96	23%	96%
1942	98	0	98	98%	1973	96	25%	96%
1943	91	0	91	91%	1978	96	26%	96%
1944	47	0	47	47%	1965	95	27%	95%
1945	88	0	88	88%	1963	95	28%	95%
1946	97	0	97	97%	1980	95	30%	95%
1947	36	0	36	36%	1958	95	31%	95%
1948	75	0	75	75%	1975	94	32%	94%
1949	36	0	36	36%	1922	94	33%	94%
1950	68	0	68	68%	1927	94	35%	94%
1951	98	0	98	98%	1927	94	36%	94%
1952	98	0	98	98%	1936	94	37%	94%
1953	98	0	98	98%	2000	94	38%	94%
1954	82	0	82	82%	1935	93	40%	93%
1955	31	0	31	31%	1962	93	41%	93%
1956	98	0	98	98%	1986	92	42%	92%
1957	62	0	62	62%	1968	91	43%	91%
1958	95	0	95	95%	1943	91	44%	91%
1959	76	0	76	76%	2003	91	46%	91%
1960	53	0	53	53%	1999	90	47%	90%
1961	52	0	52	52%	1989	89	48%	89%
1962	93	0	93	93%	1945	88	49%	88%
1963	95	0	95	95%	1928	85	51%	85%
1964	34	0	34	34%	2002	83	52%	83%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	95	0	95	95%	1954	82	53%	82%
1966	71	0	71	71%	1997	80	54%	80%
1967	96	0	96	96%	1937	76	56%	76%
1968	91	0	91	91%	1959	76	57%	76%
1969	97	0	97	97%	1948	75	58%	75%
1970	98	0	98	98%	1979	74	59%	74%
1971	97	0	97	97%	1966	71	60%	71%
1972	38	0	38	38%	1950	68	62%	68%
1973	96	0	96	96%	1923	66	63%	66%
1974	98	0	98	98%	1930	66	64%	66%
1975	94	0	94	94%	1957	62	65%	62%
1976	35	0	35	35%	1981	61	67%	61%
1977	11	0	11	11%	1985	57	68%	57%
1978	96	0	96	96%	1925	57	69%	57%
1979	74	0	74	74%	1960	53	70%	53%
1980	95	0	95	95%	1961	52	72%	52%
1981	61	0	61	61%	1932	51	73%	51%
1982	100	0	100	100%	1926	50	74%	50%
1983	100	0	100	100%	1994	50	75%	50%
1984	97	0	97	97%	1944	47	77%	47%
1985	57	0	57	57%	1939	42	78%	42%
1986	92	0	92	92%	1972	38	79%	38%
1987	24	0	24	24%	1947	36	80%	36%
1988	26	0	26	26%	1949	36	81%	36%
1989	89	0	89	89%	1976	35	83%	35%
1990	22	0	22	22%	1934	34	84%	34%
1991	16	0	16	16%	1964	34	85%	34%
1992	23	0	23	23%	1955	31	86%	31%
1993	96	0	96	96%	2001	30	88%	30%
1994	50	0	50	50%	1933	27	89%	27%
1995	97	0	97	97%	1988	26	90%	26%
1996	96	0	96	96%	1987	24	91%	24%
1997	80	0	80	80%	1992	23	93%	23%
1998	97	0	97	97%	1990	22	94%	22%
1999	90	0	90	90%	1991	16	95%	16%
2000	94	0	94	94%	1931	13	96%	13%
2001	30	0	30	30%	1977	11	98%	11%
2002	83	0	83	83%	1929	8	99%	8%
2003	91	0	91	91%	1924	5	100%	5%
Average	71	0	71	71%		71		71%
Maximum	100	0	100	100%		100		100%
Minimum	5	0	5	5%		5		5%

Table F.29. Solano County WA: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	48	0	48	100%	1938	48	0%	100%
1923	40	0	40	84%	1938	48	1%	100%
1924	12	0	12	25%	1938	48	2%	100%
1925	23	0	23	48%	1938	48	4%	100%
1926	23	0	23	48%	1938	48	5%	100%
1927	44	0	44	93%	1938	48	6%	100%
1928	44	0	44	93%	1922	48	7%	100%
1929	12	0	12	25%	1922	48	9%	100%
1930	23	0	23	48%	1922	48	10%	100%
1931	12	0	12	25%	1922	48	11%	100%
1932	12	0	12	25%	1963	48	12%	100%
1933	12	0	12	25%	1963	48	14%	100%
1934	10	0	10	22%	1963	48	15%	100%
1935	23	0	23	48%	1963	48	16%	100%
1936	40	0	40	84%	1942	48	17%	100%
1937	23	0	23	48%	1942	48	19%	100%
1938	48	0	48	100%	1942	48	20%	100%
1939	40	0	40	84%	1942	48	21%	100%
1940	44	0	44	93%	1942	48	22%	100%
1941	48	0	48	100%	1942	48	23%	100%
1942	48	0	48	100%	1942	48	25%	100%
1943	48	0	48	100%	1942	48	26%	100%
1944	23	0	23	48%	1942	48	27%	100%
1945	40	0	40	84%	1942	48	28%	100%
1946	44	0	44	93%	1942	48	30%	100%
1947	23	0	23	48%	1942	48	31%	100%
1948	40	0	40	84%	1927	44	32%	93%
1949	23	0	23	48%	1927	44	33%	93%
1950	23	0	23	48%	1927	44	35%	93%
1951	44	0	44	93%	1927	44	36%	93%
1952	48	0	48	100%	1927	44	37%	93%
1953	48	0	48	100%	1927	44	38%	93%
1954	44	0	44	93%	1927	44	40%	93%
1955	23	0	23	48%	1927	44	41%	93%
1956	48	0	48	100%	1927	44	42%	93%
1957	44	0	44	93%	1940	44	43%	93%
1958	48	0	48	100%	1940	44	44%	93%
1959	40	0	40	84%	1940	44	46%	93%
1960	23	0	23	48%	2003	43	47%	91%
1961	23	0	23	48%	1923	40	48%	84%
1962	40	0	40	84%	1923	40	49%	84%
1963	48	0	48	100%	1923	40	51%	84%
1964	23	0	23	48%	1923	40	52%	84%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	48	0	48	100%	1923	40	53%	84%
1966	40	0	40	84%	1923	40	54%	84%
1967	48	0	48	100%	1923	40	56%	84%
1968	40	0	40	84%	1923	40	57%	84%
1969	48	0	48	100%	1923	40	58%	84%
1970	48	0	48	100%	1923	40	59%	84%
1971	48	0	48	100%	1923	40	60%	84%
1972	40	0	40	84%	1925	23	62%	48%
1973	44	0	44	93%	1925	23	63%	48%
1974	48	0	48	100%	1925	23	64%	48%
1975	48	0	48	100%	1925	23	65%	48%
1976	23	0	23	48%	1925	23	67%	48%
1977	12	0	12	25%	1925	23	68%	48%
1978	44	0	44	93%	1925	23	69%	48%
1979	23	0	23	48%	1925	23	70%	48%
1980	44	0	44	93%	1925	23	72%	48%
1981	23	0	23	48%	1925	23	73%	48%
1982	48	0	48	100%	1925	23	74%	48%
1983	48	0	48	100%	1925	23	75%	48%
1984	48	0	48	100%	1925	23	77%	48%
1985	40	0	40	84%	1925	23	78%	48%
1986	48	0	48	100%	1925	23	79%	48%
1987	23	0	23	48%	1925	23	80%	48%
1988	12	0	12	25%	1925	23	81%	48%
1989	23	0	23	48%	1937	23	83%	48%
1990	12	0	12	25%	1937	23	84%	48%
1991	12	0	12	25%	1937	23	85%	48%
1992	12	0	12	25%	1929	12	86%	25%
1993	44	0	44	93%	1929	12	88%	25%
1994	12	0	12	25%	1924	12	89%	25%
1995	48	0	48	100%	1924	12	90%	25%
1996	48	0	48	100%	1931	12	91%	25%
1997	48	0	48	100%	1931	12	93%	25%
1998	48	0	48	100%	1931	12	94%	25%
1999	48	0	48	100%	1931	12	95%	25%
2000	44	0	44	93%	1931	12	96%	25%
2001	23	0	23	48%	1931	12	98%	25%
2002	23	0	23	48%	1931	12	99%	25%
2003	43	0	43	91%	1934	10	100%	22%
Average	35	0	35	73%		35		73%
Maximum	48	0	48	100%		48		100%
Minimum	10	0	10	22%		10		22%

Table F.30. Tulare Lake Basin WSD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	89	0	89	100%	1951	89	0%	100%
1923	59	0	59	66%	1951	89	1%	100%
1924	4	0	4	5%	1951	89	2%	100%
1925	51	0	51	57%	1951	89	4%	100%
1926	44	0	44	50%	1951	89	5%	100%
1927	89	0	89	100%	1951	89	6%	100%
1928	76	0	76	85%	1922	89	7%	100%
1929	8	0	8	8%	1922	89	9%	100%
1930	42	0	42	47%	1922	89	10%	100%
1931	7	0	7	8%	1922	89	11%	100%
1932	45	0	45	51%	1922	89	12%	100%
1933	24	0	24	27%	1922	89	14%	100%
1934	30	0	30	34%	1922	89	15%	100%
1935	72	0	72	81%	1922	89	16%	100%
1936	83	0	83	93%	1922	89	17%	100%
1937	68	0	68	76%	1927	89	19%	100%
1938	89	0	89	100%	1927	89	20%	100%
1939	29	0	29	32%	1927	89	21%	100%
1940	89	0	89	100%	1927	89	22%	100%
1941	89	0	89	100%	1927	89	23%	100%
1942	89	0	89	100%	1927	89	25%	100%
1943	81	0	81	91%	1927	89	26%	100%
1944	42	0	42	47%	1927	89	27%	100%
1945	79	0	79	88%	1958	89	28%	100%
1946	89	0	89	100%	1958	89	30%	100%
1947	19	0	19	21%	1958	89	31%	100%
1948	67	0	67	75%	1996	87	32%	98%
1949	32	0	32	36%	2000	87	33%	98%
1950	60	0	60	68%	1984	86	35%	97%
1951	89	0	89	100%	1965	85	36%	95%
1952	89	0	89	100%	1936	83	37%	93%
1953	61	0	61	69%	1986	82	38%	92%
1954	73	0	73	82%	1968	81	40%	91%
1955	27	0	27	31%	1943	81	41%	91%
1956	89	0	89	100%	1999	80	42%	90%
1957	55	0	55	62%	2003	80	43%	90%
1958	89	0	89	100%	1945	79	44%	88%
1959	43	0	43	48%	1928	76	46%	85%
1960	47	0	47	53%	2002	74	47%	83%
1961	33	0	33	37%	1954	73	48%	82%
1962	89	0	89	100%	1935	72	49%	81%
1963	89	0	89	100%	1997	71	51%	80%
1964	30	0	30	34%	1980	71	52%	79%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	85	0	85	95%	1937	68	53%	76%
1966	63	0	63	71%	1948	67	54%	75%
1967	89	0	89	100%	1979	65	56%	74%
1968	81	0	81	91%	1966	63	57%	71%
1969	89	0	89	100%	1953	61	58%	69%
1970	89	0	89	100%	1950	60	59%	68%
1971	89	0	89	100%	1923	59	60%	66%
1972	34	0	34	38%	1957	55	62%	62%
1973	89	0	89	100%	1981	54	63%	61%
1974	89	0	89	100%	1925	51	64%	57%
1975	89	0	89	100%	1989	50	65%	56%
1976	31	0	31	35%	1960	47	67%	53%
1977	10	0	10	11%	1932	45	68%	51%
1978	89	0	89	100%	1926	44	69%	50%
1979	65	0	65	74%	1959	43	70%	48%
1980	71	0	71	79%	1930	42	72%	47%
1981	54	0	54	61%	1944	42	73%	47%
1982	89	0	89	100%	1972	34	74%	38%
1983	89	0	89	100%	1961	33	75%	37%
1984	86	0	86	97%	1994	32	77%	36%
1985	25	0	25	28%	1949	32	78%	36%
1986	82	0	82	92%	1976	31	79%	35%
1987	12	0	12	14%	1934	30	80%	34%
1988	16	0	16	18%	1964	30	81%	34%
1989	50	0	50	56%	1939	29	83%	32%
1990	11	0	11	13%	1955	27	84%	31%
1991	15	0	15	16%	2001	26	85%	30%
1992	12	0	12	14%	1985	25	86%	28%
1993	89	0	89	100%	1933	24	88%	27%
1994	32	0	32	36%	1947	19	89%	21%
1995	89	0	89	100%	1988	16	90%	18%
1996	87	0	87	98%	1991	15	91%	16%
1997	71	0	71	80%	1987	12	93%	14%
1998	89	0	89	100%	1992	12	94%	14%
1999	80	0	80	90%	1990	11	95%	13%
2000	87	0	87	98%	1977	10	96%	11%
2001	26	0	26	30%	1929	8	98%	8%
2002	74	0	74	83%	1931	7	99%	8%
2003	80	0	80	90%	1924	4	100%	5%
Average	61	0	61	69%		61		69%
Maximum	89	0	89	100%		89		100%
Minimum	4	0	4	5%		4		5%

Table F.31. Ventura County WPD: 2015 DCR Alt 4

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1922	19	0	19	93%	1942	20	0%	100%
1923	13	0	13	66%	1942	20	1%	100%
1924	1	0	1	5%	1942	20	2%	100%
1925	11	0	11	57%	1942	20	4%	100%
1926	10	0	10	50%	1942	20	5%	100%
1927	19	0	19	93%	1942	20	6%	100%
1928	15	0	15	75%	1941	20	7%	100%
1929	2	0	2	8%	1941	20	9%	100%
1930	13	0	13	66%	1941	20	10%	100%
1931	3	0	3	13%	1941	20	11%	100%
1932	10	0	10	51%	1938	20	12%	100%
1933	5	0	5	27%	1938	20	14%	100%
1934	7	0	7	34%	1938	20	15%	100%
1935	18	0	18	92%	1938	20	16%	100%
1936	19	0	19	93%	1984	19	17%	97%
1937	15	0	15	76%	1963	19	19%	96%
1938	20	0	20	100%	1951	19	20%	94%
1939	8	0	8	42%	1951	19	21%	94%
1940	18	0	18	88%	1970	19	22%	94%
1941	20	0	20	100%	1953	19	23%	94%
1942	20	0	20	100%	1946	19	25%	94%
1943	16	0	16	81%	1971	19	26%	94%
1944	9	0	9	47%	1922	19	27%	93%
1945	18	0	18	88%	1958	19	28%	93%
1946	19	0	19	94%	1927	19	30%	93%
1947	7	0	7	36%	1936	19	31%	93%
1948	15	0	15	75%	1962	19	32%	93%
1949	7	0	7	36%	1935	18	33%	92%
1950	14	0	14	68%	2003	18	35%	92%
1951	19	0	19	94%	1996	18	36%	92%
1952	20	0	20	100%	1968	18	37%	91%
1953	19	0	19	94%	2000	18	38%	91%
1954	16	0	16	82%	1980	18	40%	91%
1955	6	0	6	31%	1965	18	41%	90%
1956	19	0	19	94%	1945	18	42%	88%
1957	12	0	12	62%	1940	18	43%	88%
1958	19	0	19	93%	1975	18	44%	88%
1959	14	0	14	71%	2002	17	46%	83%
1960	11	0	11	53%	1989	16	47%	82%
1961	10	0	10	52%	1954	16	48%	82%
1962	19	0	19	93%	1986	16	49%	81%
1963	19	0	19	96%	1943	16	51%	81%
1964	7	0	7	34%	1997	16	52%	80%

SWP Table A Deliveries for 2015 Study					Probability Curve			
Year	Delivery w/o Article 56 Carryover (TAF)	Article 56 Carryover (TAF)	Total Table A Delivery (TAF)	Percent of Maximum Table A	Year	Total Table A Delivery (TAF)	Exceedence Frequency (%)	Percent of Maximum Table A
1965	18	0	18	90%	1937	15	53%	76%
1966	14	0	14	71%	1928	15	54%	75%
1967	20	0	20	100%	1948	15	56%	75%
1968	18	0	18	91%	1979	15	57%	74%
1969	20	0	20	100%	1966	14	58%	71%
1970	19	0	19	94%	1999	14	59%	71%
1971	19	0	19	94%	1959	14	60%	71%
1972	8	0	8	38%	1950	14	62%	68%
1973	20	0	20	100%	1923	13	63%	66%
1974	20	0	20	100%	1930	13	64%	66%
1975	18	0	18	88%	1957	12	65%	62%
1976	7	0	7	35%	1981	12	67%	61%
1977	2	0	2	11%	1985	11	68%	57%
1978	20	0	20	100%	1925	11	69%	57%
1979	15	0	15	74%	1960	11	70%	53%
1980	18	0	18	91%	1961	10	72%	52%
1981	12	0	12	61%	1932	10	73%	51%
1982	20	0	20	100%	1926	10	74%	50%
1983	20	0	20	100%	1994	10	75%	50%
1984	19	0	19	97%	1944	9	77%	47%
1985	11	0	11	57%	1939	8	78%	42%
1986	16	0	16	81%	1972	8	79%	38%
1987	5	0	5	24%	1947	7	80%	36%
1988	5	0	5	26%	1949	7	81%	36%
1989	16	0	16	82%	1976	7	83%	35%
1990	4	0	4	22%	1934	7	84%	34%
1991	3	0	3	16%	1964	7	85%	34%
1992	5	0	5	23%	1955	6	86%	31%
1993	20	0	20	100%	2001	6	88%	30%
1994	10	0	10	50%	1933	5	89%	27%
1995	20	0	20	100%	1988	5	90%	26%
1996	18	0	18	92%	1987	5	91%	24%
1997	16	0	16	80%	1992	5	93%	23%
1998	20	0	20	100%	1990	4	94%	22%
1999	14	0	14	71%	1991	3	95%	16%
2000	18	0	18	91%	1931	3	96%	13%
2001	6	0	6	30%	1977	2	98%	11%
2002	17	0	17	83%	1929	2	99%	8%
2003	18	0	18	92%	1924	1	100%	5%
Average	14	0	14	70%		14		70%
Maximum	20	0	20	100%		20		100%
Minimum	1	0	1	5%		1		5%