

NORTH COUNTY MULTIPLE SPECIES CONSERVATION PLAN STATUS REVIEW AND OPTIONS ASSESSMENT

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Acronyms and Abbreviations

BGEPA	Bald and Golden Eagle Protection Act
BMO	Biological Mitigation Ordinance
CAP	Climate Action Plan
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
Corps	United States Army Corps of Engineers
County	County of San Diego
DPR	Department of Parks and Recreation
DPW	Department of Public Works
EA	Environmental Assessment
EACCS	East Alameda County Conservation Strategy
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FRMP	Framework Resource Management Plan
GIS	Geographic Information System
HCPs	Habitat Conservation Plans
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HLP	Habitat Loss Permit
IA	Implementing Agreement
ITPs	incidental take permits
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
North County Plan	North County Multiple Species Conservation Plan
PACE	Purchase of Agricultural Conservation Easement
PAMA	Pre-Approved Mitigation Area
PDS	Planning & Development Services
RCA	Regional Conservation Authority
RMPs	Resource Management Plans
SDMMP	San Diego Management and Monitoring Program
South County Plan	Multiple Species Conservation Program County Subarea Plan
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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Chapter 1

Introduction and Purpose of Report

For the last 25 years, the County of San Diego (County) has been a national leader in the development and implementation of multi-species regional conservation plans that balance the conservation of endangered species with population growth and development. The County developed one of the first multi-species Habitat Conservation Plans (HCPs) in the country with the Multiple Species Conservation Program (MSCP 1998) and County of San Diego Subarea Plan (South County Plan) (County of San Diego 1998). The County has been implementing the South County Plan successfully for over 20 years. During this time, the County has been developing a similar conservation plan in the North County, called the North County Multiple Species Conservation Plan (North County Plan). The goal of the North County Plan is to bring many of the same environmental and economic benefits to North County as have been realized in the South County through the South County Plan.

Preparing a regional Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) like the North County Plan is a complex and lengthy effort involving consensus building with a number of local stakeholders and extensive negotiations with the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS; both agencies are referred to as the “Wildlife Agencies” throughout this report). The County has encountered a variety of challenges preparing the North County Plan, including competing priorities and changes to legislation and guidelines for the preparation of an HCP/NCCP.

To ensure that the desired benefits of the North County Plan can be realized and are worth the costs, and to consider other potential options, ICF has conducted a thorough status review and assessment of available options for County consideration. The primary purpose of this report is to identify and describe the main options available to the County to address compliance with laws protecting endangered species. If the County chooses to move forward with the North County Plan, this report also includes a status assessment of the current draft North County Plan and provides recommendations and strategies to complete a North County Plan that is sufficient to receive incidental take permits (ITPs) from both Wildlife Agencies for the species covered by the North County Plan. Completing a Revised North County Plan is one of the options considered and evaluated in this report.

1.1 Organization of this Report

This report is organized into three chapters.

Chapter 1, *Introduction and Purpose of Report*, defines the purpose of the report, provides background information on the North County Plan, and includes a description of the benefits desired by the County that were originally sought through the North County Plan. This chapter also summarizes the typical costs of an HCP/NCCP.

Chapter 2, *County Options*, describes and reviews five options available to the County to address endangered species compliance. For each option, the benefits and drawbacks are described, compared, and evaluated against the desired benefits identified in Chapter 1.

Chapter 3, *Evaluation of Current Plan and Recommendations*, provides a status review of the 2017 Preliminary Draft North County Plan. This chapter assesses the completeness, appropriateness of the level of detail, use of best available data, document organization, and if the North County Plan meets state and federal regulatory requirements. This chapter also includes ICF's recommendations for how to proceed with a Revised North County Plan if the County chooses this option.

1.2 Background on County Multiple Species Conservation Program

The County Multiple Species Conservation Program (MSCP) is a long-term, regional habitat conservation program focused on balancing protection of habitat with recreation, development and agricultural activities. Under the MSCP, large blocks of interconnected habitat are conserved through acquisition of land by private and public entities and used as mitigation for development. In return, the County receives long-term permits from the USFWS under the Endangered Species Act (ESA) and from the CDFW under the NCCP Act. These permits include regulatory assurances from the Wildlife Agencies that the terms of the conservation plan would not change in response to unforeseen changes in the environment or the status of the species covered by the plan. The County is then able to extend its permit coverage to public or private projects under its jurisdiction.

The County's MSCP comprises of three separate planning areas covering the unincorporated regions of San Diego (see Figure 1-1). The MSCP Plans associated with each of the planning areas are the South County Plan, draft North County Plan, and draft East County MSCP, respectively. Each MSCP Plan Area's unique geography requires that each MSCP Plan is tailored to meet the needs of the habitats and species in its respective area. The South County Plan was completed in 1998, and the County has been implementing it ever since (County of San Diego 1998). The North County Plan was initiated in 1998 following the completion of the South County Plan and completion of the North County Plan was included as a mitigation measure for the County's General Plan Update. Table 1-1 provides a timeline of the County activities to prepare the North County Plan.

The North County Plan Area encompasses approximately 316,000 acres, which includes over 120,000 acres of existing development and over 58,000 existing dwelling units. Recognizing current General Plan Land Use designations and known land use constraints (such as steep slopes and wetlands), the County anticipates 26,450 dwelling units may be developed within the North County Plan Area. Of these units, roughly 50% are anticipated to be constructed within Village designated areas, 40% within Semi-Rural designated areas, and 10% within Rural designated areas. The benefits and implications of the County's options to address endangered species compliance, and the resulting implications on the development of these private projects, are explored in Chapter 2 of this report.

Figure 1-1. County MSCP Boundaries

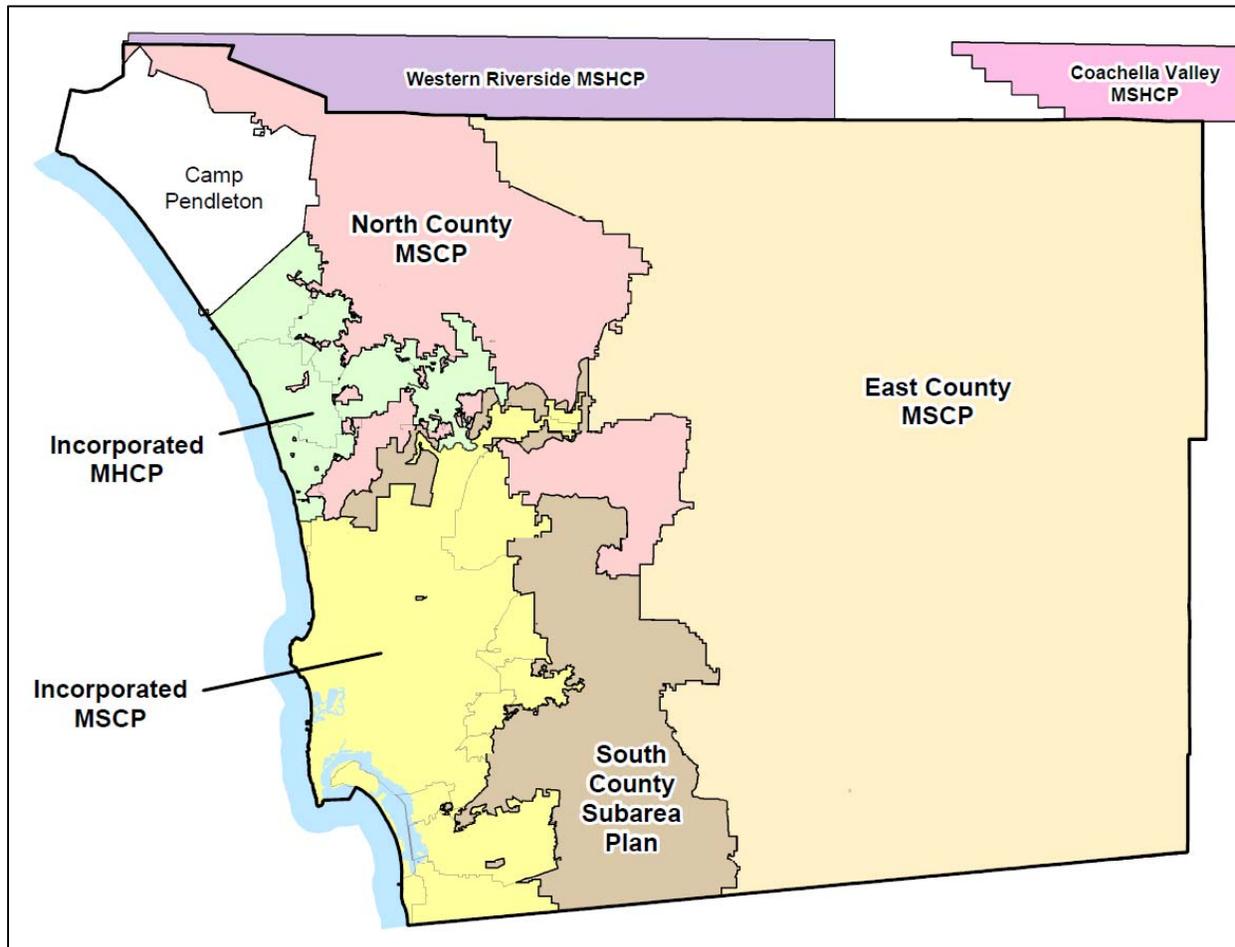


Table 1-1. Timeline of North County Plan Preparation

Timeframe	Activity
July 1996	County staff directed to develop the North County Plan
March 1998	Wildlife Agencies provided ITPs for South County Plan
1998–2001	County worked with Wildlife Agencies to prepare first draft of North County Plan
July 2001	Independent Science Advisors provided evaluation of North County Plan
February 2002	Second meeting of the Independent Science Advisors to review changes made based upon scientific input
2002–2008	Preparation of public draft of North County Plan
2003	The original NCCP Act was repealed and replaced with a significantly expanded NCCP Act that took effect January 1, 2003
February 2009	Working draft of North County Plan released to public comment
2009–2011	Work on North County Plan put on hold while County staff focused on General Plan Update

Timeframe	Activity
2011	County General Plan Update identified the preparation of the North County Plan and the East County MSCP as mitigation in the General Plan Environmental Impact Report
2012–2014	Work on North County Plan continued
September 2014	County provided revised working draft North County Plan to Wildlife Agencies
2014–2016	County worked internally and with Wildlife Agencies to revise covered species list from 63 to 29 species
December 2016	USFWS publishes the Habitat Conservation Planning and Incidental Take Permit Processing Handbook
March 2017	County provided revised working draft North County Plan to Wildlife Agencies
February–July 2017	County conducted stakeholder outreach and convened a Steering Committee for North County Plan
September 2017–Present	County and Wildlife Agencies hold regular meetings to discuss Wildlife Agency input, comments, and programmatic topics
February 2019–Present	ICF develops Plan options for County consideration and direction based on stakeholder, Steering Committee, and Wildlife Agency interviews and review of the 2017 Preliminary Draft North County Plan

1.3 Report Methods

The County selected ICF to prepare this report because of the firm’s experience in the preparation and implementation of regional HCPs and NCCPs in California. Brief biographies of each author are presented in Appendix A.

ICF conducted a status review of the North County Plan and its development process. Specifically, ICF authors began the project by thoroughly reviewing the November 2017 Preliminary Draft North County Plan and the comments provided by the Wildlife Agencies on this draft to date. This review focused on three primary questions:

1. Is adequate information presented to enable the Wildlife Agencies to make the permit issuance findings under the ESA and NCCP Act, respectively?
2. Is the County using the best available data, tools, and approaches in the North County Plan to ensure effective, efficient, and cost-effective implementation of the Plan?
3. Is the information presented clearly and concisely?

ICF also conducted a series of five meetings and interviews with County staff and management from Planning & Development Services (PDS) and Department of Parks and Recreation (DPR), who have been writing and negotiating the North County Plan and implementing the South County Plan. These meetings and interviews focused on: (1) identifying the issues that were impediments to progress on the North County Plan and (2) discussing potential solutions to these issues.

ICF authors also conducted three interviews with staff from the Wildlife Agencies who have been directly involved in the development and negotiation of the North County Plan over the last 19 years. These interviews also focused on the remaining issues with the North County Plan from the perspective of the Wildlife Agencies, and what they recommend be done to overcome those challenges.

ICF authors also conducted interviews with stakeholders to get their perspective on the importance of the North County Plan and on the planning process to date.

To gain a better understanding of the background and history of this project and to more accurately determine its status and options, ICF reviewed many documents provided by the County and located online, including:

- Latest Preliminary Draft North County Plan, including Wildlife Agency comments (November 2017)
- Earlier working draft of North County Plan, including Wildlife Agency comments (September 2014)
- Technical memos and various revisions to components of North County Plan (2018)
- North County Plan Deal Points analysis package (December 10, 2018)
- Administrative Draft of Framework Resource Management Plan (FRMP) (January 2018)
- North County Plan Principles and Issues (March 1, 2018)
- Stakeholder outreach summary and copies of stakeholder letters (2017 and 2018)
- Comparison of alternatives for Rancho Guejito (November 16, 2018)
- Planning Agreement (May 2014)
- Planning Agreement Extension Briefing Memo (March 7, 2019)
- Habitat Loss Permit (HLP) annual report (December 2018)
- HLP Ordinance (1994) and related analyses (March 22, 2018)
- California Gnatcatcher Listing Decision 4(d) Rule (December 1993)

Based on the review existing documents and discussions with the County, ICF identified a range of options that the County could pursue to address endangered species in North County and objectively reviewed the benefits and drawbacks of each option. If the County decides to pursue the North County Plan, ICF provided a set of recommendations for moving forward

1.4 Potential Benefits and Expected Costs of HCP/NCCPs

This section describes the potential benefits and expected costs of the North County Plan. Many of the benefits were ones that the County envisioned when they first began preparing the Plan, while others have emerged during the planning process. These benefits are described for two important reasons: (1) to explain why the County decided to pursue the North County Plan and why the County developed the South County Plan, and (2) to provide a baseline for comparing the available options to the County, including continuing to develop the North County Plan. In Chapter 2 of this report, each option is evaluated against each desired benefit.

These potential benefits and expected costs are based on actual benefits and costs seen in San Diego County from similar plans, as well as from similar HCP/NCCPs approved throughout California (Table 1-2). Many of these approved plans have been in implementation for 10 years or more,

providing a sufficient time period in which to demonstrate the actual benefits and costs that have been realized for local communities and jurisdictions. All of the example HCP/NCCPs are approved plans that were developed to provide take authorization for projects similar to those planned in the North County Plan (i.e., urban and rural development and related infrastructure, such as transportation projects, flood control projects, and other public works projects).

Table 1-2. Approved HCP/NCCPs in California Focused on Urban and Rural Development and Related Infrastructure

Approved HCP/NCCP	County	Plan Area (acres)	Year(s) Approved	Permit Term (years)
<i>Plans under original 1991 NCCP Act</i>				
Central/Coastal Orange County HCP/NCCP	Orange	208,000	1996	50
San Diego Multiple Species Conservation Program (MSCP) Subregional Plan ¹	San Diego	582,000	1996-2005	50
San Diego Multiple Habitat Conservation Program (MHCP) ²	San Diego	111,908	2004	50
Western Riverside Multiple Species Habitat Conservation Plan (MSHCP)	Riverside	1,200,000	2004	75
<i>Plans under revised 2003 NCCP Act</i>				
East Contra Costa County HCP/NCCP	Contra Costa	174,000	2007	30
Coachella Valley MSHCP	Riverside	1,100,000	2008	50
Santa Clara Valley Habitat Plan	Santa Clara	519,506	2013	50
Yolo HCP/NCCP	Yolo	653,663	2018	50

Notes:

¹ The San Diego MSCP Subregional Plan is an umbrella program over 11 subarea plans covering the southwestern portion of San Diego County. Five subarea plans have been approved, including the San Diego County (South County Plan) (1998), City of San Diego (1997), City of Poway (1996), City of La Mesa (1999), and City of Chula Vista (2005). The City of Santee submitted a draft subarea plan to the Wildlife Agencies in 2018.

² The San Diego MHCP is an umbrella program over six subarea plans covering the incorporated jurisdictions in the northern portion of San Diego County. To date, only one subarea plan has been completed in the City of Carlsbad (2004).

The NCCP Act was first approved in 1991, and the South County Plan was approved consistent with this original state law. In 2002, the original NCCP Act was repealed and replaced with a significantly expanded NCCP Act that took effect January 1, 2003. The new NCCP Act added many more regulatory requirements and several new planning steps, both of which made the planning process more complex and longer than with NCCPs under the 1991 law. For this reason, NCCPs approved after 2004¹ are more comparable to the North County Plan today. As shown in Table 1-2, there are four NCCPs that have been approved under the current NCCP Act. A fifth in Butte County, the Butte Regional Conservation Plan, is expected to be completed with permits issued in 2020.

¹ Several plans in process when the new NCCP Act was enacted in 2002 were grandfathered under the original 1991 law, including the Western Riverside County MSCP and the San Diego MHCP (both approved in 2004).

1.4.1 Potential Benefits of North County Plan

There are many potential benefits of HCP/NCCPs, all of which could be realized from preparation and implementation of the North County Plan. To understand the benefits in the proper context, it is important to contrast the benefits with the process and costs of ESA and California Endangered Species Act (CESA) compliance without an HCP/NCCP.

Without an HCP/NCCP, project proponents must seek their own state and federal permits from CDFW and USFWS, individually, when there is potential for “take” of a listed species. Some projects have the ability to obtain federal take authorization through Section 7 of the ESA because they have a federal nexus, such as a permit from the United States Army Corps of Engineers (Corps) for fill of jurisdictional wetlands or when there is federal funding (e.g., for large transportation projects)². The Section 7 consultation process, which does include the requirement for the preparation of a National Environmental Policy Acts (NEPA) compliance document, can be a relatively efficient and quick means of obtaining federal take authorization but in some cases it may still take years, especially for complex projects or projects with substantial impacts to listed species.

In other cases where no federal nexus exists, the project proponent must obtain an ITP through Section 10 of the ESA with an individual project HCP. In those cases, the USFWS must prepare a NEPA compliance document, either an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Each project proponent preparing an HCP is expected to pay for all consultant and legal costs related to preparing their HCP, negotiating with USFWS staff, and paying a consultant to prepare the NEPA document on USFWS’s behalf. These individual project HCPs often take several years to prepare, negotiate, and complete. As a result, the individual project HCP process is often costly and very time consuming. Project construction cannot begin until after the ITP is issued, sometimes causing substantial project delays and additional costs related to those delays.

To date, no individual project HCPs have been approved in the North County Plan Area, primarily because projects have been able to avoid impacts on endangered species and their habitats, obtain take authorization through Section 7 of the ESA, or, if only impacting coastal sage scrub (habitat for the coastal California gnatcatcher), obtain take authorization through the County HLP process. Note, the County HLP process only remains valid while the County is “actively engaged” in preparing an HCP/NCCP (see Section 2.1, *Project-by-Project ESA/CESA Compliance*, for further description of the County HLP).

The CESA permit process can be equally time consuming and expensive as the federal process, depending on the complexity of the project and the number of species for which take authorization is requested. A CESA permit under 2080.1 or 2081(b) of the California Fish & Game Code requires California Environmental Quality Act (CEQA) compliance and involves a different set of endangered species compliance standards.

In summary, the project-by-project ESA and CESA compliance process is often:

² The Section 7 consultation process is different from the Section 10 HCP process in a number of ways. Most importantly, the consultation process is between the federal agencies, with the project applicant providing information. The consultation ends with either: (1) a determination of no effect on listed species, (2) a biological assessment that concludes the project may affect but is not likely to adversely affect listed species, or (3) a biological assessment concludes that the project may affect and is likely to adversely affect listed species. In the last case, USFWS prepares a biological opinion for the federal agency consulting that provides incidental take authorization and describes required mitigation. An important difference between Section 7 and Section 10 is that the project proponent has far less control over the Section 7 process than preparing an HCP under Section 10.

- **Slow:** It typically takes multiple years to get through the ESA Section 7 consultation process or prepare an individual project HCP under Section 10, negotiate with USFWS, prepare USFWS's NEPA document (if required), and receive the project permit. The permit process with CDFW under CESA can be equally slow depending on the number of species covered by the state permit.
- **Expensive:** Preparing an individual project HCP or negotiating a complex Section 7 Biological Opinion, and obtaining a CESA permit is often expensive because of the consultants, attorneys, and project managers involved, and the time needed for negotiations with the Wildlife Agencies. If the negotiation causes project delays, this increases costs.
- **Unpredictable:** Each project negotiation is as unique as the circumstances of the project, and often differing requirements are imposed by different USFWS or CDFW staff. This makes it difficult for project proponents to predict and plan for mitigation costs.

The other element to consider in measuring the benefits of an HCP/NCCP is that the current ESA and CESA compliance process is not static. Over the course of the expected 50-year permit term of an HCP/NCCP such as the North County Plan, ESA and CESA compliance without the HCP/NCCP may become more difficult, more costly, and more time consuming. This has been the pattern of ESA and CESA compliance over the 30-year history of these laws. Based on the patterns of listed species and the laws protecting them in the past, we expect that the constraints posed by listed species will increase over time as several variables change:

1. The regulatory restrictions for listed species may increase (e.g., greater mitigation required).
2. The range of listed species will shift and possibly expand in response to the implementation of new recovery efforts.
3. The number of listed species will increase.
4. Continued development and habitat loss will reduce the mitigation opportunities over time.
5. Likely effects resulting from climate change will increase stress on sensitive species.

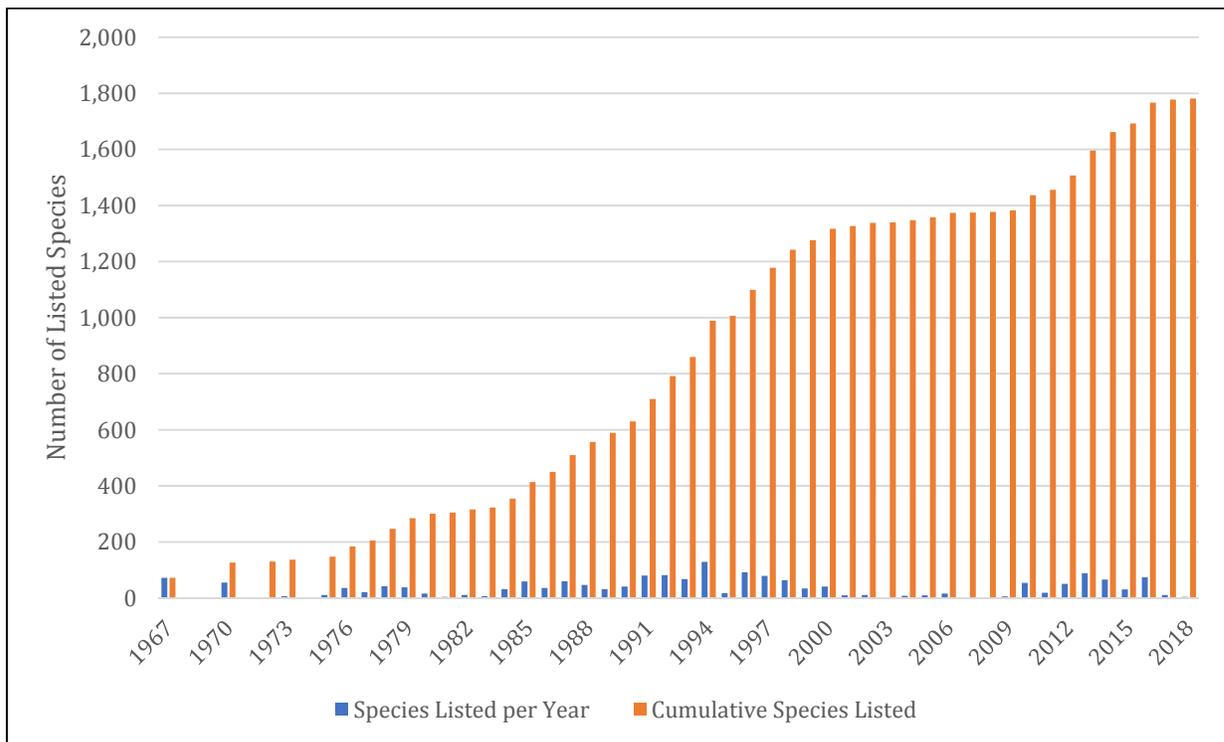
The largest regulatory impact from ESA changes in the future will come from new species listings. The timing of new species listings is difficult to predict but based on historic trends, it is expected that the number will increase. Over the last several decades, the number of new federal species listed has far exceeded the number of species removed from the list of threatened and endangered species. Figure 1-2 shows the pace of new federal listings annually and the cumulative number of listed species through 2018. Having a HCP/NCCP such as the North County Plan in place provides stability and predictability in the ESA and CESA permitting processes.

Other changes over time that are expected to increase regulatory burdens and project costs without an HCP/NCCP include:

- **Fewer ESA Section 7 Consultations.** The Corps has started restricting the jurisdiction of its federal consultations with USFWS to only their jurisdictional waters or wetlands. This is the result of a landmark court decision in 2016 regarding a proposed oil pipeline in the Midwest. If the Corps refuses to include upland species in their federal consultations, project proponents can only obtain take authorization for those upland species through an expensive and time-consuming individual project HCP.

- More Citizen Lawsuits.** The take prohibitions of Section 9 of the ESA are strict and come with serious penalties for violations. The ESA has provisions that allow citizens to sue parties and USFWS for non-compliance; we expect citizen lawsuits over ESA violations to increase over time without a regional compliance tool such as the North County Plan.

Figure 1-2. Listings Under the ESA by Year



Source: USFWS 2018. Created with data from “U.S. Federal Endangered and Threatened Species by Calendar Year.” *Environmental Conservation Online System*. Retrieved October 18, 2018, from <https://ecos.fws.gov/ecp0/reports/species-listings-count-by-year-report>.
 Notes: Includes Threatened and Endangered listings under the 1973 Endangered Species Act and its precursors (Endangered Species Preservation Act of 1966 and Endangered Species Conservation Act of 1969).

1.4.1.1 Economic Benefits

As described in the previous section, the economic benefits of any HCP/NCCP must be measured against the scenario without the HCP/NCCP. In other words, one must ask the question: how will the HCP/NCCP save time and cost in ESA and CESA permitting compared to an *increasingly costly and time-consuming process in the future*? Below is a list of the types of economic benefits HCP/NCCPs consistently provide to public infrastructure projects and private development projects, when compared to project-by-project permitting.

One of the biggest economic benefits of an HCP/NCCP is that the costs for HCP/NCCP implementation and ESA/CESA compliance are established with regulatory assurances that no additional costs (in dollars, land, or water) will be required. In contrast, ESA/CESA compliance costs without an HCP/NCCP will likely increase in the future (as described in previous section), relative to the economic benefits of an HCP/NCCP that provides regulatory certainties. In summary, HCP/NCCPs throughout California (Table 1-2) have consistently delivered the following benefits to local communities and jurisdictions:

1. **Reduce Project Mitigation Costs.** HCP/NCCPs are able to deliver mitigation that is often far less expensive than what project proponents negotiate project-by-project. This is for three important reasons.
 - First, HCP/NCCPs are regional in scope and therefore bring substantial economies of scale. HCP/NCCPs have the resources to acquire large blocks of land, which substantially reduces the per acre cost of land as compared to buying many smaller parcels of equivalent total size.
 - Second, because of the substantial environmental benefits that HCP/NCCPs provide, the Wildlife Agencies are willing to negotiate lower mitigation “ratios” than in a project mitigation situation because those lower ratios are offset by benefits that only HCP/NCCPs can provide, such as landscape connectivity, elevational gradients, climate change resiliency, large preserves, and guarantees of robust long-term management and monitoring.³
 - Finally, HCP/NCCPs bundle mitigation requirements for multiple species at once. This allows HCP/NCCPs to overlap mitigation more effectively and cost-efficiently than projects are able to on their own. In project-by-project mitigation, the Wildlife Agencies may account for mitigation species-by-species. HCP/NCCPs provide mitigation and conservation on a landscape scale, thereby accounting for species’ needs more efficiently.

The County has already realized some of this reduced mitigation benefit through the HLP Ordinance (see Section 2.1 for further description of the HLP process). The HLP allows for a limited amount of loss of coastal sage scrub, the primary habitat for the threatened coastal California gnatcatcher. The allowance for coastal sage scrub loss is 5% of the area present at the time of the 1993 rule—an allowable loss of 2,953 acres. Private development projects in the County have used this allowance extensively during the 19-year planning process for the North County Plan. As of December 2018, 1,297 acres (44%) of that allowance has been used. At least 26 pending projects are anticipated to use another 509 acres (17%) in the coming years (County of San Diego 2019a). Because the County has been actively engaged in preparing the North County Plan, local developers and County projects have been able to avoid preparing project HCPs or obtaining their own take authorization in other ways (e.g., Section 7 biological opinion). If a North County Plan is approved, this benefit would be replaced by the take authorization in the North County Plan, which would provide the added benefits described below.

2. **Reduce Project Survey Costs.** All projects with the potential to impact listed species and their habitats must conduct surveys and mapping to determine whether listed species’ habitat may be present on the site. If species’ habitat is present, additional surveys may be needed to determine whether species are present and their extent and use of the site. These project surveys for listed species can be expensive and are often changed if there is lapse or delay in the approval and construction of a project. Often, surveys must occur at specific times of year, which, if not planned carefully in advance, can delay projects. An HCP/NCCP can be established in a manner that removes the need for many of these species surveys, saving substantial project costs.⁴ Project applicants comply with the HCP/NCCP by conducting limited surveys for only certain covered species to help design and implement limited avoidance and minimization measures on

³ HCP/NCCPs often do not have mitigation ratios, but one can calculate an equivalent ratio based on the land acquisition targets of the plan.

⁴ It is assumed the North County Plan could be completed to establish project review procedures that have reduced project survey costs. The South County Plan does not fully realize this benefit, although some species surveys (e.g. coastal California gnatcatcher) methodologies allow for fewer field visits.

site. These HCP/NCCP surveys are far less costly and less time consuming than surveys without the HCP/NCCP.

3. **Ensure Faster Project Approvals.** One of the largest costs of project permitting under the ESA and CESA is the time involved in negotiating permits and mitigation with the Wildlife Agencies. With the HCP/NCCP in place, project proponents do not have to work with USFWS or CDFW, and they do not have to hire consultants, attorneys, or permit managers to do so on their behalf. Project proponents receive their ESA and CESA clearance from County planning staff at the local planning level. Instead of taking one or more years, this process will typically take a few months. This time savings translates into cost savings.
4. **Provide the Strongest Possible Regulatory Assurances from the Wildlife Agencies.** By completing an HCP/NCCP, the County will receive permits from the Wildlife Agencies that confer strong regulatory assurances. These assurances, called “No Surprises” by both agencies, say that those agencies will not come back within the 50-year permit term and request more money, land, or water if circumstances change beyond those already anticipated in the Plan. These assurances provide a guarantee to County agencies and all covered private and public projects that the obligations and costs in the Plan will not change, even if assumptions in the Plan turn out to be incorrect.⁵ These assurances extend to species not yet listed, providing an “insurance policy” against future listings for those species covered by the HCP/NCCP.
5. **Provide a Revenue Source for Landowners.** Once an HCP/NCCP is approved, the County will need to acquire from willing sellers thousands of acres of high-quality habitat for the covered species. This large need for conservation creates an opportunity for landowners to realize economic benefit from their land. Within the South County Plan Area, the County has invested \$44.5 million and leveraged an additional \$34.5 million to acquire 7,622 acres from willing sellers. As we have seen in other plans, landowners appreciate having another potential customer to buy their land or to place an easement on their land at a fair price. This is done at a cost to the County, as described below.
6. **Provide a Magnet for State and Federal Funds.** A large fraction of funding to implement the HCP/NCCP (typically 25–50%) will be from state and federal grants. The largest external funding source is the federal Cooperative Endangered Species Conservation Fund (HCP Land Acquisition Grants). Since 2002, these grants have provided over \$255 million in funding to all HCPs and NCCPs in California. The County has already demonstrated an outstanding record of receiving these competitive grants for the last 16 years: the South County Plan has received more land acquisition funding under this federal grant program than any other HCP in the country.⁶ Table 1-3 lists the federal grants each of the example plans have received to date. None of these funds will be available for use in Northern San Diego County without an HCP/NCCP. Currently the County is no longer applying for state and federal grants due to land use restrictions associated with the funding, but that could potentially change in the future should the restrictions change.

⁵ The exceptions to “No Surprises” assurances occur if a covered species is trending quickly towards extinction and the covered activities are contributing to that, or if the permittee is not implementing the HCP/NCCP properly. In either of those cases, the Wildlife Agencies have the ability to suspend or revoke the permit in whole or in part. However, this has never been done so far in the 37-year history of the HCP program.

⁶ To date the South County Plan has received \$59,978,592 (24% of all funding to California and 11% of all funding nationwide).

Table 1-3. Federal Funding for NCCP Land Acquisition in California (2002–2018)

Plan	Total Federal Grant Funding to Date	Time Period¹
South County Plan	\$60.0 million	2002–2017 (16 years)
Western Riverside MSHCP	\$58.2 million	2002–2017 (16 years)
East Contra Costa County HCP/NCCP	\$39.4 million	2006–2017 (12 years)
Coachella Valley MSHCP	\$26.5 million	2006–2017 (12 years)
San Diego MHCP ²	\$21.5 million	2004–2017 (14 years)
City of San Diego MSCP	\$19.0 million	2002–2017 (16 years)
Central/Coastal Orange County HCP/NCCP	\$8.1 million	2004–2017 (14 years)
Santa Clara Valley Habitat Plan	\$6.0 million	2014–2017 (4 years)
City of Poway MSCP	\$2.0 million	2017 (1 year)
Total	\$240.7 million	

¹ 2017 was the latest grant year; there were no grant awards in 2018 for Fiscal Year 2018–2019.

² Includes separate funding to the City of Carlsbad MSCP (\$6.0 million).

7. **Provide a Revenue Source for Local Restoration Businesses and Local Landowners.** The state and federal grant funding typically pays for land acquisition and the construction costs of restoration projects. These funds go to pay fair market value to landowners interested in selling their lands (in fee title or conservation easements) or to related services such as appraisers and title companies involved in land transactions. Grants that fund restoration projects also support local businesses, such as construction companies and landscape architects.

8. **Realize the Return on the Investment Already Made.** The County has already invested substantial time and money to develop the North County Plan as an HCP/NCCP and prepare the 2017 Preliminary Draft North County Plan. County staff and their consultants have been working on and off on this project for almost 19 years. The County has received approximately \$1.8 million in federal HCP planning assistance grants (from 1997 to 2006) to support the North County Plan effort. Additional planning costs to date have been paid from local sources such as the County General Fund. The Wildlife Agencies have made similar investments of time and effort to attend and provide advice at countless meetings over the years. The County has also invested substantial local funds to acquire open space as the foundation for the North County Plan Preserve System. Since 2001, the County has spent \$100 million (\$50 million County funds, plus \$50 million in other funding) to acquire 6,911 acres of open space within the North County Plan Area. Even without the North County Plan these lands will benefit the County (e.g., providing open space and a potential location for recreational uses), but only with the North County Plan can these lands help secure strong regulatory assurances from the Wildlife Agencies under the ESA and NCCP Act.

The specific economic benefits of an HCP/NCCP are difficult to estimate for private projects because developers rarely report the costs of their projects without the HCP/NCCP. The cost savings to public projects can be easier to estimate because actual costs are more transparent.

While the County has not quantified the mitigation or other project permitting costs of public projects with and without the South County Plan, there are relevant examples in California that provide indications of the potential economic benefits of the North County Plan. For instance, the Western Riverside MSHCP, approved in 2004, has provided substantial economic benefits to

regional transportation projects. As of March 2019, the implementing entity of the plan, the Western Riverside County Regional Conservation Authority (RCA), has compiled the following economic benefits of their plan to transportation projects, based in part on a comprehensive cost-benefit study prepared in 2008 by the Rand Corporation (Dixon et al. 2008) and 15 years of plan implementation:

- The Western Riverside County MSHCP has accelerated \$4 billion in transportation projects by 1 to 5 years or more. This includes a new rail line, two new freeways, five major freeway widening projects, a dozen freeway and highway interchange projects, a major dam rehabilitation, a new Metrolink line, major water projects, and major regional power transmission lines.
- The Western Riverside County RCA estimates \$312 million savings in transportation costs due to early delivery.⁷
- Every transportation project proposed in the Plan Area has been built; none have been stopped or stalled due to ESA or CESA issues. With the MSHCP in place, ESA compliance no longer impedes the path of project environmental compliance.
- Projects with an ESA Section 7 consultation average receiving their Biological Opinions from USFWS in 2 months, versus over 2 years without the MSHCP.

1.4.1.2 Environmental Benefits

A regional HCP/NCCP provides substantial environmental benefits, both to listed or rare species, and to natural communities in general. The NCCP Act requires that NCCPs go beyond strict mitigation requirements and provide for the conservation (above and beyond straight mitigation) of the covered species in the NCCP Plan Area. In practical terms, this means that NCCPs must contribute to the recovery of the covered species already listed or help prevent the listing of covered species not yet listed. NCCPs achieve this higher standard in a variety of ways, most of which are supported by the regional scale of conservation provided by implementation of the NCCP. By definition, NCCPs are conservation planning tools that deliver mitigation and conservation on a large scale and in a coordinated fashion that is impossible or very difficult to achieve through a project-by-project approach.

The Wildlife Agencies have historically prioritized their staff's time to work on and help complete NCCPs and regional HCPs because they consider the environmental benefits superior when compared to project-by-project ESA and CESA compliance. In summary, HCP/NCCPs provide a suite of environmental benefits that include:

1. **Protect Large Blocks of Species' Habitat.** Because of their scale, HCP/NCCPs are uniquely able to conserve large blocks of habitat for covered species. In turn, this increases the chance of protecting viable populations because more of their habitat is protected. Larger blocks of habitat are also more resilient to the effects of climate change and other threats.
2. **Protect Landscape Linkages and Wildlife Corridors.** A central goal of NCCPs is to protect and connect patches of covered species habitat by linking them with corridors or other physical connections. Landscape connectivity is important to many covered species, and also improves population resiliency in the face of climate change and other threats. In the case of the North County Plan, landscape linkages can be made both within and outside the plan boundary

⁷ Based on the National Highway Construction Cost Index Average of 3.9% per year and an average time savings per project of 2 years.

because the North County Plan is adjacent to several other blocks of natural open space (e.g., the South County Plan, Camp Pendleton, Western Riverside MSHCP, and San Diego MHCP).

3. **Improved and Consistent Long-Term Management and Monitoring.** An important benefit of HCP/NCCPs is that they provide guarantees of high-quality management and monitoring of protected lands focused on covered species and their habitats. These guarantees come in the form of endowments created to pay for management and monitoring in perpetuity, and commitments to maintain and often enhance habitat for the covered species.

1.4.1.3 Community and Other Benefits

An HCP/NCCP, and specifically the North County Plan as an HCP/NCCP, has other tangible benefits to the County that are not directly economic or environmental. These other benefits include:

1. **Transfers Decision Making Over Endangered Species to the Local Level.** Without an HCP/NCCP, project proponents must negotiate permits with the Wildlife Agencies on their own, and often with each agency separately. With an HCP/NCCP, all covered activities receive take authorization under the ESA and CESA through the local development approval process. Project proponents do not have to seek approvals from USFWS or CDFW staff, and instead interact only with County planning staff regarding their endangered species obligations under the Plan. Even though the Wildlife Agencies can provide comments through the CEQA process, this approach, which is already in place for the South County Plan, which brings regulation of endangered species covered by the South County Plan under local control.
2. **Streamlines Federal and State Wetlands Permitting.** An approved HCP/NCCP streamlines wetland permitting, both at the federal and state levels. Any applicant who seeks a permit from the Corps for dredge or fill of waters of the United States under the Clean Water Act Section 404 will benefit from the North County Plan. As part of that application process the Corps will have to consult with USFWS about the risk of adverse effects on listed species. Any project proponent covered by the North County Plan will have already addressed all listed species covered in the North County Plan. Therefore, the consultation process between the Corps and USFWS will be greatly streamlined. In these cases, the federal biological opinion issued to the Corps might only be a few pages long because all it has to do is reference the North County Plan.

Similar streamlining may also apply to waters of the State under the Porter-Cologne Water Quality Control Act. In a 2019 version of new state regulations (SWRCB 2019), the State Water Quality Control Board (SWRCB) allows HCPs and NCCPs to be approved as a “watershed plan.” If the North County Plan is approved by the SWRCB as a watershed plan⁸, all permit applicants within it will no longer be required to conduct an alternatives analysis as part of their permit application for dredge or fill of state waters. This could provide substantial streamlining.

3. **Fulfills Goals and Policies of the County General Plan.** Chapter 5 of the County General Plan (Conservation and Open Space Element) lists three goals that would be supported by the North County Plan being completed, adopted, and implemented:
 - **Goal COS-1: Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County

⁸ Since this is part of newly promulgated regulations, further guidance from CDFW is forthcoming of how an HCP/NCCP can appropriately function as a watershed plan. At a minimum, it is anticipated that the HCP/NCCP will need to indicate where preservation and enhancement of aquatic resource should be prioritized.

- **Goal COS-2: Sustainability of the Natural Environment.** Sustainable ecosystems with long-term viability to maintain natural processes, sensitive lands, and sensitive as well as common species, coupled with sustainable growth and development.
- **Goal COS-3: Protected and Enhancement of Wetlands.** Wetlands that are restored and enhanced and protected from adverse impacts.

While the County has a few other tools to encourage the sustainability of the natural environment and to protect wetlands, the County's MSCPs are the only interconnected preserve systems it is currently working towards assembling.

In addition, implementation of the North County Plan will result in co-benefits of other General Plan goals and policies related to increases in open space, recreational opportunities, and protection of aesthetic values. The conservation and preservation of natural habitat associated with the North County Plan will help to maintain the rural community character of the North County Plan Area, consistent with the General Plan land use goals and policies.

4. **Fulfills Mitigation Requirements of County General Plan Update Environmental Impact Report (EIR).** The EIR for the County General Plan Update (County of San Diego 2011a) identified potentially significant impacts from implementing the General Plan to four biological resource issues: special-status species, riparian and other sensitive natural communities, federally protected wetlands, and wildlife movement corridors. The County committed to the following mitigation measure to reduce the level of impacts on a regional level to all four of these biological resource issues:
 - **BIO-1.2:** Implement and revise existing Habitat Conservation Plans/Policies to preserve sensitive resources within a cohesive system of open space. In addition, continue preparation of MSCP Plans for North County and East County.
 - **CC-1.10:** Continue to Implement the County Groundwater Ordinance, Watershed Protection Ordinance (WPO), Resource Protection Ordinance (RPO), MSCP and prepare MSCP Plans for North and East County in order to further preserve wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits and to restrict the use of water for cleaning outdoor surfaces and vehicles.
5. **Fulfills County Commitment to Regional HCP/NCCP Process.** The County has been an active participant in and supporter of the MSCP process since the beginning of the program in the early 1990s. The MSCP Subregional Plan and associated Subarea Plans were a landmark accomplishment of the use of Section 10 for regional HCPs and for the fledgling NCCP Act, and the County has been an essential partner in the MSCP development and implementation from the start. Over the years the County has supported the HCP/NCCP process, and the County General Plan clearly reflects the expectation of an ongoing commitment to the process (see number 3, above).
6. **Simplifies CEQA Compliance for Projects within the Plan Area.** The North County Plan will fulfill all CEQA and NEPA requirements for the species covered by the North County Plan because the standards of the Plan exceed those of CEQA and NEPA. Because the North County Plan will result in substantial protection of habitat for a wide range of species (not just those covered by the permits), the Plan is also likely to satisfy CEQA mitigation requirements for all or most other special-status species projects encountered in the North County Plan Area. This will

provide a regulatory benefit (and possible additional cost savings) to projects covered by the North County Plan.

7. **Supports Other County Initiatives.** The North County Plan will support other County initiatives, including:
 - **2018 Climate Action Plan (CAP).** The County CAP (County of San Diego 2018a) lists acquiring specific targets of open space conservation lands as a key greenhouse gas reduction measure (T-1.1). The primary tool to achieve this is listed as implementation of the South County Plan “and future additional conservation efforts.”
 - **Purchase of Agricultural Conservation Easement (PACE) Program:** Some species covered by the North County Plan coexist and thrive in managed agriculture situations. Acquisition of easements on agricultural lands that support the biological goals and objectives of the North County Plan may also promote the long-term preservation of agriculture in San Diego County and support the long-term goals of the County’s PACE Program (County of San Diego 2014).
 - **Municipal Separate Storm Sewer System (MS4) Alternative Compliance:** The County has recently completed the *County of San Diego BMP Design Manual* (County of San Diego 2019b), which provides guidance for land development and public improvement projects to comply with the 2013 MS4 Permit. Alternative (offsite) compliance approaches are identified as a potential option to satisfy pollutant control or hydromodification management performance standards. There is the potential that in certain circumstances, MS4 alternative compliance could be co-located within or adjacent to the North County Plan Preserve such that the North County Plan could support and benefit compliance with the County’s MS4 permit.

1.4.2 Costs to Implement HCP/NCCPs

To evaluate the costs to implement HCP/NCCPs, it is informative to compare the preliminary cost estimates to implement the North County Plan with other comparable HCP/NCCPs. The cost to implement the North County Plan will be determined based on final negotiations with the Wildlife Agencies over the cost components of the Plan. The largest shares of costs are expected to be land acquisition (55–60% of total cost), preserve management (20–25% of total cost), and the level of monitoring and adaptive management (about 10% of total cost). Although final plan costs have yet to be determined, the 2017 Preliminary Draft North County Plan provides an indication of what final plan costs might be: total plan costs were estimated to be between \$14.1 million and \$16.1 million per year for the 50-year permit term. Using the midpoint of land acquisition costs, total plan costs were estimated to be \$756 million over 50 years. Assuming 22,859 acres of private development covered by the Plan, this equates to a per developed acre cost of \$33,071. These estimated costs are similar to total, annual, and per acre of development costs of other comparable HCP/NCCPs in California for which cost data is available (Table 1-4).

Table 1-4. HCP/NCCP Implementation Costs for Comparable Plans with Available Data

Plan	Total Cost³	Calculated Dollar Year	Cost in 2016 Dollars (rounded)	Permit Term (years)	Allowable Developed Area (acres)⁴	Cost Per Acre Developed	Cost Per Year of Permit
East Contra Costa County HCP/NCCP	\$350,040,000	2005	\$431 million	30	13,029	\$33,104	\$14.4 million
Santa Clara Valley Habitat Plan	\$564,040,000	2010	\$620 million	50	25,864	\$23,991	\$12.4 million
Butte Regional Conservation Plan ¹	\$377,051,648	2011	\$404 million	50	24,624	\$16,411	\$8.0 million
Placer County Conservation Plan ²	\$956,576,000	2015	\$956 million	50	30,100	\$31,780	\$19.1 million
Yolo HCP/NCCP ¹	\$353,995,000	2014	\$359 million	50	13,027	\$27,569	\$7.1 million
Coachella Valley MSHCP	\$1,171,213,000	2007	\$1,355 million	75	152,600	\$8,879	\$18.0 million
					Avg	\$23,622	\$13.1 million
					Std Dev	±\$9,397	±5.0 million
<i>Compared to:</i>							
North County Plan (2017 Preliminary Draft)	\$755,964,000	2015	\$756 million	50	36,670	\$20,616	\$15.1 million

¹ Public Draft HCP/NCCP.

² 2nd Administrative Draft HCP/NCCP.

³ Excludes endowment costs. For the North County Plan, the midpoint was used for the range of land acquisition costs estimated.

⁴ Allowable loss of natural communities that provide habitat for one or more of the covered species.

The following describes the types of costs to be incurred by the County to implement the North County Plan as an HCP/NCCP:

1. **Costs to Mitigate County Projects.** The County will have public projects that would be covered by the North County Plan over the 50-year permit term. The County's Capital Program typically funds Capital Improvement Projects such as new roads, road widening, new recreational facilities, and other public infrastructure. This Capital Program would also fund land acquisition to mitigate the impacts of those Capital Improvement Projects. The County could have project mitigation costs with or without the North County Plan, but the per-acre mitigation costs with the North County Plan are expected to be substantially lower than without it. No additional costs are forecast for public project mitigation with the North County Plan.
2. **Costs to Acquire the Preserve System.** The 2017 Preliminary Draft North County Plan commits to a Preserve System of 102,930 acres.⁹ Of that, 29,586 acres (29%) has already been acquired or dedicated. Another 20,860 acres (34%) would come from land acquired by land conservancies or public agencies, including the County (remaining acquisition would come from development set-asides or offsite mitigation as part of the development review process). Funding for the public agency acquisition would come from a variety of local, state, and federal funding sources including state bonds (e.g., Propositions 1 and 84) and federal grants (e.g., Cooperative Endangered Species Conservation Fund). Therefore, only some of the funding for land acquisition would come from County general fund sources.

Since 2001, the County has acquired a total of 6,911 acres of open space within the North County Plan Area that could potentially be used as part of the County's obligation towards assembly of the Preserve System and serve as mitigation credits (for approximately 1,382 acres of habitat impacts assuming an average mitigation ratio of 2.5 and half of the open space acquired were through other funding sources that cannot be used for mitigation credits). These acres have been acquired with approximately \$50 million in General Fund money, and, with that local commitment of funding, the County was able to leverage another \$50 million in state and federal grants and other sources. If the share of funding to complete the County's obligation for assembly of the Preserve System continues to be split 50/50 between the County General Fund and other funding sources, we estimate that the County would spend approximately \$99 million over 50 years (average of \$2.0 million per year) to acquire the remaining Preserve System under a Revised North County Plan¹⁰ (see Appendix B, Table B-1 for assumptions and calculations).

3. **Costs to Manage and Monitor the Preserve System.** As described in the 2017 Preliminary Draft North County Plan, the County General Fund will be used to manage and monitor County-owned preserve lands. This includes both ongoing costs and one-time costs for baseline inventories and preparing Resource Management Plans at the time of acquisition. The 2017 Preliminary Draft North County Plan estimates the funding to manage and monitor existing and future publicly held and land conservancy preserves at \$282 million over 50 years, or an average of \$5.6 million per year. A portion of this will be County-owned preserves that will have the funding for management and monitoring expected to come from the County General Fund.

⁹ It is anticipated the size of the Preserve System will change with subsequent revisions of the North County Plan, but these numbers from the 2017 Preliminary Draft North County Plan indicate the general level of commitments required from different entities to build out a Preserve System.

¹⁰ This estimate assumes that the County would acquire another 4,420 acres to buildout the Preserve System under the Revised North County Plan option at an average cost (in 2018 dollars) of \$22,366 per acre, which includes land transaction costs.

4. **Costs to Administer the North County Plan.** The County will incur administrative costs to oversee and ensure successful implementation of the North County Plan, just as they do now for the South County Plan. These administrative costs include staff salaries, benefits, and other overhead costs. The 2017 Preliminary Draft North County Plan estimated these costs at \$250,000 per year (in 2015 dollars). Based on ICF's experience implementing other NCCPs in California and the expectation that the North County Plan will need to have a larger role for the County for preserve system oversight than currently done for the South County Plan, this is an underestimate. Final administrative costs for the North County Plan are likely to be closer to \$600,000 per year (in 2018 dollars). In the South County Plan, the County pays for all administrative costs through its General Fund. In most other NCCPs in California, similar administrative costs are paid for by an HCP/NCCP fee levied on all projects covered by the plan. The 2017 Preliminary Draft North County Plan proposed that the County continue to pay for administrative costs through its General Fund, which would cost the County approximately \$600,000 per year. However, the County has the option to charge fees on all covered activities (private and public) and cover all or most of these administrative costs.
5. **Costs to Manage and Monitor the Preserve System in Perpetuity.** The ITPs authorize mostly permanent impacts on habitat for the covered species. In return, the County is establishing a permanent Preserve System to offset those permanent impacts. Most HCP/NCCPs approved today include a provision to build a permanent endowment during the permit term that grows to a size that will generate sufficient interest to pay for all management and monitoring after the permit term. Often these endowments are built using a portion of development fees that are set aside into an endowment account. The 2017 Preliminary Draft North County Plan does not include a provision for a permanent endowment for land managed and monitored by the County (developers are required to establish endowments for their own set-asides). Therefore, there is no funding identified to pay for long-term management and monitoring (i.e., after permits expire and in perpetuity) for County-owned and managed lands. Although the County did not establish a permanent endowment for the South County Plan, they should consider doing so for the North County Plan because of more recent regulatory standards for funding assurances.

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Chapter 2 County Options

Based on discussions with the County, five options have been identified for the North County Plan. These options are:

1. Project-by-Project ESA/CESA Compliance
2. Prepare a Conservation Strategy – No Covered Public or Private Activities
3. Prepare an HCP/2081 (no NCCP) – County Covered Activities Only
4. Prepare an HCP/2081 (no NCCP) – Public and Private Covered Activities
5. Revise the current draft North County Plan to complete as an HCP/NCCP

During discussions with the County, a variety of other options were considered including a North County Plan with and without Rancho Guejito (a large private ranch located on the eastern edge of the proposed North County Plan Area) and a North County Plan with fewer covered species. These options and others are variations on completing a revised version of the 2017 Preliminary Draft North County Plan, and the components are not mutually exclusive and therefore can be combined. Rather than evaluating the benefits and drawbacks of each of these variations, it is recommended that if the County proceeds with an HCP of any kind (Revised North County Plan or HCP/2081 options), it select the scale and scope of the HCP that best fits the needs of the County.

The Revised North County Plan option assumes that the current North County Plan document will be revised based on the recommendations described in Chapter 3. In addition, there are procedural and administrative changes recommended that the County should consider in order to complete the North County Plan as an HCP/NCCP, meeting permit issuance criteria under the ESA and NCCP Act.

Table 2-1 provides a summary chart of the overall cost and risk implications for each option. Table 2-2 summarizes the degree to which each option would realize the potential benefits of an HCP/NCCP as described in Section 1.4, *Potential Benefits and Expected Costs of HCP/NCCPs*. The table compares each option relative to the baseline condition described in Section 1.4 of a more challenging regulatory environment for endangered species over time. These five options are described in detail in this chapter to define the specific benefits and drawbacks associated with each.

Each option is considered relative to the cost and time to complete the Plan preparation and full implementation. Table 2-3 presents a summary chart of the approximate ranges of estimated costs for consultants (not County staff) and the time needed to complete Plan preparation and associated environmental documents (CEQA and/or NEPA) of each option.

Table 2-1. Overview of Costs and Risks of County Options

	Project-by-Project ESA/CESA	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan
<i>Overview of Costs and Risks</i>					
Lower costs to complete plan preparation	●	●	●	●	○
Less time for plan preparation	●	●	●	●	○
Certainty plan can be completed	●	●	●	●	●
Take coverage received for County projects	○	○	●	●	●
Take coverage received for private projects	○	○	○	●	●
County funds not used for additional conservation ²	●	●	●	●	○
Lower per acre management & monitoring costs ³	●	●	●	●	●
Lower County costs to administer plan	●	●	●	●	○
Lowest total cost to County General Fund	●	●	●	○	●
Lowest total cost to private developers	○	●	○	●	●

¹ Legend: ● = fully consistent with statement; ● = mostly consistent; ● = partially consistent; ● = somewhat consistent; ○ = not consistent with statement.

² An HCP/NCCP requires more conservation be provided above and beyond just mitigation.

³ See Appendix B for estimates of management and monitoring costs per acre. Revised North County Plan based on current average annual management and monitoring cost per acre. Other options are higher due to the lower efficiency managing and monitoring a smaller preserve system. HCP/2081 (Public-Private) applies discounted premium because no natural community monitoring is required (no NCCP), and larger preserve size allows for more efficient management and monitoring.

Table 2-2. Summary of Potential Benefits of County Options

	Project-by-Project ESA/CESA	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan
<i>Economic Benefits</i>					
Reduce project mitigation costs	○	◐	◑	◑	●
Reduce project survey requirements	○	○	○	○	◐
Ensure faster project review	○	◐	◑	◑	●
Attract grant funding for implementation	○	◐	◑	◑	●
Return on investment already made	◐	◑	◑	◑	●
<i>Environmental Benefits</i>					
Protect large blocks of habitat	◐	◑	◑	◑	●
Protect landscape corridors and wildlife movement	◐	◑	◑	◑	●
Improve long-term management and monitoring	◐	◑	◑	◑	●
<i>Policy, Regulatory, and Other Benefits</i>					
ESA decision making transferred to local level	○	○	◑	◑	●
Federal regulatory assurances	○	○	◑	◑	●
State regulatory assurances	○	○	◑	◑	●
Establishes more favorable mitigation ratios	○	○	◑	◑	●
Take exemptions for coastal sage scrub loss remain in place	○	○	○	○	●
Priority agency attention through batching meetings	○	○	○	○	●
Potentially streamlines wetlands permitting	○	◐	◑	◑	●
Fulfills goals and policies of General Plan	◐	◐	◑	◑	●
Fulfills mitigation requirement of General Plan Update EIR	◐	◐	◑	◑	●
Progress towards a countywide HCP/NCCP program	○	○	○	○	●
Simplifies CEQA compliance for County projects	○	◐	◑	◑	●
Simplifies CEQA compliance for private projects	○	◐	◑	◑	●
<i>Provides Efficiencies For Other County Initiatives</i>					
2018 CAP	◐	◐	◑	◑	●
PACE Program	◐	◐	◑	◑	●
MS4 Alternative Compliance	◐	◐	◑	◑	◐

¹ Legend: ● = fully achieves potential benefit; ◑ = mostly achieves potential benefit; ◐ = partially achieves potential benefit; ◒ = somewhat achieves potential benefit; ○ = no contribution to potential benefit or makes condition worse.

Table 2-3. Costs and Time Comparison for Plan Preparation of County Options

	Project-by-Project ESA/CESA	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan
Consultant Costs to Complete¹:					
Conservation Plan	\$0	\$250-\$500K	\$400-\$600K	\$600-\$800K	\$700K-\$1.0M
Environmental Document	\$100-\$300K ²	\$200-\$500K ²	\$500-\$900K ²	\$500-\$900K ²	\$600-\$800K
Total	\$100-\$300K	\$450-\$1.0M	\$900-\$1.5M	\$1.1M-\$1.7M	\$1.3M-\$1.8M
Time to Complete (months):	N/A	12-16	16-24	24-30	24-30

¹ Costs are rough cost estimates that should fall within the ranges listed but will depend on project specific scopes of work.

² Includes CEQA compliance costs for a General Plan Amendment that would only be necessary without the Revised North County Plan.

Table 2-4 lists the rough estimated costs of each option, both to the County and to local developers. The assumptions and detailed calculations for the cost estimates are shown in Table B-1 in Appendix B. These assumptions were derived based on the cost information in the 2017 Preliminary Draft North County Plan (updated to 2018 dollars), best professional judgement by ICF, as well as examples from recent approved plans in California that are the most similar to that option. Costs to the County were estimated using broad assumptions such as the size of the preserve system relative to the 2017 Preliminary Draft North County Plan, the amount of land left for the County to acquire, and the amount of land the County would manage. The cost estimates also take into account the efficiency of managing a larger preserve system and the lower efficiency of managing a smaller system. Costs to the County for the HCP/2081 (Public-Private) and Revised North County Plan both include cost-recovery from developers in the form of fees that would fund an endowment to reimburse the County for their cost of managing and monitoring the share of the preserve system that mitigates for developer impacts (this would be a new element to the Revised North County Plan and two HCP/2081 options).

Costs to developers also relied on assumptions of a hypothetical per-acre development fee that is assumed to be used in all three of the HCP options. These hypothetical fees are derived from similar approved plans using the average of their current fees. In those same options developers could also provide land in-lieu of those fees (onsite or offsite) just as they do now for the South County Plan. However, the costs to developers of providing land in-lieu of fees is much more difficult to estimate given highly variable land values that vary by parcel size and location.

All costs in Tables 2.4 and B-1 are reported in 2018 dollars. Overall costs are expressed in several ways, including the average annual cost, total cost over 50 years, and the total cost per acre of impact. The last variable is one measure of efficiency and economic value to the County.

Table 2-4. Comparison of Estimated Costs to Implement Each Option

	Project-by-Project ESA/CESA	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan
<i>Estimated Costs to County¹</i>					
Total cost to County (50 years) ²	\$268.9M	\$230.3M	\$242.2M	\$360.4M	\$312.5M
Differences from lowest cost option	17%	0%	5%	56%	36%
Total average annual cost to County	\$5.4M	\$4.6M	\$4.8M	\$7.2M	\$6.3M
Total cost per acre County impact (i.e., value to County)	\$108,000	\$92,000	\$69,000	\$103,000	\$89,000
<i>Estimated Cost to Private Developers¹</i>					
Total cost to developers (50 years)	\$2.1B	\$1.6B	\$2.1B	\$0.7B	\$0.6B
Differences from lowest cost option	232%	145%	232%	5%	0%
¹ All costs are in 2018 dollars. Estimates are based on costs relative to estimates in the 2017 Preliminary Draft North County Plan and based on professional judgment. See Table B-1 in Appendix B for detailed assumptions and calculations for each option and cost. Costs should be used as comparisons among options rather than absolute estimates of cost outcomes due to the uncertainties in assumptions. ² Costs to County only for mitigation for species impacts or NCCP compliance (County Parks would acquire and manage more land than this for open space, recreation, and other purposes such as the Climate Action Plan).					

These costs are rough estimates and the final cost of each option may vary considerably depending on decisions the County would make and option-specific negotiations with the Wildlife Agencies. Rather, the cost estimates are intended as a means to compare costs relative to the costs of other options. To facilitate that cost comparison, as few variables as possible were used in the analysis so that all assumptions are transparent and easily understandable. Table 2-5 summarizes the relative ranking for the different options.

The option with the lowest estimated cost to the County is the Conservation Strategy with an estimated \$4.6 million annual cost to the County. This option is estimated to have the lowest cost because it assumes that the County would aggressively reduce or redesign project footprints to avoid or minimize impacts on listed species and, in many cases, avoid the need for ITPs. The Project-by-Project ESA/CESA Compliance assumes the same level of avoidance and minimization but is more costly than the Conservation Strategy because project mitigation costs would be higher without a regional strategy to guide them.

The option with the second lowest cost to the County is the HCP/2081 (County Only), which is estimated to cost the County \$4.8 million annually (5% more than the Conservation Strategy). The option with third highest costs is the Project-by-Project ESA/CESA Compliance (17% more than the Conservation Strategy). After that, costs to the County increase substantially for the remaining two options. The estimated cost of the Revised North County Plan is 36% higher than the lowest cost option. The highest cost option to the County is the HCP/2081 (Public-Private). Under this scenario, the County would pay an estimated 56% more than the lowest cost option and 20% more than the Revised North County Plan.

The estimated differences in costs to developers produce somewhat different rankings (Tables 2-4 and 2-5). The lowest cost option to developers is the Revised North County Plan, followed closely by the HCP/2081 (Public-Private). The costs of these two options is similar because the estimated fee per acre to a developer is also similar (assumes a 5% difference). The next highest cost option for developers is the Conservation Strategy. The Project-by-Project ESA/CESA Compliance and HCP/2081 (County Only) options have the same estimated cost and the most expensive options for developers. They both function in the same way in that developers receive no economic benefit and proceed with their own project-by-project mitigation.

Table 2-5. Relative Ranking of Costs for Each Option

Ranking¹ (1 = Lowest Cost; 5 = Highest Cost)

	Project-by-Project ESA/CESA	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan
County Cost Ranking	3	1	2	5	4
Developer Cost Ranking	5	3	5	2	1
Overall Cost Ranking	5	1	3	3	2

¹ Rankings are based on the total estimated implementation cost of each option summarized in Table 2-4 and presented in more detail in Table B-1 (Appendix B).

2.1 Project-by-Project ESA/CESA Compliance

Under this option, the County would no longer pursue implementation of the North County Plan or any other regional plan to address endangered species compliance. Without a regional HCP or NCCP, project proponents (including the County) would pursue their own endangered species permits from USFWS, CDFW, or both agencies using a project-by-project process that would be more challenging than the process today.

While under this option the County would not pursue a habitat conservation plan, it is assumed the County would continue to implement other actions and policies that would result in further protection of open space. The following is a list of established County ordinances, plans, and programs that will continue to provide a degree of biological resource protection, management, and/or recreational benefits under the Project-by-Project ESA/CESA Compliance option:

- County General Plan (County of San Diego 2011a): While the General Plan would need to be amended to remove specific references to a North County Plan, the General Plan will continue to balance population growth and development with infrastructure needs and resource protection by focusing future growth away from backcountry areas, where sensitive natural resources are present, and into communities where there are opportunities for infrastructure and services.

- Local Coastal Program (LCP) (County of San Diego 2019c): preserves the unique environment of the County's Coastal Zone and encourages the protection and restoration of its resources, while encouraging public enjoyment of its recreational opportunities.
- Resource Protection Ordinance (RPO) (County of San Diego 2012): establishes special controls on development for the protection of the County's wetlands, floodplains, steep slopes, sensitive biological habitats, and prehistoric and historic sites.
- CEQA Guidelines for Determining Significance – Biological Resources (County of San Diego 2010): provides guidance for evaluating adverse environmental effects that a proposed project may have on biological resources and establishes standardized mitigation ratios for impacts to habitat located outside of approved MSCP Plans.
- Purchase of Agricultural Conservation Easements (PACE) (County of San Diego 2014): promotes the long-term preservation of agriculture by compensating willing property owners for the placement of easements on agricultural properties that limits future uses and future development potential.
- Climate Action Plan (CAP) (County of San Diego 2018a): includes measures for the acquisition of open space conservation land and agricultural easements (supporting both the PACE and South County Plan efforts), and measures for residential and County tree planting efforts.
- County Trails Program & Community Trails Master Plan (CTMP) (County of San Diego 2005): utilized to develop and manage a system of interconnected regional and community trails and pathways intended to address an established public need for recreation and transportation.
- Park Land Dedication Ordinance (PLDO) (County of San Diego 2018b): requires new residential development projects to dedicate park land for their new residents and/or pay park impact fees to the County so that parks can be developed.
- Resource Management Plans (RMPs): when funding is available for acquisition of preserves in North County, Resource Management Plans will be prepared for the management of biological resources within the preserves.

Because the Project-by-Project ESA/CESA Compliance option would require a General Plan Amendment, additional CEQA compliance would be required. This option therefore has an estimated planning cost of \$100–\$300K (Table 2-3).

Benefits

- Immediate savings on County staff and consultant costs. The largest immediate benefit of this option is that the County would avoid the time, effort, and cost to revise and complete the North County Plan. ICF estimates the consultant costs to complete the North County Plan in the range of \$700–\$1M and \$600–\$800K for the EIR/EIS on the plan (Table 2-3). There would be additional immediate cost savings from County staff no longer working on the project. However, these short-term cost savings would be lost by much larger long-term cost increases to the County to obtain state and federal endangered species permits for County infrastructure projects, as discussed below (e.g., lower economies of scale, increasing mitigation costs and requirements over time). The same long-term project costs would be borne by private developers (Table 2-3).

- **Certainty for current process.** The County has been working towards the development of the North County Plan for a number of years (see Section 1.2). This has left a level of uncertainty with the County, Wildlife Agencies, and stakeholders as to where and how endangered species compliance should occur. With the Project-by-Project ESA/CESA Compliance option, there is an immediate certainty of where things stand. Under the other options, the County will continue to pursue some degree of regional planning that does not have a certainty of being completed.
- **Reduced conservation commitments.** Another benefit to the Project-by-Project ESA/CESA Compliance option is lower costs to the County from reduced commitments for conservation and the associated long-term management and monitoring. Because the County would not be obtaining an NCCP, the County would only be responsible for mitigating its own impacts.

Drawbacks

There are many drawbacks to this option, some of which are substantial. Without the North County Plan, all project proponents, including the County, would be left to a project-by-project permitting process and would be subject to its inefficiencies, high costs, and slow timelines, as described in Chapter 1.

- **Most expensive option for private developers.** As shown in Tables 2-4 and B-1, this option is 17% more costly to the County than the lowest cost option and more than three times the estimated cost to developers of the least cost option to developers. This is due to a number of factors, including the substantially increased cost of mitigation and the time delay cost to developers of negotiating project-by-project mitigation with each Wildlife Agency separately. The Project-by-Project ESA/CESA Compliance option is ranked overall as the highest cost option (Table 2-5).
- **voids the County's HLP Program.** In 1994, the County adopted the County HLP Ordinance. Through the Southern California Coastal Sage Scrub Program, the Wildlife Agencies have granted to the County authority to grant "incidental take" of coastal sage scrub habitat to the County's project applicants as third-party beneficiaries. The HLP Ordinance is the means by which the County regulates the disturbance of coastal sage scrub habitat, which is the primary habitat of the federally threatened coastal California gnatcatcher. If the County decides to discontinue the North County Plan development process and terminate the Planning Agreement, the County's HLP Program will be voided. This rule is valid only as long as the County is "actively engaged" in preparing an MSCP (only the Revised North County Plan option). For the HLP to be valid, the County must also comply with the process guidelines of the Planning Agreement, which would also be terminated under the Project-by-Project ESA/CESA Compliance option. As described in Chapter 1, at least 26 pending projects are anticipated to use another 509 acres (17%).¹¹ If the HLP is voided, this take exemption process will no longer be available. HLPs already issued would still be valid, but the County could issue no further permits under the program. At that point all future projects with coastal sage scrub occupied by coastal California gnatcatcher would have to obtain take authorization from USFWS on their own, either through federal consultation (Section 7 of the ESA) or with their own project HCP (Section 10 of the

¹¹ Sources: 2018 HLP Annual Report, draft dated January 25, 2019 (County of San Diego 2019a), and County HLP permits pending list as of April 24, 2019. County staff have also estimated that 2,635 developable parcels occur on coastal sage scrub habitat in North County. Only those parcels occupied by coastal California gnatcatcher would require take authorization, but those could be a substantial portion of those 2,635 parcels.

ESA). This would result in many projects having to pursue project HCPs for even small impacts on occupied coastal California gnatcatcher habitat.

- Permit costs will increase over time. Mitigation costs without a regional conservation plan and under the project-by-project permitting process will continue to grow as more species are listed, mitigation requirements for these species increase, and the range of listed species expands (as discussed in Section 1.4.1, *Potential Benefits of North County Plan*). This is in contrast to any of the options with permits (Revised North County Plan or HCP/2081 options) in which mitigation costs are fixed for the duration of the permits.
- No permit streamlining. Without regional endangered species permits (Revised North County Plan or HCP/2081 options), the County will not have any permit streamlining benefits. In an increasingly complex project permitting process, the County can expect project delays to increase over time. Permitting demands on Wildlife Agency staff are also likely to increase (with a great workload of project permits), further delaying permit processing times and increasing project delays and costs.
- Reduced conservation benefits. Without regional endangered species permits, environmental stakeholders would not realize the conservation benefits of a regional plan such as protection of larger blocks of habitat for listed species, or protection of intact wildlife corridors. The County would likely continue to acquire land for open space and recreation in the North County Plan Area, but land would be managed to a lower degree for the benefit of listed species under the scenario of a Project-by-Project ESA/CESA Compliance option, as compared to the Revised North County Plan.
- No federal grants for land acquisition. Without the North County Plan, the County and other entities within the San Diego region would not be eligible to apply for the tens of millions of dollars available for land acquisition through ESA Section 6 grants (i.e., the federal Cooperative Endangered Species Conservation Fund). These grants are only available to approved NCCPs, such as the South County Plan. Instead, the County would continue to acquire its own conservation lands in the North County with General Fund money. As previously noted in Section 1.4.1, currently the County is no longer applying for state and federal grants due to land use restrictions associated with the funding, but that could potentially change in the future should the restrictions change.
- No guarantee that County land acquisition would support permit requirements. Under the Project-by-Project ESA/CESA Compliance option, the County would likely continue to acquire open space lands to support General Plan policies and implementation goals. Without regional endangered species permits there is no guarantee that these lands will be accepted by the Wildlife Agencies as mitigation for County projects. These negotiations would occur project-by-project as County projects that require ITPs are proposed.
- Cannot implement General Plan policies and required mitigation. Without the North County Plan the County would not have one of the primary tools available to implement key aspects of the Conservation and Open Space Element and Land Use Element of the County General Plan, such as creating an interconnected preserve system. Without the North County Plan, the County would also be out of compliance with the mitigation measures from the 2011 General Plan Update EIR (County of San Diego 2011b). The County would need to consider other tools to meet its General Plan policies and revise the General Plan Update EIR if the North County Plan is not completed.

- Loss of investment by County staff, Wildlife Agency staff, federal planning grants, and stakeholders. Discontinuing the North County Plan effort will waste the extensive effort, work, and funding that the County has put into the North County Plan development effort over the last 19 years. In addition, all of the work that was funded by the initial federal HCP planning assistance grants to the County (almost \$1.8 million from 1997 to 2006) would be lost. While the County would be under no obligation to refund the previous grant awards, the County would be less likely to obtain federal planning grant funding in the future.

2.2 Conservation Strategy – No Private or Public Covered Activities

Under the non-regulatory Conservation Strategy option, the County would not complete the North County Plan but would instead prepare a regional Conservation Strategy that would provide an effective framework to guide project mitigation. This option would not result in take permits from CDFW or USFWS.

A Conservation Strategy is a voluntary planning effort that provides guidance on how future conservation and mitigation actions could occur. A typical Conservation Strategy would include many of the elements of the early chapters of an HCP/NCCP such as environmental setting, species distribution models and ecological profiles, biological goals and objectives, and a conservation strategy. A Conservation Strategy could also include standardized mitigation guidelines, although there is no mechanism or permit to guarantee the mitigation guidelines are followed in all instances. Ideally, the County would work with the Wildlife Agencies to develop the Conservation Strategy with the intent that it becomes the consistent blueprint for all mitigation and conservation actions occurring in the Plan Area. One example of a successful Conservation Strategy is the East Alameda County Conservation Strategy. The program was established in 2010 as an alternative to developing an HCP or NCCP in Alameda County. This example is described as a case study after the benefits and drawbacks in this report.

We estimate that the Conservation Strategy option would cost approximately \$250–\$500K to prepare based on the work to date on the North County Plan and take 12–16 months to complete (Table 2-3). It is assumed that this Conservation Strategy Plan would be taken to the Board of Supervisors as a discretionary action and require a CEQA review. Further, the Conservation Strategy option would also require a General Plan Amendment, so the combined additional CEQA compliance would be required at an estimated planning cost of \$450–\$1M (Table 2-3).

Benefits

The primary benefits of a Conservation Strategy include:

- Less time and effort to complete. A Conservation Strategy would take less time and effort to complete because it would be a voluntary planning effort that does not trigger the rigorous review by the Wildlife Agencies required for them to make findings for permit issuance. While a Conservation Strategy is a voluntary planning effort, it is assumed that this option would be pursued by the County as a discretionary action to be taken to the Board of Supervisors for approval. As a result, CEQA review will be required. The cost to complete the Conservation

Strategy is approximately 35-55% of the estimated cost of completing the Revised North County Plan in about half the time (Table 2-3).

- Lowest cost option to County and overall. The Conservation Strategy is the lowest cost option to the County because it assumes that the County will aggressively avoid and minimize impacts on listed species and their habitat when designing and planning projects. The Conservation Strategy is cheaper than the Project-by-Project ESA/CESA Compliance option as the cost model assumes that the County will be able to achieve a more favorable mitigation ratio because it is informed by the regional Conservation Strategy. When County and developer cost rankings are considered together, the Conservation Strategy ranks as the lowest cost option overall (Table 2-5).
- Provides some mitigation streamlining. Project proponents who use the Conservation Strategy may realize streamlining benefits for their project permits for listed species. The Wildlife Agencies are likely to favor mitigation designs and ratios consistent with the Conservation Strategy because the mitigation will more clearly help to achieve the regional strategy. While there are no guarantees of this streamlining, it is likely to occur to some degree if parties follow the guidelines in the document.
- It is a way to derive benefits from work done to date for the North County Plan. If the County decides not to move forward with the North County Plan as an HCP/NCCP, the Conservation Strategy option would allow the County to utilize some of the important elements of the work to date. The baseline data inventory and analysis—such as species distribution mapping; wildlife movement areas; the Pre-Approved Mitigation Area (PAMA) map; and the avoidance, minimization, and mitigation measures already prepared as part of the draft North County Plan document—could be “repackaged” as the foundation of a voluntary Conservation Strategy.
- Does not require commitments. A voluntary Conservation Strategy requires no commitments of funding or actions by the County. The County or third-party developers may use the Conservation Strategy to help guide their mitigation, but they are not obligated to do so. This is in contrast to an HCP/NCCP or HCP/2081 options, both of which are permits from CDFW and USFWS that come with considerable obligations in return for take authorization.
- County and stakeholders can work towards environmental benefits. Under the Conservation Strategy, the County and stakeholders can continue to plan and implement conservation measures intended to achieve environmental benefits similar to those described under an HCP/NCCP (see Section 1.4.1.2, *Environmental Benefits*). In addition, pursuing a Conservation Strategy fulfills goals and policies of the Conservation and Open Space Element of the County General Plan and will guide the DPR in their land acquisition efforts.
- Allows for an HCP/NCCP in the future. A voluntary Conservation Strategy could be used as a foundation for the County to pursue an HCP/NCCP in the future.

Drawbacks

The main drawback of the Conservation Strategy option is that it does not result in ITPs from the Wildlife Agencies, and therefore no regulatory assurances associated with those ITPs. Similar to the Project-by-Project ESA/CESA Compliance option, without the North County Plan as an HCP/NCCP, all project proponents, including the County, would complete project-by-project permitting processes. While the Conservation Strategy option will be designed to help streamline the project-

by-project mitigation process, it does not provide the guarantees of this streamlining that would be associated with ITPs from an HCP/NCCP or HCP/2081.

Other drawbacks of a Conservation Strategy include:

- Very high costs to private developers. Based on the assumptions and estimates in Tables 2-4 and B-1, the cost of this option for developers would be more than double (145%) the cost of the lowest cost option to developers (the Revised North County Plan).
- Loss of HLP. A Conservation Strategy would not meet the Wildlife Agencies expectations outlined in the Planning Agreement that allowed for the County HLP. As a result, the County will lose their HLP, which would likely result in more project-level HCPs in the Plan Area.
- Loss of grants. A Conservation Strategy will exclude the County from grant opportunities in North County or East County that require an HCP/NCCP (e.g., ESA Section 6 grant funding). However, it will still provide a framework to prioritize areas for acquisitions that could be used to apply for other grants.
- More complex permitting. The Conservation Strategy option does not provide the regulatory mechanism for streamlining federal and state wetlands permitting.
- Contrary to General Plan policies and mitigation. A Conservation Strategy does not fulfill the County's commitment to General Plan Policies, such as creating an interconnected preserve system, or to prepare a regional HCP/NCCP process in the General Plan EIR, thus requiring an analysis of different tools to meet General Plan policies and to revise the General Plan EIR.

Case Study

For this option, the following case study for the East Alameda County Conservation Strategy (ICF 2010) is presented as an example of how a Conservation Strategy approach can be developed and implemented.

In 2010, a collection of federal, state, and local entities worked together to complete the East Alameda County Conservation Strategy (EACCS) after it was determined that there was not enough future development to warrant the development of an HCP and NCCP. The EACCS is intended to provide an effective framework to protect, enhance, and restore natural resources in eastern Alameda County, while improving and streamlining the environmental permitting process for impacts resulting from infrastructure and development projects. The EACCS focuses on impacts on biological resources such as endangered and other special-status species as well as sensitive habitat types (e.g., wetlands, riparian corridors, rare upland communities).

The primary purpose of the EACCS is to provide a baseline inventory of biological resources and conservation priorities that will be utilized by local agencies and Wildlife Agencies during project-level planning and environmental permitting. To this end, the EACCS describes how to avoid, minimize, and mitigate impacts on selected focal special-status species and sensitive habitats. By implementing the EACCS, local agencies are able to more easily address the legal requirements relevant to these species. Projects and activities that will benefit from the EACCS have included urban and suburban growth and a variety of road, water, and other needed infrastructure construction and maintenance activities. The EACCS does not result in permits, but rather serves as guidance for project-level permits. The Wildlife Agencies participated in the development of the EACCS to establish a common blueprint for how project proponents and the Wildlife Agencies

determine mitigation and conservation actions in the study area. In addition, the USFWS, in consultation with the Corps, decided to complete a programmatic Biological Opinion that addresses the EACCS in order to facilitate Section 7 project reviews.

The goals of the EACCS include:

- Set priorities for mitigation and conservation to contribute to the protection of special-status species and sensitive habitats in eastern Alameda County.
- Improve corridors and linkages between other conservation planning efforts (HCPs/NCCPs) inside and adjacent to the EACCS Study Area.
- Set goals to document, protect, and enhance native biological and ecological diversity in the study area.
- Establish a set of standards to preserve, enhance, restore, manage, and monitor native species and the habitats and ecosystems upon which they depend.
- Streamline and simplify the issuance of permits for future project proponents in the study area by indicating clear standards for lawful incidental take of species listed as threatened and endangered pursuant to the ESA and CESA.
- Standardize avoidance, minimization, mitigation, and compensation requirements of the ESA, CESA, CEQA, NEPA, and other applicable laws and regulations relating to biological and natural resources within the study area, so that public and private actions will be governed equally and consistently, thus reducing delays, expenses, and regulatory duplication.
- Provide a less costly, more efficient project review process that will result in more productive conservation than the current project-by-project, species-by-species compliance process for special-status species and sensitive habitat.
- Restore natural communities that have been degraded or lost over time where possible.
- Introduce creative solutions to making land management activities which benefit focal species more feasible.

Over the last 10 years since its adoption, the EACCS has functioned as a tool to assist in the streamlining of the process for determining mitigation requirements and prioritizing areas for conservation. However, since it has been a voluntary program, it has not had the same degree of implementation, tracking, and coordination typically associated with HCP/NCCPs.

2.3 HCP/2081 (no NCCP) – County-Only Covered Activities

This option involves scaling back the North County Plan so that it no longer meets the higher regulatory standard of the NCCP Act. The NCCP Act requires that all NCCPs “conserve the covered species in the plan area.” *Conservation* is defined by the NCCP Act as an improvement in the status of a species to the point where, when combined with other NCCPs, the species can be removed from the state endangered species list. In practical terms, this means that NCCPs must go beyond mitigation and contribute to the recovery of each covered species.

Without an NCCP, the other way to receive state take authorization is through a more traditional ITP under Section 2081(b) of the California Fish and Game Code. The regulatory standard for a 2081(b) ITP is to “fully mitigate,” which is functionally the same as the federal standard under the ESA (“minimize and mitigate to the maximum extent practicable”). This difference in regulatory standard was important enough for two counties in California to prepare an HCP/2081 after they began their planning process intending to complete an HCP/NCCP. The Solano County Water Agency began preparing an HCP/NCCP with a coalition of several other cities and special districts in Solano County (although not the County itself). When they realized that they could not afford to achieve the necessary conservation for Swainson’s hawk (a state threatened species), they discontinued the NCCP in favor of a large-scale 2081(b) permit (LSA 2012). A similar decision was made for the county-led South Sacramento HCP (County of Sacramento et al. 2018).

A 2081(b) ITP has several other important limitations and differences when compared to an NCCP, as shown in Table 2-6. Most importantly, the strong “No Surprises” assurances from the state are not available with a 2081(b) ITP, nor can the County cover species on the state permit that are not currently state listed. This means that if a new species becomes state listed in the future, the 2081(b) ITP would need to be amended to include that newly listed species (Table 2-6). Finally, there would be little state or federal funding available to support implementation of an HCP/2081 because the HCP only provides mitigation, and state and federal funding cannot be used to support mitigation.

In this option, the County would prepare an HCP that includes only County covered activities. This would be a substantially scaled back option from the options that cover both private and public development activities (Revised North County Plan and HCP/2081 (Private-Public) options). For those options, the estimated amount of impacts on natural habitat is 36,670 acres. For an HCP/2081 (County Only) option, the estimate of impacted habitat would be in the range of 3,000 to 4,000 acres. This is an approximation that takes into account an inventory of the near-term known and anticipated projects from County master planning documents (with DPR and Department of Public Works (DPW)), as well as a forecast of future impacts over the long-term by considering trends in the amount of habitat impacts associated with County projects in years past. The amount of conservation included under this option would include only acquisitions by the County within the North County Plan Area. It is anticipated the County has already met the conservation obligations under this option through the over 6,900 acres of acquisitions since 2001 in the North County Plan Area.

There are a number of examples of HCP/2081 plans that have been prepared for a single entity. For instance, Kern County completed the Waste Facilities HCP in 1997 that covered impacts associated with the development and expansion of 14 landfills throughout the County (Kern County Waste Management Department 1997). ICF is currently assisting Kern County with a Major Amendment to this HCP/2081 that will provide for permitting of 1,180 acres of new ground disturbance at existing and new sites and resulting from different types of covered activities. In this example, Kern County has already acquired candidate conservation lands using a set of selection criteria that emphasizes obtaining properties close to existing protected lands, within regions determined as priority acquisition areas by regional wildlife organizations, and part of a block of natural habitat. Kern County will establish Habitat Reserves on these properties in rough-step proportionality with impacts associated with specific County activities.

We estimate that the HCP/2081 (County Only) option would cost approximately \$400–\$600K to prepare, maximizing the use of the work to date on the North County Plan. We believe that NEPA compliance for this more focused plan could be an EA instead of an EIS, with an approximate cost for the environmental document (EIR/EA) and CEQA for a General Plan Amendment totaling \$500–900K. Thus the total approximate cost for this option would range from \$900–\$1.5M. We estimate that this plan would take 16–24 months to complete (Table 2-3).

Table 2-6. Important Differences between NCCP and 2081(b) Take Permits

Key Component	NCCP Take Permit	2081(b) ITP
Regulatory Assurances	Strong “No Surprises” assurances	None
Covered Species	State listed species and non-listed species	Only state listed species
Regulatory Standard	“Conserve” each covered species (i.e., contribute to recovery)	“Fully mitigate” impacts to each covered species
Information Standard for Covered Activities	Programmatic descriptions are sufficient	Must describe projects and specific programs
State and Federal Funding Available for Implementation	Substantial (only for activities beyond mitigation)	None
Implementing Agreement (IA)	Required	Not required

Benefits

- **Less time and effort to prepare.** Because this option would have a limited scope for covered activities and conservation requirements, preparation of the HCP/2081 would take less time and effort than a conservation plan associated with both public and private covered activities. However, this option would not benefit too heavily from previous efforts for the North County Plan as those efforts were focused on regional planning perspective.
- **Relatively low cost to County to implement.** Because this option would only cover County projects, the implementation costs of acquisition, management and monitoring, and administration would be substantially lower than if the County was also supporting a portion of the implementation costs associated with private development. This option ranked as the second lowest cost option for the County (Table 2-4), only 5% higher than the lowest cost option (Conservation Strategy).

Drawbacks

- **Does not support private development.** The primary drawback to this option is that it does not meet the expectations for a number of stakeholders associated with private development activities. The private development covered activities would have to pursue project-by-project compliance.
- **Highest cost to developers.** Because this option would not provide any endangered species permits for private developers, developers would have to seek and obtain their own project permits one-by-one. The cost to developers of this option would therefore be the same as the Project-by-Project ESA/CESA Compliance option, which is over three times the cost to developers as the lowest cost option (Tables 2-4 and B-1).

- Not fully consistent with General Plan EIR. The HCP/2081 (County-only) option may also not be consistent with the commitments made by the County to complete a North County Plan. The County made this commitment in the mitigation measures (BIO-1.2 & CC-1.10) for the 2011 General Plan Update EIR (County of San Diego 2011b). The North County Plan as an NCCP would support the County’s effort to meet three important goals and their associated policies (COS-1, COS-2, and COS-3). It may be less effective to meet these policy goals with the North County Plan as a mitigation-only HCP/2081, which would require a revision to the General Plan EIR.
- Fewer species covered. One of the key drawbacks of the HCP/2081 (County-Only) option is that the 2081(b) ITP versus an NCCP can only cover state-listed species. The state “No Surprises” assurances that are provided through an NCCP are not available for a 2081(b) ITP. In practical terms, this means that of the 29 species currently on the covered species list in the 2017 Preliminary Draft North County Plan,¹² 11 species (38%) can be covered by the state ITP in this scenario (Table 2-7), though all can be covered under the HCP. Eighteen species covered by the HCP could not be covered on the state permit because they are not currently state-listed species. Once those species become listed by the state, the County could apply to CDFW to amend the state permit. The permit amendment process could be relatively straightforward, but there are no guarantees because of the lack of “No Surprises” assurances and a separate permit amendment would be required each time a new species is state listed. In addition, with the lack of “No Surprises” assurances the state could come back to the County in the future and request or require additional mitigation for any of the covered species if the status of the species continues to decline. This issue will probably not matter to the County early in the permit term because no new species are likely to be state listed. However, this shortcoming will matter later in the permit term as new species are listed by the state.

Table 2-7. Species on the North County Plan Species List That Are State Listed

	Type	Common Name	Scientific Name
1		Golden Eagle	<i>Aquila chrysaetos canadensis</i>
2		Least Bell's vireo	<i>Vireo bellii pusillus</i>
3	Birds	Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>
4		Tricolored blackbird	<i>Agelaius tricolor</i>
5		Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>
6	Mammals	Stephens' kangaroo rat	<i>Dipodomys stephensi</i>
7		Encinitas baccharis	<i>Baccharis vanessae</i>
8		Orcutt's spineflower	<i>Chorizanthe orcuttiana</i>
9	Plants	San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>
10		San Diego thornmint	<i>Acanthomintha ilicifolia</i>
11		Thread-leaved brodiaea	<i>Brodiaea filifolia</i>

- Fewer grant opportunities. Another important drawback of the HCP/2081 (County-Only) option is that state and federal funding opportunities for implementation are substantially reduced.

¹² Note: Further evaluation of the covered species list may be warranted. ICF recommends dropping golden eagle and Engelmann oak from the list of covered species, which could bring the total to 27.

State and federal grants cannot pay for mitigation. Because the 2081(b) only provides mitigation, the County would likely be ineligible for any state or federal grants for land acquisition, land management, restoration, or monitoring. To date, the South County Plan has received almost \$60 million in federal funding for land acquisition (Table 1-3), none of which would have occurred if the South County Plan was not an NCCP. Therefore, the North County Plan has the potential to lose at least that amount of state and federal funding, if not substantially more, over the 50-year life of the permit. However, as previously noted, the County has elected not to pursue these types of grants because of the terms implementing regulations.

2.4 HCP/2081 (no NCCP) – Public and Private Covered Activities

This option involves scaling back the North County Plan so that it no longer meets the higher regulatory standard of the NCCP Act, but still covers both private and public activities. We estimate that the HCP/2081 option with public and private projects covered would cost approximately \$600–\$800K to prepare, maximizing the use of the work to date on the North County Plan. The EIR/EIS for this HCP/2081 along with CEQA for a General Plan Amendment would combined cost approximately \$500–\$900K, for a total approximate cost range of \$1.1M–\$1.7M, and would take 24–36 months to complete (Table 2-3).

Benefits

- Lower mitigation standard. The key benefit of pursuing an HCP/2081 is that it would simplify negotiations with CDFW, allow the County to scale back to a plan that meets a lower mitigation-only standard of the CESA, and have a higher degree of certainty that a plan can be completed relative to an HCP/NCCP. If successful, this would reduce many of the costs of the North County Plan including land acquisition, land management, and monitoring. A detailed quantitative analysis has not been done of how much the North County Plan could be scaled back to meet this lower regulatory standard, but it is expected it would be in the range of 25–40% less land acquisition and a somewhat lower range of cost reduction. However, it is important to note that the cost reductions would not accrue as much to the County as they would to the state and federal agencies who would no longer be providing grants to support the conservation component of the North County Plan. The direct savings to the County would be the reduction in cost associated with less land acquired for County Open Space Preserves. Although the County may acquire some or many of these lands anyway, the standard of management and monitoring would be lower under an HCP/2081 than it would under an HCP/NCCP, saving some ongoing management and monitoring costs. The difference in management and monitoring costs have not been quantified, but it is expected that costs would be in the range of 10–20% lower than under an HCP/NCCP.
- Relatively lower cost to developers. The HCP/2081 (Public-Private) option ranks 2nd in total cost to developers (Table 2-5). The difference in cost between this option and the lowest cost option (Revised North County Plan) is only about 5% (Tables 2-4 and B-1). The relatively low cost of this option is due primarily to the scale and efficiency of a large HCP and the lack of time delay costs associated with the non-HCP options.

Drawbacks

- Highest cost to County. The HCP/2081 (Public-Private) option ranks as the highest in total cost to the County (Table 2-5). Costs to the County are estimated at 56% higher than the lowest cost option to the County and 20% higher than the Revised North County Plan option (Tables 2-4 and B-1).
- Similar drawbacks to HCP/2081 (County Only) Option. This option would also have similar drawbacks identified for the HCP/2081 (County-Only) option as it would not accomplish all of the conservation goals of the General Plan, fewer species covered by the state, fewer grant opportunities, and would not achieve the level of regulatory certainty provided through an NCCP.

2.5 Revised North County Plan (HCP/NCCP)

In this option, the County would decide to complete a version of the North County Plan, which is both an HCP to satisfy the ESA and an NCCP to satisfy the state NCCP Act and CESA. It is assumed that the County would integrate all or most of ICF's recommended changes to the document content, organization, and process described in Chapter 3 of this report. This option does not commit the County to adopting the North County Plan, but it would commit the County to a new path for the North County Plan that, in ICF's view, has a substantially improved chance of success. "Success" as defined here means that the County adopts a North County Plan that benefits County public projects and activities; provides streamlining, cost, and regulatory certainty benefits to private developers within the Plan Area; and receives state NCCPA take permit and federal ITP for covered species.

Based on our assessment of the work needed to revise and complete the North County Plan (see Chapter 3 for details), an approximate cost range to complete the North County Plan would be \$700-\$1M plus \$600-\$800K for the EIR/EIS. This would be a total approximate cost range of \$1.3-\$1.8M over a 24-30 month timeframe (Table 2-3).

Benefits

The potential benefits of an HCP/NCCP are described in detail in Section 1.4. The Revised North County Plan option would realize these benefits to the greatest degree. The estimated cost to implement the Revised North County Plan ranked fourth for the County and first for private developers, ranking second overall (Table 2-5). The cost to the County of implementing the Revised North County Plan was approximately 36% higher than the lowest cost option to the County (Conservation Strategy) (Tables 2-4 and B-1). For developers, the Revised North County Plan option has an estimated 5% lower implementation cost than the next lowest-cost option, the HCP/2081(Public-Private). In summary, the economic benefits of completing and implementing a Revised North County Plan option include:

- Reduce project mitigation and survey costs.
- Ensure faster project approvals, especially for public and large development projects.
- Provide the strongest possible regulatory assurances from the Wildlife Agencies.
- Provide a new revenue source for landowners.

- Provide a magnet for state and federal funding to local landowners and local restoration businesses.
- Realize the return on the investment already made by the County to get to this point in the planning process.

There are also a host of environmental and other benefits to completing a Revised North County Plan, all of which are described in more detail in Section 1.4:

- Provide a unique ability to protect large blocks of species' habitat.
- Protect landscape linkages and wildlife corridors.
- Provide guarantees of improved and consistent long-term management and monitoring of protected lands.
- Bring decision making over endangered species to the local level.
- Fulfill goals and policies of the County General Plan.
- Fulfill mitigation requirements of the County General Plan Update EIR.
- Fulfill County commitment to a regional HCP and NCCP process (MSCP Program) that includes the North County Plan.
- Increase open space, protect aesthetic values, and help maintain the rural character of the County.
- Increase recreational opportunities that are compatible with the Preserve System and the protection of biological resources.
- Simplify CEQA and NEPA compliance for County projects, especially for biological resources.
- Support other County initiatives, such as the 2018 CAP, PACE Program, and others.

If the County adopted a North County Plan but still could not reach agreement with the Wildlife Agencies on the final terms of a North County Plan, the work would not be lost. Much of the content of a completed North County Plan based on the recommendations in this report would include the majority of the information needed for either HCP/2081 options as well as the Conservation Strategy option. Therefore, with a moderate amount of additional effort the North County Plan could be converted into one of these other options.

Drawbacks

- Compared to the other options, completing a Revised North County Plan would require the greatest additional County resources (money and staff time) and would take the most time to complete.
- A Revised North County Plan would cost more to implement than an HCP/2081 because the County would have conservation obligations to meet instead of the more modest requirement to only mitigate for the impacts of the covered activities. However, the County has already met some of those conservation obligations through the approximately 6,900 acres of acquisitions since 2001 in the North County Plan Area (approximately 50% of which were paid for by County General Funds and the rest by local, state, and federal grants).

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Evaluation of Current Plan and Recommendations

If the County decides to complete the North County Plan as an HCP/NCCP, there are a number of items that will need to be addressed for a Revised North County Plan. In Section 3.1, ICF has identified specific technical and compliance issues with the 2017 Preliminary Draft North County Plan that should be addressed. In Section 3.2, ICF has developed recommendations for some major changes to the structure of the Plan and the County's approach to completing the Plan.

3.1 Evaluation of Current Plan

ICF completed a review of the 2017 Preliminary Draft North County Plan. The North County Plan document in its current working draft state is fairly complete, is generally well written, and is reasonably clear. ICF has provided these comments to help the County improve the document and to create an easily implementable conservation plan for 50 years. Comments here are only those recommended by ICF for the County to consider and have not yet been reviewed by the Wildlife Agencies. Incorporating these comments will clarify and strengthen the document, potentially reduce public comments (or make them easier to respond to), and reduce legal vulnerability. ICF has provided additional comments and some suggested edits in the chapter files as well. We have summarized the general comments in this chapter and have provided comments organized by chapter to County staff. The following summarizes our input for the completeness, appropriateness of the level of detail, document organization, use of best available data, and evaluation of the North County Plan against regulatory requirements.

3.1.1 Completeness

While we recognize the 2017 Preliminary Draft North County Plan is a working draft document and some components of the Plan are continuing to be worked on, ICF has identified some important elements missing from the current draft of the North County Plan that will need to be completed and/or clarified for a public review draft.

3.1.1.1 Avoidance and Minimization Measures

Avoidance and minimization measures need to be included and clarified in the conservation strategy of the North County Plan. The County has many existing ordinances and programs that it is not taking enough credit for in the North County Plan, such as relevant details of the North County Biological Mitigation Ordinance (BMO), the Grading Ordinance, the Resource Protection Ordinance, and the Conservation Subdivision Program. These should all be summarized in a section of the conservation strategy to make it easier for the Wildlife Agencies to review.

3.1.1.2 North County BMO

Provisions of relevant ordinances must be included in the North County Plan for the Wildlife Agencies to "count" them; otherwise, they assume ordinances can be changed and weakened. This includes the North County BMO. While it is true that the County has the authority to change County

ordinances, the key provisions of the BMO that the North County Plan is relying on for implementation must be upheld to maintain compliance with the permits. Because the North County BMO will implement provisions of the North County Plan, it must also be included as an appendix to the public draft and final MSCP.

3.1.1.3 Implementing Agreement

The Implementing Agreement (IA) is a joint USFWS/County document that clarifies the provisions of the North County Plan and specifies how the North County Plan will be carried out. IAs are not required under Section 10 but are useful for more complex plans like the North County Plan. The IA will be included in the USFWS legal review and should be included as an appendix to the North County Plan for the public draft and the final plan. A draft IA was included in the 2014 draft North County Plan, which appears to be mostly complete in terms of structure, organization, and content. That draft IA should be updated to be consistent with the public draft North County Plan prior to public review.

3.1.1.4 In-lieu Fee Program

The North County Plan is unclear as to whether there will be a provision to allow for developers to pay a mitigation fee if they do not own enough land or have enough suitable land to meet the mitigation requirements on their own. While the 2017 Preliminary Draft North County Plan identifies an in-lieu fee program as an approach, the North County Plan would benefit by having a firmer commitment to implement such a program. This will give more flexibility by allowing developers to pay a fee instead of dedicating a portion of their land as mitigation or identifying their own offsite mitigation arrangements. In addition, an in-lieu fee program provides the County with improved opportunities to consolidate efforts to identify, select, and acquire mitigation lands in a manner that meets the conservation strategies to protect large, inter-connected habitat blocks.

3.1.1.5 Effects (Impacts) Analysis

The effects analysis is included as a part of the *Covered Activities* chapter (Chapter 3 in the 2017 Preliminary Draft North County Plan) and appears to be missing important information. We recommend that the effects analysis be developed as a separate chapter to clearly document the methods for estimating take (the impacts of all covered activities), clearly quantifying the estimated take for each species in terms of acres of habitat (based on the species predicted distribution models). Similarly, the effects analysis needs to quantify impacts on all natural communities in the Plan Area. While some of the necessary information is found in the conservation analysis for each species (Appendix B of the 2017 Preliminary Draft North County Plan), that information should be brought into the effects analysis chapter and clearly summarized in tables showing the acres of impact expected for each species from each of the types of covered activities. This table will clearly document the amount of take that will be included in the ITPs for all species covered under the North County Plan. One of the fundamental assessments the Wildlife Agencies will conduct will be to compare that amount of take to be permitted under the Plan with the amount of mitigation that will be achieved, and additional conservation that will occur (NCCP only). Therefore, the calculation of estimated take for each species and impacts on natural communities will also be included in the conservation strategy chapter for comparison with the amount of mitigation and conservation. The text currently included in Chapter 3 and Appendix B of the Preliminary Draft North County Plan can be substantially condensed and streamlined into a new *Effects Analysis* chapter that will clearly document the amount of take to be permitted by the Plan.

3.1.2 Document Organization

Effects and conservation actions are scattered across four chapters in the 2017 Preliminary Draft North County Plan. Chapters 3, 4, and 5 need to be reorganized to allow the Wildlife Agencies to more clearly see the effects (impacts) and proposed conservation. If the County decides to complete the North County Plan, we propose a new organization for these chapters (Table 3-1) that should be vetted with the Wildlife Agencies.

Table 3-1. Recommended Reorganization of Chapters 3, 4, and 5

New Chapter and Section	From Existing Chapter, Section	Notes
<i>Chapter 3, Covered Activities</i>		
3.1 Overview	Same section	
3.2 Overview of County General Plan	Same section	
3.3 Covered Activities	Same section	
<i>Chapter 4, Effects Analysis</i>		
4.1 Introduction and Approach	New section	
4.2 Definitions	New section	
4.3 Effect Mechanisms		
4.3.1 Natural Community Effect Mechanisms	3.4.1 Threats and Impacts to Natural Communities	Refine section to tie impacts more closely to the covered activities
4.3.2 Species Effect Mechanisms	3.5 Threats and Impacts to Covered Species	Refine section to tie impacts more closely to the covered activities
4.4 Effects on Natural Communities (Subsection for each community)	5.5 Vegetation Community Conservation (in part) Appendix B Conservation Analysis + New Analysis and Text	New work needed to clearly describe impacts (permanent and temporary) on each natural community
4.5 Effects on Covered Species (Subsections for each species)	5.6 Covered Species Conservation (in part) Appendix B Conservation Analysis + New Analysis and Text	New work needed to clearly describe impacts (permanent and temporary) on each covered species
4.6 Effects on Critical Habitat (subsections for each species with critical habitat)	New section	To support USFWS Biological Opinion
4.7 Cumulative Effects	New section	To support USFWS Biological Opinion
<i>Chapter 5, Conservation Strategy</i>		
5.1 Overview	Same section	
5.2 Framework	New section	
5.2.1 Planning Units	5.3 Planning Units (descriptions)	
5.2.2 Biological Goals and Objectives	New methods subsection	

New Chapter and Section	From Existing Chapter, Section	Notes
5.2.2.1 Landscape-level Goals and Objectives	5.2 Landscape Level (Conservation Goals and Objectives)	
5.2.2.2 Planning Unit Goals and Objectives	5.3 Planning Units (Conservation Goals and Objectives)	
5.2.3 Preserve Design Process	4.2 Preserve Design Process 4.3 Pre-Approved Mitigation Areas	
5.3 Conservation Actions		
5.3.1 Preserve Assembly	4.4 Preserve Assembly (all subsections)	
5.3.1.1 Preserve Connectivity	5.4 Preserve Connectivity (all subsections)	
5.3.2 Natural Community Restoration	New section (if applicable)	
5.3.3 Preserve Management	6.1.3 North County Framework Resource Management Plan 6.1.4 Resource Management Plans 6.2 Preserve Stewardship	Describe in enough detail to allow ESA and NCCP findings. Save details for site-specific RMPs that can come later. This may either replace FRMP or summarize FRMP appendix.
5.3.4 Avoidance and Minimization (subsections by natural community and species or species' groups)	New section	If too long move to new chapter immediately following Chapter 5.
5.4 Conservation Outcomes for Vegetation Communities	5.5 Vegetation Community Conservation (7 types)	
5.5 Conservation Outcomes for Covered Species	5.6 Covered Species Conservation (29 species)	

3.1.3 Best Available Data – Species Models

The NCCP Act and HCP Handbook¹³ emphasize conservation plans should be based on the best available science to address impacts, determine conservation needs, and evaluate responses to changed circumstances (including climate change). The current draft of the North County Plan document relies on the County species distribution models for all species. These models are based on overlays of defined ecoregions, vegetation, soil categories, and slope. The results are defined as suitable habitat (Yes/No model). While using the results of the matrix model output provides a straightforward and consistent approach for each species, the Wildlife Agencies have noted concern about the appropriateness of some of the species distribution models and have suggested using other more current and robust species distribution models. As part of ongoing discussion with County staff and the Wildlife Agencies, ICF recommends that some of the species models be replaced or revised to meet the criteria of best available data.

¹³ United State Fish and Wildlife Service (USFWS). 2016. Habitat Conservation Planning and Incidental Take Permit Processing Handbook. December.

Further work is needed to identify the appropriate sources and models that could/should be used moving forward. An overview of the species models, described by model type, which may need to be replaced or adjusted, includes:

- **Statistically Based Models.** Other regional entities (e.g., San Diego Management and Monitoring Program [SDMMP] and United States Geological Survey [USGS]) have recently developed statistically based models that evaluate the correlation of factors with known occurrences. The output from these models can provide a ranking of habitat suitability from high to low. These models are being used for other regional conservation planning and monitoring activities. It is recommended the current version of these models be used for the following species:
 - Coastal California Gnatcatcher (SDMMP)
 - Coastal Cactus Wren (SDMMP)
 - Arroyo Toad (USGS)
 - Burrowing Owl (San Diego Zoo)
 - San Diego Thornmint (Conservation Biology Institute)
- **Updated Expert Models:** For a number of species, the evaluation of suitable habitat could be improved by implementing a more robust modeling approach that brings in other habitat categories (e.g., breeding versus upland aestivation habitat) and/or more detailed data. It is recommended that newer available models be adapted for the North County Plan for the following species:
 - Stephens' Kangaroo Rat: suitable grassland habitat in proximity to known occurrences.
 - Southwestern Pond Turtle: add upland component that is 1,000 feet around breeding habitat.
 - Tricolored Blackbird: suitable habitat in proximity to known colonies.
 - Vernal pools: using the approach applied in the San Diego Vernal Pool HCP, identify areas that would potentially have vernal pools based on soils and slope.
 - Quino Checkerspot Butterfly: more research and discussion to decide on an appropriate Quino model.
 - Western Spadefoot Toad: more research and discussion to decide on an appropriate Western Spadefoot model, but based on research in the Science Advisor Report for Santee MSCP Subarea Plan.
 - Yellow-billed Cuckoo: more research and discussion to decide on an appropriate Cuckoo model, but based on modeling work completed by ICF for the High Speed Rail project.

For all other covered species, the current species distribution models based on the Oberbauer/matrix approach are fine to move forward with as best available data.

3.1.4 Clarify Methods to Quantify Take and Conservation

The Wildlife Agencies will require specific information in order to be able to make their findings and determine if the North County Plan meets the regulatory standards and permit issuance criteria. Key information essential to the ability to make these findings relates to the amount of impact (take) and

the amount of mitigation and conservation for each species. While additional information is also important to make their findings, it is essential to be able to answer these basic questions as a starting point:

1. How much take of each covered species is estimated to occur from covered activities (e.g., as measured in acres of species habitat)?
2. How much mitigation for each species is expected to occur through plan implementation (e.g., also in acres of species habitat)?
3. How much additional conservation above and beyond mitigation will be achieved for each species?

While some of this information is quantified, it is located in different parts of the document. Bringing this information into a single table will make it much easier to determine if the basic evaluation of the balance of take to offsetting mitigation and additional conservation are in the right range for the agencies to make their findings. Such a table should include all categories of impact, mitigation, conservation, and other assumed status (e.g. baseline conservation) so that the total acres of habitat for each species in the Plan Area is equal to the sum of all the categories of the table. It is important to distinguish between categories that are mitigation and conservation credit versus other category types that would not count towards offsetting the impacts and take. All areas that will receive an increased level of protection, monitoring, and management under the North County Plan are generally eligible to count, while areas that are simply avoided but not managed as a part of the Preserve System do not. ICF provided a sample table (see Table 3-2 in the Section 3.2, *Recommended Approach*) to assist the County in creating a single table that readily shows the estimated take, the categories of the Preserve System that will be managed and monitored, and the other categories that will neither be impacted nor included in the Preserve System (neutral lands).

Once the final set of species distribution models has been determined, the geographic information system (GIS) calculations can be completed to populate this table and make a basic assessment of how the North County Plan is able to meet the regulatory standards from this basic assessment of acres impacted (take) and acres mitigated and conserved.

3.1.5 Issues to Resolve with the Wildlife Agencies

In coordination with the Wildlife Agencies, the County has determined topics to be addressed and resolved with the Wildlife Agencies. ICF has initiated meetings with the Wildlife Agencies to begin discussion of some of these issues to better understand the Wildlife Agency position relative to the County's position. While many of the issues have relatively simple solutions that can be addressed through clarifying text in the North County Plan that both the County and Wildlife Agencies have generally agreed to, there are a number of issues that are unresolved and will require further discussion, understanding, and negotiation before a solution is found. We have listed several of these issues below and have included our initial assessment of the status of the issue and recommendations for reaching consensus.

3.1.5.1 Covered Species List

The substantial reduction the County made in the covered species list between the 2014 version of the Plan and the 2017 version represented a significant improvement by eliminating species that are not currently listed, are very unlikely to be listed in the future, and therefore do not need coverage

in the MSCP. There are two additional species that ICF recommends that County consider dropping from the covered species list: golden eagle and Engelmann oak.

Engelmann oak is not currently listed by either the ESA or CESA, and it is unlikely to be listed in the future. Although restricted in range to northern San Diego County, it is abundant in the North County Plan Area. Existing County ordinances sufficiently protect mature Engelmann oak even without coverage by the North County Plan. Therefore, this species should be moved from the covered species list to the Watch List.

Also, it does not appear that any of the covered activities listed in Chapter 3 would result in direct mortality of golden eagle (individuals or direct impact on an active nest). Neither the Bald and Golden Eagle Protection Act (BGEPA) or the Fully Protected statute in California applies to eagle foraging habitat. Therefore, there is not likely to be any regulated take that would need a permit. An HCP can serve as an Eagle Conservation Plan under BGEPA, but the permit issuance criteria under BGEPA is a much higher standard than under the ESA. The current standard for issuance of a BGEPA permit is essentially no net loss because USFWS has determined that golden eagle populations cannot sustain any additional take without providing equal or greater offsetting mitigation that results in the maintaining of a stable or increasing breeding populations.

While we recognize that there are concerns for golden eagle conservation in San Diego County and throughout the region, we believe the challenges to developing a comprehensive conservation strategy for the species are significant and would slow the process of completing the North County Plan if it were retained as a covered species. Instead, we recommend that the County work with other jurisdictions, the Wildlife Agencies, other resource agencies, and species experts to develop a regional eagle conservation strategy across all of San Diego County (or across southern California) that could, in turn, be developed into an Eagle Conservation Plan and BGEPA permit.

Finally, we understand that CDFW has requested that light-footed Ridgway's rail be added to the covered species list. This species is both federal and state endangered and has a high affinity for salt marshes and coastal lagoons. While the species does occasionally make longer distance movements upstream from these lagoon and marsh habitats, it is very unlikely to occur often in the North County Plan Area. In the rare instances that it may venture into the Plan Area, it would be restricted to the riparian drainages where impacts are generally prohibited by the North County Plan avoidance and minimization measures and the BMO. Therefore, we do not see a probable scenario where an incidental take permit would be required. Furthermore, given the very rare instances in which it may occur in the Plan Area, it would be difficult to demonstrate mitigation and conservation actions that would be likely to directly benefit the species. Therefore, we do not recommend adding light-footed Ridgway's rail as a covered species.

3.1.5.2 Biological Goals and Objectives

The biological goals and objectives need to, at a minimum, quantitatively establish the amount of habitat for each species (based on species distribution modeling) that will be included in the Preserve System through project mitigation or other additional conservation. The quantitative goals and objectives can be derived from the GIS calculations and summary table discussed in Section 3.2.5, *Restructure Preserve Assembly Methods and Assumptions*.

3.1.5.3 Evaluation of Baseline Preserves

There are many protected open space areas in the North County Plan Area. All of these areas can contribute to the function of the overall Preserve System; however, not all of these lands can be counted as part of the offsetting mitigation and additional conservation under the North County Plan. The existing protected open space areas that can be counted in the North County Plan are areas that have not already been used as mitigation for other impacts and that are (or will be) managed and monitored in accordance with the North County Plan standards. Open space that is not currently managed to these standards could be included if the County can commit to increasing the level of monitoring and management under the Plan. It is our recommendation that the County conduct an inventory of existing open space areas to determine which may be counted as baseline preserves.

3.1.5.4 Hardline Projects

There have been a number of development projects that have received County approval and are considered hardline projects. Any hardline project that does not have anticipated impacts on listed species will not need to be a third-party beneficiary under the North County Plan and will not need to be included in the North County Plan.

If a hardline project will have impacts on listed species, then there are two options. The hardline project can ensure that its design and construction are in compliance with the North County Plan, or the hardline project can seek ITPs on its own (e.g., independent HCP).

3.1.5.5 Fuel Modification Outside of Preserves

Brush management is required by the County to be undertaken in areas where urban development interfaces with open space to reduce fire fuel loads and to reduce fire hazard to homes. On existing preserves in the North County Plan and within many preserves within the South County Plan Area, fuel modification zones were previously defined as an allowable use as part of the management of a preserve. More recent HCP/NCCPs take the approach that for all future development projects' plans and approvals, fuel modification zones must be considered part of the development footprint for determining project impacts and mitigation requirements. Fuel modification zones are not being counted as biological open space for the purpose of determining onsite or offsite credit toward mitigation requirements.

3.1.5.6 RMP Review and Approval

The 2017 Preliminary Draft North County Plan proposes an FRMP as an appendix. The County has been developing this FRMP with the intention that it: (1) support permit issuance of the North County Plan, and (2) allow for the development of site-specific RMPs during implementation without the need for Wildlife Agency review or approval of each RMP. The County has been working closely with the Wildlife Agencies to develop sufficient detail in the draft FRMP to meet both goals. However, the County and the Wildlife Agencies have been struggling to reach agreement on these points given disagreements on allowable uses (e.g., trails) and management and monitoring requirements. If the FRMP does not include enough detail to satisfy the Wildlife Agencies' expectations prior to permit issuance, the Wildlife Agencies will not be able to make the NCCP Findings for adaptive management, and the County may need to allow the Wildlife Agencies to review and approve each RMP, risking long delays in those approvals.

Ultimately, the North County Plan must have enough detail in the conservation strategy or supporting appendices to show the Wildlife Agencies the specific management commitments being made for the Preserve System as a whole. The description of land management must be sufficiently detailed and specific to demonstrate benefits to the covered species. None of these management strategies will be locked in, however, because the adaptive management program will ensure flexibility in implementation. ICF recommends that more detail on management commitment be included in the conservation strategy of the North County Plan to demonstrate to the Wildlife Agencies that preserve management will benefit the covered species. Additional detail can be found in the FRMP appendix, but it should be summarized in the Plan itself.

Regarding Wildlife Agency review and approval of the RMPs, previous HCPs and NCCPs have addressed this issue in different ways. Some plans do not require Wildlife Agency review or approval of future management plans, while others do. Below is a list of how recent and similar HCP/NCCPs have approached this issue.

- **Western Riverside County MSHCP (Approved 2004):** This plan (Western Riverside County RCA 2003) includes general management measures for species and natural communities (see Section 5.2.2 and Chapter 6). The plan calls for preparing reserve unit management plans for each of five units. There does not appear to be any requirement for the Wildlife Agencies to review or approve those management plans.
- **East Contra Costa County HCP/NCCP (Approved 2007):** This plan (ICF 2006) includes a framework management plan with the conservation measures (see page 5-55). Preserve management plans are developed for each group of preserve lands. These management plans are reviewed and approved by the Wildlife Agencies. There are no time limits placed on this review and approval process.
- **Coachella Valley MSHCP (Approved 2008):** Chapter 8 of this plan (CVMSCHP 2007) describes the framework management and monitoring program for the MSHCP. A reserve management plan was to be developed within three years of permit issuance. The plan described the many management plans already in place for each of the six reserve management units in the plan area, so the new MSHCP management plan was to fill gaps in that management planning system. The plan established a reserve management oversight committee and reserve management unit committees to advise the MSHCP implementing entity on best management practices. There does not appear to be a requirement for Wildlife Agency approval of the reserve management plan.
- **Santa Clara Valley HCP/NCCP (Approved 2013):** This plan (ICF 2012) includes management measures in the conservation strategy (see page 5-30). Reserve Unit Management Plans will be prepared for groups of preserve lands based on site-specific inventories and conditions. Each management plan is reviewed and approved by the Wildlife Agencies. A deadline of 60 days is imposed on Wildlife Agency reviews, and if this deadline passes the management plan is automatically deemed complete and approved. This 60-day limit or something like it could serve as a template for the North County Plan. However, attempts by other counties preparing HCP/NCCPs to include similar language were unsuccessful.
- **Yolo HCP/NCCP (Approved 2018):** This plan (ICF 2018) included a template management plan as an appendix to the HCP/NCCP. Reserve unit management plans will be prepared for groups of preserve sites. In addition, site-specific management plans will be prepared for each preserve property consistent with the reserve unit management plan. The Wildlife Agencies will review

and approve the reserve unit management plans and the initial site-specific management plan, but not subsequent revisions to that plan as long as revisions or updates are minor (the plan specifies the conditions under which the Wildlife Agencies would approve revisions). There are no time limits placed on Wildlife Agency review.

ICF recommends developing the management and monitoring measures in the conservation strategy in enough detail to satisfy the Wildlife Agencies permit issuance criteria now. That approach would eliminate the need for Wildlife Agency approval of the RMPs once the North County Plan is adopted.

3.2 Recommended Approach

In this section, ICF outlines six key recommendations for moving forward with the North County Plan that are based on ICF's interviews with County staff, interviews with the Wildlife Agency staff involved in the Plan to date, and our experience preparing and implementing HCPs and NCCPs for counties throughout California. ICF has also witnessed some of the issues first-hand as we have been involved in the North County Plan periodically. We believe that these six changes, listed in no particular order, are essential to the successful completion of a North County Plan.

3.2.1 Approach to Problem Solving and Issue Resolution

Summary: The process for problem solving and issue resolution has been recognized by both the County and Wildlife Agency staff as an impediment towards progress on the North County Plan. Many of the technical details of the Plan have been discussed and feasible solutions have been proposed, so much of what remains are more challenging policy issues that the County and Wildlife Agencies are having difficulty resolving.

Background: To date, the details of the North County Plan have been discussed and negotiated mostly by County staff working closely with local Wildlife Agency staff. This approach has been sufficient for many issues, but it has been ineffective when staff reach significant disagreements. When a policy disagreement arises, staff elevate the issue to leadership for direction, however, leadership may also fail to reach a clear agreement on key issues. Without the active involvement and commitment to resolution by leadership of the County and both Wildlife Agencies, the parties will continue to face an impasse on key issues and be unable to resolve them.

In our experience, successful HCP/NCCPs have a clear and effective problem solving and issue resolution process that includes:

- At least one local champion of the plan, potentially from the County executive management or a steering committee member, who rallies support when needed and can step in to help resolve difficult political and policy issues with committed executive leadership at each of the Wildlife Agencies.
- An engaged leadership team at the County and the Wildlife Agencies that is committed to identifying issues and resolving them to complete the plan. The leadership team attends meetings as necessary to resolve policy or technical challenges that cannot be resolved at the staff level. Leadership helps to break any impasse by negotiating compromises that may differ from staff recommendations.

- An effective issue resolution process that includes clear and quick elevation of unresolved issues up to specific executives and, if necessary, up to elected or appointed officials of each agency so that they can resolve the issue and provide direction to staff.
- A senior planning staff person who directs the consultants and is responsible for completing the HCP/NCCP. This person becomes intimately familiar with all aspects of the plan. If someone with these qualifications is not available, local agencies have hired a contract project manager who can be dedicated to the project and work on their behalf.
- An expert team with extensive experience preparing HCP/NCCPs, who has three primary roles: (1) lead authors of plan document(s); (2) a mediator to help resolve differences between the County and the Wildlife Agencies; and (3) trusted advisors who can bring options and alternatives based on their understanding of current best practices for HCP/NCCPs.

Recommended Approach: In order to create a solution-oriented process, ICF recommends that:

1. The County and Wildlife Agencies individually commit at the highest possible levels of each organization: (1) to dedicate the staff resources necessary to complete the North County Plan in a timely fashion and (2) for leadership to be regularly engaged in the process in order to solve problems and resolve issues that arise, enabling rapid progress.
2. The USFWS and CDFW identify a management point of contact for the project at their respective Field Office or Regional Office who can participate regularly in policy meetings, make decisions on behalf of the agency, and negotiate with County management on elements of the North County Plan with important policy implications.
3. The County and Wildlife Agencies establish regular meetings with agency leadership to: (1) review project progress and schedule commitments, and (2) if needed, negotiate compromises on policy or technical issues that have reached an impasse at the project staff level.
4. The County and Wildlife Agencies agree to a clear and effective issue resolution process that includes quick elevation of unresolved issues up to specific executives and, if necessary, up to the leadership of each agency so that they can resolve the issue and provide direction to staff to move forward.
5. The County identifies a small, core group of PDS and DPR staff to lead Plan development and coordination with the individuals preparing the North County Plan and EIR/EIS. The North County Plan is a consistent high priority in their workload.
6. The County empower a qualified senior planner or contract project manager to lead the core group and lead negotiations with the Wildlife Agencies on behalf of the County.
7. The County hire individuals with extensive experience preparing NCCPs and HCPs to lead all aspects of Plan preparation. The individuals must have a mix of senior strategic advisors and technical staff with HCP experience to efficiently and cost-effectively prepare the Plan. The individuals will organize and facilitate all Wildlife Agency meetings to serve as an “honest broker” and neutral leader of the HCP/NCCP process.
8. The County, in meetings with the Wildlife Agencies, focus all discussions on the proposed text, data, and maps in the North County Plan itself, rather than on concepts or general issues. Always relate issues and requirements back to the Wildlife Agencies’ permit issuance criteria, what is needed to get a plan approved, and what the County can afford and implement. (Also see Section

3.2.3, below.) If issues cannot be resolved quickly at the staff level, elevate the issue to leadership to resolve at their next policy meeting.

9. The County engage key stakeholders to build support for the Plan from key constituencies including the building industry and environmental groups. This could take the form of targeted meetings or a formal stakeholder group.

3.2.2 Develop North County Plan Independent of South County Plan

Summary: One of the barriers to progress on the North County Plan has been the County’s use of the South County Plan conceptually as a strong template for the North County Plan. However, the South County Plan is now over 20 years old and should no longer serve as a basis for the North County Plan because approaches to HCP/NCCP development and implementation have changed substantially over the last two decades based on new regulations, lessons learned, better available science, and better methods. The County has maintained that the South County Plan and North County Plan should work together as one consistent MSCP program, and it is true that the North County Plan should strive for consistency where appropriate. However, the North County Plan is a new HCP/NCCP that needs to meet current best practices and regulatory standards.

Background: The South County Plan was adopted under the original NCCP Act, passed in 1991. As described in Chapter 1, that law was repealed and replaced in 2002 by a revised and expanded NCCP Act that took effect January 1, 2003. The new NCCP Act, which the North County Plan must adhere to, has substantially more regulatory requirements, a higher conservation standard to meet, and more procedural steps than the original NCCP Act under which the South County Plan was approved. Also, when the South County Plan was approved in 1998, it was approved as a “Subarea Plan” that was under the umbrella of the San Diego MSCP, also approved in 1998 (MSCP 1998). An important difference between the South County Plan and the North County Plan is that the North County Plan is not part of a broader umbrella plan and therefore must stand on its own as an independent HCP/NCCP. Consequently, the North County Plan must have substantially more detail and information than found in the South County Plan (as described in Section 3.1, *Evaluation of Current Plan*), which benefitted from a separate umbrella document not available to the North County Plan.

In addition, since the South County Plan was adopted over 20 years ago, ESA Section 10 regulations and best practices for an HCP/NCCP have evolved substantially. The North County Plan must meet current standards and is expected to adopt current best practices. Examples of federal standards and regulations that have changed since the South County Plan was adopted include: “No Surprises” Rule (USFWS 1998) and subsequent legal decisions, Five-Point Policy (USFWS 2001), Permit Revocation Rule (USFWS 2004), and the new HCP Handbook (USFWS 2016). Also, an important court decision in 1999 over the Natomas Basin HCP near Sacramento changed the standards in HCPs for cost analyses and funding assurances.

Recommend Approach: ICF recommends the following:

1. Use the recent HCP/NCCPs in California that the Wildlife Agencies agree are models for best approaches for the North County Plan, specifically: the Yolo HCP/NCCP (approved in 2018), Santa Clara Valley HCP/NCCP (2013), Coachella Valley MSHCP (2008), and East Contra Costa County HCP/NCCP (2007).

2. Apply to the North County Plan lessons learned from 20 years of implementing the South County Plan. Some aspects of implementation have worked well, while others could be improved as they are incorporated into the North County Plan.
3. Align the South County Plan and North County Plan where feasible and consistent with current regulations and best practices. There will be important differences in the two plans, but the County can design the North County Plan to be as consistent as possible with the South County Plan.

3.2.3 Focus on Regulatory Requirements and Permit Issuance Criteria

Summary: Wildlife Agency requests for changes to the North County Plan may include changes that are essential for the Wildlife Agencies to make findings for permit issuance, and changes that are preferred or simply suggested improvements that are not essential to permit issuance. The County has difficulty distinguishing between the two and identifying the regulatory requirement for some of the changes being requested.

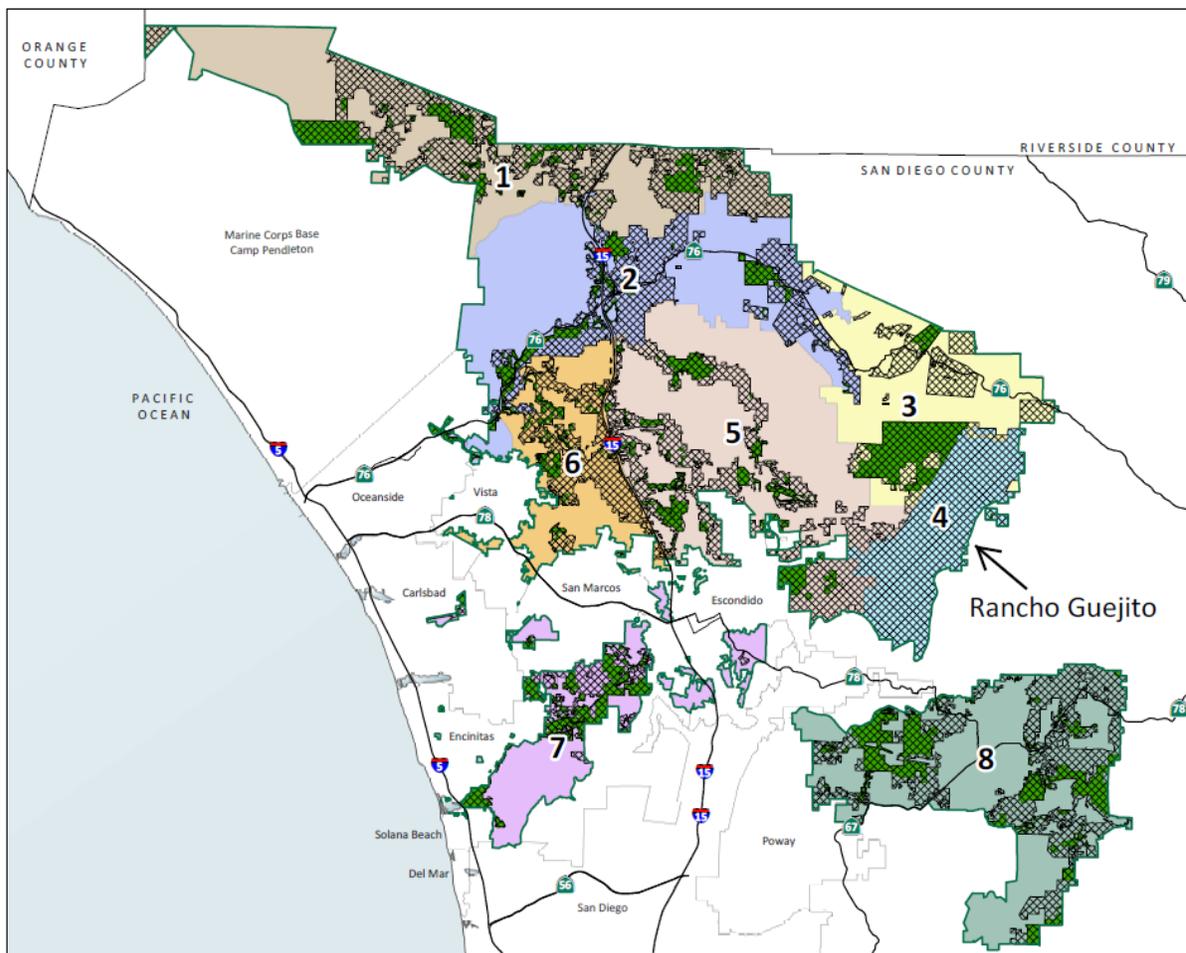
Background: Over the years, clarity has been lost regarding regulatory requirements of an HCP/NCCP and what criteria must be met for the agencies to make their findings to issue permits. Discussions in Wildlife Agency negotiation meetings and project-specific “batching” meetings often overlap, making it difficult to track and resolve issues specific to the North County Plan structure, policies, and analysis. A clearer, more focused approach is needed to identify and resolve issues quickly and incorporate only those changes into the North County Plan necessary for permit issuance.

Recommended Approach: ICF recommends using a neutral third-party consultant to help keep the negotiations focused on the relevant issues in the North County Plan. The consultant would assist the County in presenting the assumptions, analysis, policies, and implementation tools developed in the Plan, such that the Wildlife Agencies could understand how each step of the plan development and element of the plan implementation would link back to the regulatory requirements and each permit issuance criterion. In this way, the Wildlife Agency input and request for changes would be focused on the key issues essential for successfully completing the Plan.

3.2.4 Remove Rancho Guejito from the Plan Area

Summary: Rancho Guejito is a large (approximately 20,000-acre) private ranch east of Escondido, on the eastern edge of the proposed North County Plan Area (Figure 3-1). Current land uses on the ranch include single-family homes, livestock grazing, row crops, orchards, vineyards, and a permitted Small Winery. The landowner has plans to expand both the vineyards on the site and the winery facilities. Currently, there are no large-scale development plans for the site. The landowner has indicated to the County that they are skeptical of participating in the North County Plan, either as a covered activity (i.e., getting coverage for development projects) or as a conservation site for the Plan. Because of the property size and future plans of this landowner, there is a risk that the landowner may actively oppose the North County Plan if they are included in it. However, the 2017 Preliminary Draft North County Plan relies on Rancho Guejito as a location for potential mitigation and conservation.

Figure 3-1. Location of Rancho Guejito Within the Current North County Plan Area



Background: Including properties in the North County Plan gives landowners the option to either develop their site consistent with the North County Plan or sell at fair market value (in fee title or conservation easement) all or a portion of their property to support the North County Plan Preserve System. The County has been considering creative ways to “count” portions of the Rancho Guejito property towards the North County Plan without acquiring the land or dedicating a permanent conservation easement. While these options to a conservation easement could potentially be pursued under an individual HCP or some other type of mitigation/conservation plan, ICF’s conclusion is that these approaches would be difficult to incorporate into the North County Plan. The North County Plan is receiving take authorization and strong “No Surprises” assurances from the Wildlife Agencies for permanent impacts. In exchange, the County must guarantee that mitigation and conservation in perpetuity.

The Rancho Guejito property supports substantial high-quality habitat for some of the proposed covered species, particularly Stephens’ kangaroo rat. Arroyo toad and southwestern pond turtle are also known from Guejito Creek on the property, and the large areas of grassland are suitable for burrowing owl. However, protecting this site is not essential for the North County Plan conservation strategy. Some mitigation and conservation for these species can be found elsewhere in the North County Plan Area, although the total available habitat would potentially further limit the amount of

impacts (take) that could be permitted for these species. Removal of Rancho Guejito may substantially limit the effectiveness of the North County Plan as a species permitting and mitigation tool for Stephens' kangaroo rat in particular.

ICF has encountered situations like this in other HCP/NCCPs, where a specific parcel or area had to be removed from a plan area because the plan was incompatible with the land uses on the site, or a particular site threatened the viability of the plan.

Recommended Approach: ICF recommends removing Rancho Guejito from the North County Plan Area. This will remove all of their potential covered activities and potential conservation areas from the Plan. If Rancho Guejito requires take authorization in the future for their development projects, they can request that the County formally amend the North County Plan to include their site (and pay for that amendment) or pursue their own incidental take authorizations with the Wildlife Agencies. Alternatively, if the County decides to pursue an East County MSCP, Rancho Guejito could be included in the plan area for that MSCP as it is located immediately adjacent to the western boundary of that plan area.

If the amount of mitigation and conservation remaining in the Plan Area were insufficient to meet mitigation needs once Rancho Guejito were removed, then the County could consider other opportunities to add additional mitigation to the Plan Area through restoration or addition of other areas of suitable habitat. The Lake Henshaw/Warner Springs area includes extensive grasslands suitable for burrowing owl and supports a large population of Stephens' kangaroo rat. We recommend that the County consider investigating this option further.

3.2.5 Restructure Preserve Assembly Methods and Assumptions

Summary: A key barrier to progress on the North County Plan has been the lack of clarity in the Plan regarding how the required conservation lands would be assembled, and how those lands would meet all permit issuance criteria of the ESA and NCCP Act. The 2017 Preliminary Draft North County Plan relies on the same approach to assembling the Preserve System as the South County Plan—primarily through a mapped PAMA in which conservation would be focused. The Wildlife Agencies have maintained that the PAMA approach does not provide enough certainty of conservation outcomes in order to make their permit issuance findings. The County maintains that this approach is necessary for consistency with the South County Plan.

Background: HCPs and NCCPs today must have clear, quantitative descriptions of the conservation to be achieved. This can be expressed in terms of acres of natural communities or acres of modeled habitat for covered species. The plans must also demonstrate that assembling the Preserve System to offset that authorized take will be feasible and will result in the outcomes required by the NCCP Act, such as wildlife connectivity, preserving sufficient habitat for covered species to sustain viable populations, and preserving environmental gradients. The land acquisition strategy must also be sufficiently flexible so as not to rely too heavily on certain acquisitions or certain acquisition mechanisms. The approach must also be consistent with the current land use planning process.

Recommended Approach: After extensive review, ICF believes that the PAMA approach will not meet current permit issuance criteria because it is unclear whether and how the conservation strategy can be achieved. We recommend a new approach that combines many aspects of the PAMA, but in a more transparent, clear, and flexible approach to assembling the Preserve System. The new approach would be similar to more commonly used approaches in recent, approved HCP/NCCPs. Specifically, ICF recommends:

1. The County and Wildlife Agencies develop a common understanding of how the Preserve System will be assembled and this must be clearly described in the Plan.
2. Improve the assumptions and mechanisms associated with the PAMA Concept as a “Priority Acquisition Area” to direct preserve assembly. The PAMA name is a holdover from the South County Plan, and the County may want to consider different terminology if the PAMA no longer conveys its purpose accurately for the North County Plan. Renaming it would make it clear to the Wildlife Agencies that the County is not overly relying on the South County Plan model and is open to current approaches.
3. Add more tools to the Plan by which to assemble the Preserve System. Currently, the primary mechanisms in the Plan to assemble the Preserve System are: (1) onsite land dedications by private developers and, (2) County acquisition of open space lands. ICF recommends adding more tools for land acquisition consistent with current HCP/NCCPs, including options such as: (1) developers dedicating onsite lands to the County to manage and monitor, along with an endowment to pay for such activities; (2) developers paying a larger fee to develop more of their site and the County using those funds to acquire offsite conservation land; and, (3) using mitigation banks.
4. Set clear and measurable targets for land acquisition by land cover type and modeled habitat for each covered species. For the Wildlife Agencies to be able to make their permit issuance findings, the County must commit to specific amounts and configurations of land acquisition by natural community type and by modeled habitat for covered species.

Table 3-2 outlines a straightforward table structure needed to define the assumptions and approach used for the conservation analysis. Being able to fill out this table will help to improve the communication between the County and Wildlife Agencies on how the Preserve Assembly will occur.

Table 3-2. Table Structure for Conservation Analysis

	Impacts						Conservation						Neutral Lands (not impacted or conserved)	Total in Permit Area
	Hardline Projects	Private Development Projects Processed by the County	Exempt Single-Family Home Development	County Projects	Totals Acres	Totals Percent	Existing Protected Open Space (no new mitigation credits)	County Preserves (sine Planning Agreement)	Hardline Preserves	Conservation through PAMA and BMO	Additional Conservation through Acquisitions	Totals Acres		
Biometric														
Natural Vegetation														
Scrub	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chaparral	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grassland, Meadow and Seep	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vernal Pool	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bog and Marsh	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Riparian and Bottomland	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upland Woodland and Forest	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Natural Habitats	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Covered Species														
Pond Turtle (example)														
Suitable Breeding Habitat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suitable Upland Habitat	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Example Table Organization and Format

3.2.6 Establish Clear Guidelines for Trails in Preserves

Summary: An important part of the MSCP preserve system is public access on existing and new trails. The County has recently completed a detailed Preserve Trail Guidelines document (April 2018) to support the compatible siting and use of trails within preserves. While there have been ongoing challenges with the Wildlife Agencies over proposed and existing trails in North and South County Plan preserves, it is hoped that this guidance document will help to resolve these past and potential future trails conflicts. A secondary component to trail siting and usage is estimation of the potential impacts associated with different trail types in different habitats. The recommended approach is a combination of the application of the County’s Preserve Trail Guidelines with a method to determine the potential effect of the trail on the habitat value (and mitigation credit value within the North County Plan).

Background: Recreational trails have typically been considered “conditionally compatible” with preserve areas in the MSCP. However, the conditions under which they are compatible have not been clearly established. The siting and use of trails within preserves has become a significant concern of the Wildlife Agencies in recent years. Certain proposed and existing trails in both the North County and South County Plan areas have resulted in an extended debate regarding the potential impacts they may have on biological resources and the appropriate balance between conservation and public access. Historically there has been a lack of clear guidance from the scientific literature on the biological effects of trails, and no clear policy from the Wildlife Agencies. The siting and use of each trail need to consider the unique set of biological resources at that location. The County’s Preserve Trails Guidelines (County of San Diego 2018c) provide a clear set of guidelines for trail siting and management. ICF has developed rule sets for trail construction and use that have been successfully applied in other similar plans (e.g., Santa Clara Valley HCP/NCCP, East Contra Costa County HCP/NCCP, and Western Placer County HCP/NCCP). For trails in North County Plan preserve areas, the rules for siting and usage must be informed by an assessment of the potential impacts on covered species and natural communities. Therefore, the approach includes the development of a process to assess the impact and the remaining biological value available to count toward mitigation credit within the preserve.

Recommended Approach: Inform the use of the County Preserve Trail Guidelines for siting and managing trails within preserves by providing an assessment of the potential impact of trails and the trade-off between increased public access and potential decrease in biological mitigation value.

1. Conduct a comprehensive review of the current scientific literature and summarize and categorize the types of biological impacts that may occur from different trail types and usage patterns in various habitat types and on each covered species. This review will ensure that trail guidelines are based on the best available science. Review and summarize trail guidance approaches used in other HCP/NCCPs.
2. Determine reasonable impact footprints (buffer distances) from trails depending on trail type and habitat.
3. Use the County Preserve Trail Guidelines and integrate a process to allow the County to decide where to construct or open new trails based on a pre-established calculation of how trail corridors can and cannot count towards North County Plan requirements (i.e., mitigation credit value). The calculation will be based on the trail type/use and location. For example, if the County decides to build a trail in an area more sensitive to impacts, the established buffers would be used to calculate how much of the trail corridor would be subtracted from

mitigation/conservation credit. Trails located in other less sensitive areas may have only a narrow corridor subtracted from mitigation/conservation credit.

4. Identify areas that may have minimal to no public access to protect the full mitigation value and functional integrity of the preserve.
5. Develop a decision tree, matrix, or other form of rule set that integrates the information from previous steps to provide clear guidance and a process for trail siting and usage.

The County should consider using a combination of the County's Preserve Trail Guidelines with a rule set to determine potential trail impacts that would help the County determine the biological mitigation value desired from a given area, and then the ability to weigh the trade-off between that mitigation value and public access.

3.2.7 Set Measurable Take Limits Based on Habitat

Summary: The 2017 Preliminary Draft North County Plan does not set clear, measurable limits on take of habitat for each covered species, or loss of each natural community. These limits are necessary for the Wildlife Agencies to make their permit issuance findings.

Background: To issue permits, the Wildlife Agencies must make findings under the ESA and NCCP Act that the conservation plan will mitigate for the impacts on the covered species to the maximum extent practicable (ESA) and provide sufficient conservation of each covered species (NCCP Act). This requires clear statements of maximum impacts on each covered species. The current best practice is to express these impacts in terms of the amount (acres) of habitat lost, rather than the number of individuals or number of populations. The permits then set the limits of take authorization in terms of this habitat loss.¹⁴ This can be accomplished using best available modeled habitat information. Impacts are then tracked during implementation using these models. Take limits will remain unchanged for the life of the permit because they are tied to the original models that will not change for the purposes of plan compliance. Species models may be updated to improve how conservation or monitoring occurs, but models are static for plan compliance. This approach is consistent with how the South County Plan is implemented as well as several other more recent HCP/NCCPs. For species without reliable models (e.g., covered plants, cuckoo), impacts can be tracked according to the number and location of occurrences (i.e., populations) lost.

Recommended Approach: ICF recommends the following approach to addressing this key structural and data issue with the Plan:

1. Move all discussion of maximum allowable impact on the covered species to the effects analysis chapter, according to the new, recommended outline (see Section 3.1.2, *Document Organization*). Currently, what information exists is buried in an appendix with overly complicated data reported for each species.
2. Estimate the maximum amount of impact on each covered species by overlaying models of species distribution with maps of expected development footprints. Assume more avoidance within the PAMA and less avoidance outside of it.
3. Summarize the expected levels of take by natural community and covered species habitat in two tables using a format similar to what is shown in Table 3-2.

¹⁴ Removing more habitat than what the permits allow is possible, but requires a formal permit amendment.

3.2.8 Strengthen the Implementation Structure of the Plan

Summary: The Wildlife Agencies have expressed concern about whether the County will dedicate sufficient funds and attention to implementing the North County Plan. The Wildlife Agencies have concerns about the County’s proposal to implement the North County Plan using the same model as the South County Plan—splitting duties and using County staff from multiple departments.

Background: An important metric of success in any HCP/NCCP is that the implementing entity is following through with all commitments made in the Plan. In order to achieve this, the implementing entity must have sufficient staff resources and sufficient focus to accomplish the HCP/NCCP goals. Local agencies who adopt HCPs and NCCPs are implementing their plans using a variety of institutional structures in order to ensure this dedication and focus, including a Joint Powers Authority (often for multiple agency HCPs) or creating a Conservancy (as done in Rancho Palos Verdes, Contra Costa County, and the Natomas Basin). Other HCPs and NCCPs have chosen to embed staff within existing local agencies (e.g., San Joaquin Council of Governments, Butte Council of Governments) or create a new public agency to oversee the plan (e.g., Santa Clara Valley Habitat Agency). The common thread of all of these implementation models is dedication and focus. In all cases, one or more staff are dedicated full time to implementing the HCP or NCCP and ensuring its compliance with the permits and its success.

Recommended Approach: ICF recommends a similar implementation approach for the North County Plan as other current NCCPs are using that ensure staff are dedicated full time and focused on successful implementation:

1. Assign staff dedicated full time to ensure HCP/NCCP compliance. The same staff who implement the North County Plan could also be dedicated to overseeing HCP/NCCP implementation of the South County Plan, increasing efficiency.
2. Identify a separate and dedicated team to oversee HCP/NCCP implementation and compliance by the County in order to ensure its success. These staff would advise the departments who will implement the HCP/NCCP (PDS, DPW, DPR, and Department of General Services). The HCP/NCCP staff could be part of PDS, DPR, or another department. Day-to-day implementation of the HCP/NCCP would still be accomplished by each County department:
 - Reviews of private development projects to determine if proposed projects meet North County Plan standards (PDS).
 - Reviews of public infrastructure or operations and maintenance projects to ensure they meet North County Plan standards (DPW, DPR, and Department of General Services).
 - Management and acquisition of County-owned Preserves (DPR).
3. Identify sufficient funding in the North County Plan to support this implementation structure. The current funding allocation for plan administration appears to be insufficient. More funding will be needed to ensure the dedication and focus of County staff to implement the North County Plan.

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Appendix A

Biographies of Report Authors

This report was written by David Zippin, Ph.D., Scott Fleury, Ph.D., and Pat Atchison, who have been leading the preparation of HCP/NCCPs for over 25 years. Brief biographies of each author are presented below.

David Zippin, Ph.D., leads the large habitat conservation planning practice at ICF. He specializes in compliance with the ESA and CESA and the preparation and implementation of HCPs and related conservation plans and strategies. He also has expertise in NEPA compliance, particularly for HCPs. David has overseen, managed, or been part of the technical team for over 65 HCPs and their environmental documents in 26 states over the last 30 years. He has managed and overseen completion of all five of the NCCPs approved or expected to be approved in northern California since the 2003 NCCP Act was enacted. In addition, David regularly provides training in endangered species compliance and habitat conservation planning. David is the co-author of the award-winning book *Understanding the Habitat Conservation Planning Process in California: A Guidebook for Project and Regional Conservation Planning*, published by the Institute for Local Self Government. For the last 10 years, David has taught habitat conservation planning at the USFWS's National Conservation Training Center in West Virginia to hundreds of USFWS staff, HCP applicants, and HCP consultants nationwide. He also teaches at the University of California, Davis, Continuing and Professional Education Program and for the CDFW Permit Academy (to CDFW staff).

Scott Fleury, PhD., has over 28 years of experience as a research biologist and environmental consultant focusing on the development of ESA compliance strategies. As a senior conservation biologist and leader of ICF's habitat conservation planning practice in Southern California, his skills and responsibilities include conservation planning project management; development of adaptive management and monitoring plans; collection and analysis of large-scale biological and geographic data; survey and identification of high-priority conservation areas; species habitat suitability modeling, wildlife movement and connectivity modeling, and field studies on target species; reserve design; wildlife and resource agency negotiation; and coordination of public and private interests at the local, state, and federal level to achieve desired conservation goals.

Patrick Atchison has over 29 years of experience in environmental planning and has been involved in a number of resource management and habitat conservation studies. He brings a unique combination of experience with GIS and environmental planning studies and an understanding of how to maximize the analytical capabilities of GIS to create innovative solutions for environmental issues. He has served as project manager/GIS manager for a number of large conservation planning projects. He has worked closely with clients, wildlife agencies, and other stakeholders in all aspects of the preparation of HCPs including, but not limited to, establishing baseline environmental conditions, developing a covered species list, conducting species modeling, inventorying covered activities, estimating impacts, determining conservation targets and plan goals and objectives, defining a conservation strategy, conducting a conservation analysis, and defining preserve management and monitoring requirements. He was the lead author of the Orange County Transportation Authority (OCTA) M2 NCCP/HCP (approved in November 2017) and continues to support implementation of this conservation plan.

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Appendix B

Cost Comparison of County Options

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Table B-1. Cost Comparison of County Options

Variable	Project-by-Project ESA/CESA Compliance	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan	<i>FOR REFERENCE ONLY</i> 2017 Preliminary Draft North County Plan¹ (in 2018 dollars)	Sources, Notes, Assumptions
Total anticipated impacts (private and public) (acres)	34,837	34,837	34,837	34,837	34,837	36,670	Revised North County Plan and HCP/2081 (Public-Private) both assume 5% reduction in impacts covered from 2017 Preliminary Draft North County Plan due to refinements expected by ICF.
Total anticipated County impacts (acres)	2,500	2,500	3,500	3,500	3,500	3,500	All permitting options assume 3,500 acres of County impacts, which is the midpoint of 2019 County estimate of 3,000 to 4,000 acres. Project-by-Project ESA/CESA Compliance and Conservation Strategy options assume the County would aggressively avoid impacts to minimize permitting needs, reducing impacts requiring permits and mitigation to an assumed 2,500 acres.
Anticipated mitigation ratio	4.00	3.50	3.00	2.50	2.25	2.81	2017 Preliminary Draft North County Plan ratio is a calculation of total preserve size to total anticipated impacts. Ratios for the Revised North County Plan and both HCP/2081 options are rough estimates by ICF of what is feasible based on other HCPs and NCCPs. Conservation Strategy and Project-by-Project ESA/CESA Compliance options ratios reflect the inefficiency of project-by-project mitigation negotiations.
Total anticipated preserve size or mitigation lands (acres)	139,346	121,928	135,846	87,091	78,382	102,930	2017 Preliminary Draft North County Plan data from Table B-4 (Natural Community Conservation Targets). Calculated by applying the anticipated mitigation ratio to the acreage of total anticipated impacts.
Total anticipated preserve or mitigation land managed by County (acres)	14,000	12,250	10,500	42,683	38,415	50,446	Preserve size for Revised North County Plan and HCP/2081 (Public-Private) calculated using the same proportion used in the 2017 Preliminary Draft North County Plan. For Revised North County Plan and HCP/2081 (Public-Private) options, assumes that the County manages and monitors entire preserve system acquired by all local, state, and federal funding sources. County Only and Project-by-Project ESA/CESA Compliance options assume County Only managed land to mitigate their own impacts.
Acquisition to date by County purchased with General Fund (acres)	3,456	3,456	3,456	3,456	3,456	3,456	Assumes 50% of land acquired to date in the North County Plan (6,911 acres) was acquired with General Fund monies and can be applied as mitigation credit for County impacts. Source: 2018 MSCP Information Sheet
Anticipated additional land acquisition by County (acres)	10,545	8,795	7,045	5,295	4,420	8,702	Land acquired by County only for mitigation for species impacts or NCCP compliance (County Parks would acquire more land than this for open space and recreation). Revised North County Plan and HCP/2081 (Public-Private) calculated by applying the anticipated mitigation ratio to the total anticipated County impacts and subtracting the acreage of County acquisitions to date with General Fund. Remaining options calculated by subtracting the County acquisitions to date with General Fund from the total anticipated Preserve size.
Avg. annual cost for management and monitoring of preserve system or mitigation lands (dollars per acre per year)	\$170.00	\$170.00	\$153.00	\$153.00	\$170.00	\$141.00	Revised North County Plan based on current average annual management and monitoring cost per acre (County DPR data). Project-by-Project ESA/CESA Compliance and Conservation Strategy options assume same cost as North County Plan because the County is expected to apply the same or a similar approach on mitigation sites. HCP/2081 options apply slight discount because of lower monitoring and management requirements without an NCCP (e.g., no natural community monitoring).

Variable	Project-by-Project ESA/CESA Compliance	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan	FOR REFERENCE ONLY	Sources, Notes, Assumptions
						2017 Preliminary Draft North County Plan ¹ (in 2018 dollars)	
Premium applied for management and monitoring	0%	0%	-10%	-10%	0%	n/a	See row above.
Costs to County²							
Total cost to County to manage/monitor (50 yrs.)	\$85,000,000	\$74,400,000	\$80,300,000	\$326,500,000	\$326,500,000	\$355,500,000	Calculated by multiplying the average annual monitoring and management cost per acre by the total anticipated preserve managed by County over the fifty-year permit period.
Total developer mitigation fee to offset County management costs (50 yrs.)	-	-	-	\$97,300,000	\$129,800,000	-	Mitigation fees would only be part of the Revised North County Plan and HCP/2081 (Public-Private) to help offset County management and monitoring costs in perpetuity, similar to other current HCP/NCCPs in CA. These fees would offset 50% of management and monitoring costs of land County manages minus the land acquired to mitigate for County impacts (on which the County would pay full management and monitoring costs). A 25% higher fee is applied for the Revised North County Plan option because it comes with greater benefits to developers (State No Surprises assurances).
Adjusted total cost to County for management and monitoring (50 yrs.)	\$85,000,000	\$74,400,000	\$80,300,000	\$229,200,000	\$196,700,000	\$355,500,000	Calculated by subtracting the developer mitigation fee from the total costs to the County to manage and monitor the preserve.
Total Plan Administration Cost to County	-	-	\$4,250,000	\$12,750,000	\$17,000,000	\$13,600,000	Assumes 25% greater program administration costs for Revised North County Plan than the 2017 Preliminary Draft North County Plan. Assumes 25% lower administration costs for the HCP/2081 (Public-Private) option than 2017 Preliminary Draft North County Plan. Assumes 75% lower administration costs for the HCP/2081 (County Only) option than the 2017 Preliminary Draft North County Plan.
Total County Project Permitting Costs	\$37,500,000	\$37,500,000	-	-	-	-	Applies only to the Conservation Strategy and Project-by-Project ESA/CESA Compliance options; assumes an average of 10 County projects are completed per year over the 50-year permit period (500 projects total), each with a 7-acre footprint (3,500 acres total impact). Average ESA permitting cost per project (and extra CEQA costs for bio) estimated at \$75,000.
Total County land acquisition cost (50 yrs.)	\$146,400,000	\$118,400,000	\$157,600,000	\$118,400,000	\$98,800,000	\$194,600,000	Applies \$22,366/acre land acquisition cost (top end of land cost estimate in 2017 Preliminary Draft North County Plan) to roughly account for land cost inflation (p. 8-4; \$21,100/acre) + 6% transaction costs
Total Cost to County (50 yrs.)	\$268,900,000	\$230,300,000	\$242,200,000	\$360,400,000	\$312,500,000	\$563,700,000	Sum of four cost rows above: adjusted total costs to County to for management and monitoring, total plan administration cost to County, total County project permitting costs, and total County land acquisition costs.
Difference from lowest cost option	17%	0%	5%	56%	36%		
Average Annual Cost to County	\$5,400,000	\$4,600,000	\$4,800,000	\$7,200,000	\$6,300,000	\$11,300,000	Total cost divided by 50-year permit period.
Total Cost per acre County impact (i.e., value to County)	\$108,000	\$92,000	\$69,000	\$103,000	\$89,000	\$161,000	Total cost divided by County impact acres covered (2,500 or 3,500 acres), rounded to nearest \$1,000

Variable	Project-by-Project ESA/CESA Compliance	Conservation Strategy	HCP/2081 (County Only)	HCP/2081 (Public-Private)	Revised North County Plan	FOR REFERENCE ONLY 2017 Preliminary Draft North County Plan ¹ (in 2018 dollars)	Sources, Notes, Assumptions
Costs to Private Developers³							
Private development impacts covered or built (acres)	31,337	31,337	31,337	31,337	31,337		Total anticipated impacts minus total County anticipated impacts.
Proposed mitigation fee per acre (option in-lieu of land dedication)	-	-	-	\$21,500	\$20,500		Revised North County Plan fee is midpoint of the relevant fees from the East Contra Costa County HCP/NCCP and Santa Clara Valley HCP/NCCP, the two most recent and analogous plans to North County Plan. HCP/2081 (Public-Private) fee is 5% more than Revised North County Plan fee to account for higher land acquisition costs (2.5/2.25 = 11% higher) and 25% lower per acre management and monitoring costs (net change estimated at 5% more because land costs are a much greater share of costs than management and monitoring). Rough fees are rounded to nearest hundred dollars. Fees are hypothetical for calculation purposes only. Actual fees, if applied, would be calculated based on actual estimated mitigation costs. Excludes special fees for impacts to land cover types that will require restoration; special fees will fully offset those costs.
Premium applied for mitigation costs	100%	75%	100%	0%	0%		Assumes double or approximately double the cost for an average project due to the need for far more project surveys, higher mitigation ratio, higher per acre management and monitoring costs, and higher endowment costs. Excludes cost due to longer permitting process times. Accounts for fact that some projects will have relatively no cost if no listed species found and other projects will have more than double the mitigation costs. Average additional costs are conservative and likely higher.
Total developer mitigation costs	\$1,347,400,000	\$1,179,000,000	\$1,347,400,000	\$673,700,000	\$642,400,000		Applies the assumed premiums for the Project-by-Project ESA/CESA Compliance, Conservation Strategy, and HCP/2081 (County Only) options to the total developer mitigation cost identified for the HCP/2081 (Public-Private) option.
Average time delay costs of one additional year of species permitting (i.e., opportunity costs)	\$783,400,000	\$391,700,000	\$783,400,000	-	-		Based on report by Economic & Planning Systems (2014) on time savings of regional HCPs and NCCPs of between three months and three years. They estimated opportunity costs of \$500,000 for an average 20-acre residential development project in San Diego County (= \$25,000/acre). For Conservation Strategy option, applied 50% discount factor to account for easier mitigation negotiation under regional strategy.
Total developer costs	\$2,130,800,000	\$1,570,700,000	\$2,130,800,000	\$673,700,000	\$642,400,000		Sum of total developer mitigation costs and average time delay costs.
Difference from lowest cost option	232%	145%	232%	5%	0%		

Notes:

¹ All data for 2017 Preliminary Draft North County Plan from Table 8-1, unless otherwise noted. All costs inflated to 2018 dollars.

² All costs in this section rounded to nearest \$100,000 unless otherwise noted.

³ Costs to Private Developers were not specifically identified in the 2017 Preliminary Draft North County Plan

Citations: Economic & Planning Systems (2014). Economic Effects of Regional Habitat Conservation Plans. Prepared for California Habitat Conservation Planning Coalition, Davis, CA. March. Available at: <http://www.buttehcp.com/documents/Documents/Other%20Documents/Economic%20Benefits%20White%20Paper%20-%20CHCPC.pdf>