

**Multi-Jurisdictional
Hazard Mitigation Plan: Padre Dam
Municipal Water District Annex**

San Diego County, California

2023

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1. SECTION ONE: Determine the Planning Area and Resources

1.1. Planning Area

Padre Dam Municipal Water District is a Special District incorporated under the State of California. Padre Dam provides water, wastewater, recycled water and park and recreation services to over 100,000 residents in the East San Diego County communities of Santee, El Cajon, Lakeside, Flinn Springs, Harbison Canyon, Blossom Valley, Alpine, Dehesa and Crest.

Formed in 1955 by resident request to the San Diego County Board of Supervisors to import water from the Colorado River, Padre Dam was originally named Rio San Diego Municipal Water District. In 1976, upon merger with the Santee County Water District, it was renamed to Padre Dam Municipal Water District. Later, in the 1980's, Alpine Highlands Water District and Crest Public Utility District merged with Padre Dam.

Infrastructure

Padre Dam's infrastructure is broken down as follows:

Water

393 miles of mains
29 reservoirs (water tanks)
16 pumping stations

Wastewater

169 miles of mains
4 lift stations
1 pumping station

Recycled Water

31 miles of mains
1 water tank
2 MGD Recycling Plant
1.5 MGD storage

Santee Lakes

190 acres
7 lakes
300 site campground
Day use recreation (fishing, boating, special events)

Population and Demographics

The service area population is approximately 103,709. The median age of Padre Dam's population is 39 years. The majority of the population is white (62%), Hispanics make up 23%, Asians 7% and African Americans 6%. The remaining 2% of the population are American Indian, Pacific Islander and other races.

Geography & Climate

The geography of Padre Dam's service area varies greatly from coastal plan to Peninsular Mountain Ranges of Southwestern California. The lowest elevation is approximately 320 feet above mean sea level along the San Diego River floodway in the center of Santee. The highest elevation is 2,617 feet in the community of Alpine. Topography ranges from flat land to canyons, sloped and rolling terrain, hillsides and mountainous areas with steep slopes. The climate in the

SECTION ONE | Determine the Planning Area and Resources

Padre Dam service area is typical of eastern San Diego County- dry and mild. The average daily temperature is about 88 degrees and the average low is 41 degrees

Economic Activity

There are large vacant areas in the Padre Dam service area. Most development is in the flat land and consists of residential, light industrial, office and commercial enterprises.

Environmental Factors

Undeveloped areas contain vegetation consisting of Diegan coastal sage scrub, and southern mixed chaparral. Other vegetation includes native grassland, non-native grassland, riparian woodland, oak woodland and coastal and freshwater marsh.

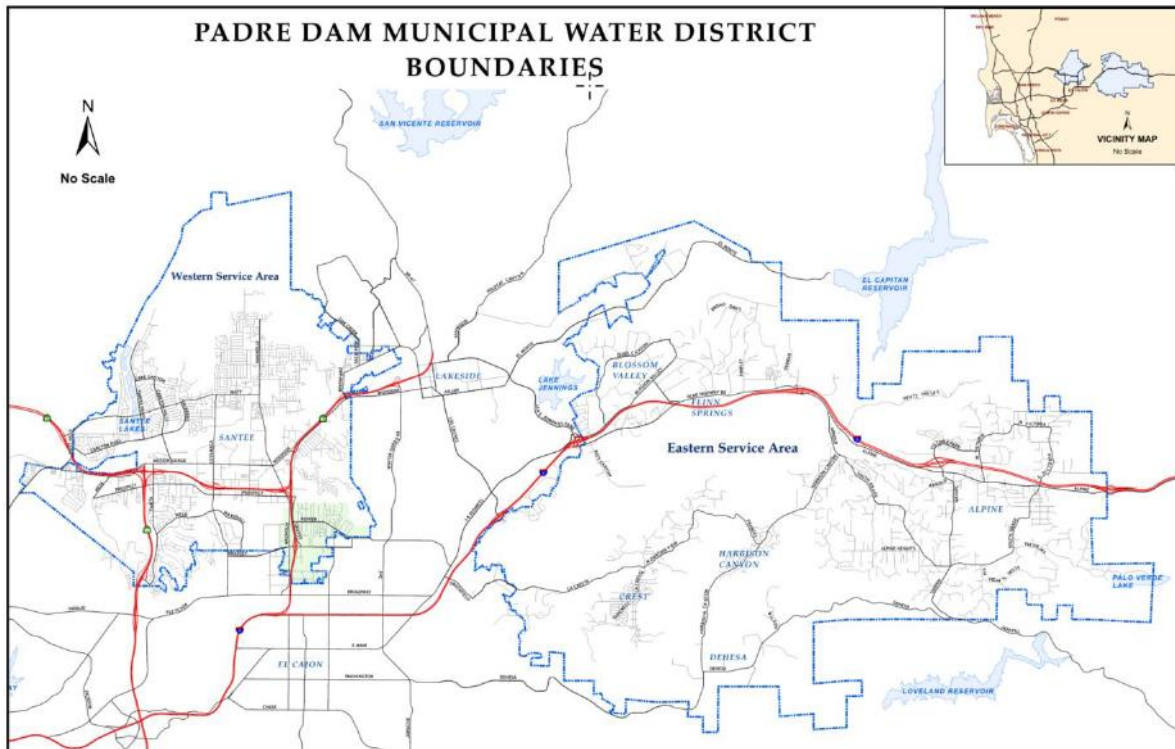


Figure 1-1 PDMWD Boundaries

2. SECTION TWO: Build the Planning Team

2.1. Planning Participants

Padre Dam's planning participants were:

- Larry Costello, Safety & Risk Manager
- Lisa Sorce, Director of Human Resources & Administrative Services
- Melissa McChesney Communications Manager
- Paul Clarke, Director of Operations
- Jimmy Vargas, Operations Manager
- Cory Kading, Operations Supervisor
- Rob Northcote, Plant Manager
- Michael Hindle, CIP Engineering Manager
- Kyle James, SCADA Administrator
- Dave Salinard, Information Systems Manager

2.2. Planning Process

Padre Dam started participating in Local Hazard Mitigation Planning in 2010 utilizing a consultant who walked us through the planning process. In 2018, Padre Dam joined the County of San Diego's Multi-Jurisdictional Hazard Mitigation Plan. In 2022, Padre Dam again joined the County of San Diego's Multi-Jurisdictional Hazard Plan. Some of the activities Padre Dam participants participated outside the County process include the following:

- Review of prior Plan (2018)
- Review of Goals & Objectives to determine status
- Plant Inspections
- District Site Audits
- Safety & Security Meetings (Quarterly)
- Emergency Operation Activity – Simulated With After Action Plans (Annual)

See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan's* Section Two for details about the county-wide Planning Process.

3. SECTION THREE: Create an Outreach Strategy

See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan's* Section Three for details about the county-wide outreach strategy.

4. SECTION FOUR: Review Community Capabilities

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities, and must be included in a hazard mitigation plan by the planning team.

The planning team also may identify additional types of capabilities relevant to mitigation planning.

4.1. Capability Assessment

The primary types of capabilities for reducing long-term vulnerability through mitigation planning are:

- Planning and regulatory
- Administrative and technical
- Financial
- Education and outreach

4.1.1. Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Existing policies and programs can be expanded on and improved with additional staff to be added, additional training for all staff, and more technology purchased in fiscal year 2023-24 and beyond.

SECTION FIVE | Conduct a Risk Assessment

| Plans | Yes/No Year | Does the plan address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions? |
|------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Comprehensive/Master Plan | Yes | Plan was last updated June of 2022 and while it doesn't specifically identify projects to mitigate actions, it does include an analysis of emergency water supply, stability of pipelines, etc. |
| Capital Improvements Plan | Yes | Past and Current Plans have earmarked dollars for mitigation. This plan is updated every 5 years but reviewed annually for progress. |
| Economic Development Plan | N/A | The District does not have an Economic Development Plan |
| Local Emergency Operations Plan | Yes | |
| Continuity of Operations Plan | Yes | |
| Transportation Plan | N/A | |
| Stormwater Management Plan | N/A | |
| Community Wildfire Protection Plan | N/A | |
| M. Real estate disclosure requirements | N/A | |
| Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation) | Yes | Plans include: 2020 Urban Water Management Plan, 2019 Sewer System Management Plan, 2020 Water Shortage Contingency Plan, COVID Prevention Plan and the ECAWP Final Initial Study.Mitigated Negative Declaration. All of these plans have components of hazard mitigation throughout. |

TABLE 1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA.

4.1.2. Administrative and Technical

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. Administrative and technical capabilities of existing and newly-hired staff can be expanded on and improved with additional training for all staff and more technology purchased to assist in those efforts.

SECTION FIVE | Conduct a Risk Assessment

| Administration | Yes/No | Describe capability Is coordination effective? |
|-------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Planner(s) or engineer(s) with knowledge of land development and land management practices | Yes | Development Services Engineering Manager Coordination is effective. |
| Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure | Yes | Operations Staff Engineering Staff Coordination is effective. |
| Planners or Engineer(s) with an understanding of natural and/or manmade hazards | Yes | Operations Staff Engineering Staff Coordination is effective. |
| Mitigation Planning Committee | Yes | Chair of Committee: Safety & Risk Manager Coordination is effective. |
| Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems) | Yes | Operations Staff & 3 rd Party Consultants Coordination is effective. |
| Mutual aid agreements | Yes | Agreements in place with neighboring Water Districts Coordination is effective. |
| Staff | Yes/No FT/PT1 | Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective? |
| Chief Building Official | N/A | N/A |
| Floodplain Administrator | N/A | N/A |
| Emergency Manager | Yes | Safety & Risk Manager Coordination is effective. |
| Surveyors | Yes | As needed, we use a Third Party. Coordination is effective. |
| Staff with education or expertise to assess the community's vulnerability to hazards | N/A | N/A |

SECTION FIVE | Conduct a Risk Assessment

| | | |
|-------------------------------------------------------|-----|---------------------------------------------------------------------------------------------|
| Community Planner | N/A | N/A |
| Scientists familiar with the hazards of the community | N/A | N/A |
| Civil Engineer | Yes | The District employs 6 Full-Time Principal Engineers. Coordination is effective. |
| Personnel skilled in GIS and/or HAZUS | Yes | The District employs 3 Full-Time GIS Staff Members. Coordination is effective. |
| Grant writers | Yes | Staff in multiple departments are responsible for grant writing. Coordination is effective. |
| Other | N/A | N/A |

TABLE 2:FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.1.3. Financial

Existing funding resources through our Capital improvements project funding resource is expected to continue to be earmarked for future hazard mitigation efforts.

| Funding Resource | Access/ Eligibility (Yes/No) | Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions? |
|---------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Community Development Block Grants (CDBG) | N/A | N/A |
| Capital improvements project funding | Yes | In the past, funding has been earmarked for specific mitigation measures. It is highly likely it will be earmarked for future activities as well. |
| Authority to levy taxes for specific purposes | No | N/A |
| Fees for water, sewer, gas, or electric service | Yes | N/A |
| Impact fees for homebuyers or developers for new developments/homes | Yes | N/A |
| Incur debt through general obligation bonds | Yes | N/A |

SECTION FIVE | Conduct a Risk Assessment

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|
| Incur debt through special tax and revenue bonds | Yes | N/A |
| Incur debt through private activity bonds | No | N/A |
| How can these capabilities be expanded and improved to reduce risk? | | |
| Each year during the budgeting process, the Mitigation team works with Operations & Engineering Staff to review Goals & Objectives against current project needs to determine the best use of financial resources. | | |

TABLE 3: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.1.4. Education and Outreach

Public education programs stressing the value of water reuse and drought education are used to implement mitigation activities and communicate hazard-related information. Future increases in personnel will enable this function to be expanded and therefore further assist in future mitigation activities.

| Program/Organization | Yes/No | Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities? |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. | N/A | N/A |
| Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education) | Yes | Education Programs on the Value and Quality of Water, Drought, and Education on Potable Water Reuse. |
| Natural disaster or safety related school programs | N/A | N/A |
| StormReady certification | N/A | N/A |
| Firewise Communities certification | N/A | N/A |
| Public-private partnership initiatives addressing disaster-related issues | N/A | N/A |
| Other | N/A | N/A |
| How can these capabilities be expanded and improved to reduce risk? | | |
| The mitigation planning team works in collaboration with the District's communication staff to ensure that we have ongoing public education or information to disseminate. | | |

SECTION FIVE | Conduct a Risk Assessment

4.2. Safe Growth Audit

Identify gaps in your community’s growth guidance instruments and improvements that could be made to reduce vulnerability to future development:

| Comprehensive Plan | Yes | No |
|-------------------------------------------------------------------------------------------------------------------|------------|-----------|
| Land Use | | |
| 1. Does the future land-use map clearly identify natural hazard areas? | | X |
| 2. Do the land-use policies discourage development or redevelopment within natural hazard areas? | | X |
| 3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas? | | X |
| Transportation | | |
| 1. Does the transportation plan limit access to hazard areas? | | X |
| 2. Is transportation policy used to guide growth to safe locations? | | X |
| 3. Are movement systems designed to function under disaster conditions (e.g., evacuation)? | | X |

TABLE 4: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA.

| Comprehensive Plan (continued) | Yes | No |
|--------------------------------------------------------------------------------------------------------------------|------------|-----------|
| Environmental Management | | |
| 1. Are environmental systems that protect development from hazards identified and mapped? | | X |
| 2. Do environmental policies maintain and restore protective ecosystems? | | X |
| 3. Do environmental policies provide incentives to development that is located outside protective ecosystems? | | X |
| Public Safety | | |
| 1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan? | | X |
| 2. Is safety explicitly included in the plan’s growth and development policies? | | X |
| 3. Does the monitoring and implementation section of the plan cover safe growth objectives? | | X |

TABLE 5: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

SECTION FIVE | Conduct a Risk Assessment

| Zoning Ordinance | Yes | No |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| 1. Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas? | | X |
| 2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones? | | X |
| 3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use? | | X |
| 4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains? | | X |
| Subdivision Regulations | Yes | No |
| 1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas? | | X |
| 2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources? | | X |
| 3. Do the regulations allow density transfers where hazard areas exist? | | X |

TABLE 6: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

| Capital Improvement Program and Infrastructure Policies | Yes | No |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| 1. Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards? | | X |
| 2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards? | | X |
| 3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan? | | X |
| Other | Yes | No |
| 1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards? | | X |
| 2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces? | | X |
| 3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards? | | X |
| 4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards? | | X |

TABLE 7: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

Questions were adapted from Godschalk, David R. Practice Safe Growth Audits, Zoning Practice, Issue Number 10, October 2009, American Planning Association.

4.3. National Flood Insurance Program (NFIP)

Padre Dam Municipal Water District is not eligible to participate in and therefore does not participate in the National Flood Insurance Program.

5. SECTION FIVE: Conduct a Risk Assessment

The planning team conducts a risk assessment to determine the potential impacts of hazards to the people, economy, and built and natural environments of the community. The risk assessment provides the foundation for the rest of the mitigation planning process, which is focused on identifying and prioritizing actions to reduce risk to hazards.

In addition to informing the mitigation strategy, the risk assessment also can be used to establish emergency preparedness and response priorities, for land use and comprehensive planning, and for decision making by elected officials, city and county departments, businesses, and organizations in the community.

Padre Dam’s mitigation team meets regularly with the Operations and Engineering Staff to determine prioritization of items. Part of this review includes looking at jurisdictional level maps including critical facility information and localized potential hazard exposure/loss estimates to help identify the top hazards threatening our jurisdiction.

5.1. Hazards Summary

Summarize hazard description information and identify which hazards are most significant to the planning area:

| Hazard | Location (Geographic Area Affected) | Maximum Probable Extent (Magnitude/Strength) | Probability of Future Events | Overall Significance Ranking |
|-----------------|--------------------------------------------|-----------------------------------------------------|-------------------------------------|-------------------------------------|
| Avalanche | Negligible | Weak | Unlikely | Low |
| Dam Failure | Limited | Moderate | Occasional | Low |
| Drought | Significant | Severe | Likely | Medium |
| Earthquake | Significant | Severe | Likely | Medium |
| Erosion | Negligible | Weak | Unlikely | Low |
| Expansive Soils | Negligible | Weak | Unlikely | Low |

SECTION FIVE | Conduct a Risk Assessment

| | | | | |
|-----------------------|-------------|----------|---------------|--------|
| Extreme Cold | Negligible | Weak | Unlikely | Low |
| Extreme Heat | Significant | Moderate | Likely | Medium |
| Flood | Limited | Moderate | Likely | Medium |
| Hail | Negligible | Weak | Unlikely | Low |
| Hurricane | Negligible | Moderate | Unlikely | Low |
| Landslide | Limited | Moderate | Occasional | Medium |
| Lightning | Limited | Moderate | Occasional | Medium |
| Sea Level Rise | Negligible | Weak | Unlikely | Low |
| Severe Wind | Significant | Moderate | Likely | Medium |
| Severe Winter Weather | Negligible | Weak | Unlikely | Low |
| Storm Surge | Negligible | Weak | Unlikely | Low |
| Subsidence | Negligible | Weak | Unlikely | Low |
| Tornado | Negligible | Moderate | Unlikely | Low |
| Tsunami | Negligible | Weak | Unlikely | Low |
| Wildfire | Extensive | Severe | Highly Likely | High |

TABLE 8: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 5.1 DATA.

Summary of Potential Hazard-Related Exposure/Loss in Padre Dam Municipal Water District

| Hazard Type | Exposed Population | Number of Critical Facilities | Potential Exposure for Critical Facilities (X 1000) |
|------------------------------------------|--------------------|-------------------------------|-----------------------------------------------------|
| Coastal Storm/Erosion | 0 | 0 | 0 |
| Dam Failure | 20,815 | 11 | 26,551 |
| Earthquake | 87,194 | 43 | 452,693 |
| Flood (Loss) -100 Year | 1,873 | 0 | 0 |
| Flood (Loss) – 500 Year | 2,994 | 0 | 0 |
| Rain Induced Landslide (High Risk) | 35 | 4 | 7,299 |
| Drought | 105,000 | 22 | 54,571 |
| Wildfire Structure Fire (Region II & IV) | 87,194 | 23 | 63,810 |

Padre Dam has determined the top four hazards in our service area are Earthquake/Landslide, Wildfire, Flooding/Dam Failure, and Drought. These four were chosen due to their high potential exposure for critical facilities (as noted above). The three hazards

SECTION FIVE | Conduct a Risk Assessment

(Extreme Heat, Lightning and Severe Wind) not chosen have very low exposed populations and/or no potential exposure for critical facilities.

Probability of Future Events

- **Unlikely:** Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.
- **Occasional:** 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **Highly Likely:** 90 to 100 percent probability of occurrence in the next year or a recurrence interval of less than 1 year.

Overall Significance

- **Low:** Two or more criteria fall in lower classifications, or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating.
- **High:** The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.

Earthquake/Landslide: Geographic extend of this hazard is District-wide. A greater percentage of the District's critical infrastructure is potentially more exposed to earthquake hazard relative to other hazards below. The Rose Canyon fault lies offshore (14 miles west of Padre Dam at its closest point) and is capable of generating an earthquake that could damage above ground and below ground water storage and infrastructure throughout the District. Since all water is imported from the Los Angeles area, earthquake activity along the San Andreas and Elsinore Faults would likely disrupt water delivery to the District. The District's facilities are susceptible to the effects of earthquake, especially the 393 miles of water main, 169 miles of wastewater main and 31 miles of recycled water main

Four critical structures that supply water to the Western Service Area of the District lie in areas where a landslide has either been confirmed or is possible. This area makes up the Friars Formation covering the sloping southern area from State Route 125 to Carlton Hills and northern slopes along Cuyamaca Street, Lake Canyon Rd. and Fanita Ranch. The District's main administration building and Field Operations Yard lie on alluvium soil near the San Diego River making it susceptible for landslide. In the Eastern Service area, 15 critical facilities including pump stations and reservoirs lie in areas of undocumented and documented placed fill making them susceptible to landslide.

SECTION FIVE | Conduct a Risk Assessment

Wildfire: The seasonal climatic conditions during late summer and fall create numerous serious difficulties regarding the control and protection against fires in the District. The hot, dry weather typical of this area in summer and fall, coupled with Santa Ana winds and low humidity frequently results in wildfires that threaten Pump Stations, partially exposed roofs of underground water reservoirs and above ground water reservoirs. All are susceptible to wildfire because they are situated near open space and steep canyons containing highly flammable, native vegetation. The 2001 Cedar Creek Fire resulted in District property losses of approximately \$1 Million and the temporary loss of water delivery to more than 800 homes.

Flooding/Dam Failure: Flooding due to the rise of waterways from excessive rain threatens the District's Field Operations Yard and Influent Pump Station. This is where all the raw, untreated wastewater from the City of Santee flows before either being diverted to San Diego or sent for treatment to the Ray Stoyer Water Recycling Facility to become recycled water. Rainstorms in 2010 created flooding in Sycamore Creek leading to the inundation of the Field Operations Yard and the Influent Pump Station. Losses from this event exceeded \$1 Million.

The geographic extent of Dam failure flooding hazard is limited to District properties within the inundation path of San Vicente Reservoir, El Capitan Reservoir, Lake Jennings and Blossom Valley Reservoir. Major road arterials and bridges within the inundation path include Mission Gorge Road, Mast Blvd, and parts of SR-52 through Santee. The most significant damage to property would occur from a failure of San Vicente Reservoir and El Capitan Reservoir.

In both cases, several turnouts that regulate the distribution of water throughout Santee lie in the flood inundation zone for natural and dam failure flooding.

Drought: The District needs to maintain a reliable water supply. Since it is dependent on water delivery from outside sources, it is critical to develop a potable reuse program that would add to the region's water supply. Padre Dam also needs to expand its water recycling program to treat additional wastewater and provide greater access to recycled water.

Definitions for Classifications

Location (Geographic Area Affected)

- **Negligible:** Less than 10 percent of planning area or isolated single-point occurrences
- **Limited:** 10 to 25 percent of the planning area or limited single-point occurrences
- **Significant:** 25 to 75 percent of planning area or frequent single-point occurrences
- **Extensive:** 75 to 100 percent of planning area or consistent single-point occurrences

Maximum Probable Extent (Magnitude/Strength based on historic events or future probability)

- **Weak:** Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage
- **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of services for days
- **Severe:** Severe classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of services for weeks or months

SECTION FIVE | Conduct a Risk Assessment

- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

| Hazard | Scale / Index | Weak | Moderate | Severe | Extreme |
|----------------|--------------------------------------------------|-------------------|-------------------|-------------------|--------------------|
| Drought | Palmer Drought Severity Index ³ | -1.99 to +1.99 | -2.00 to -2.99 | -3.00 to -3.99 | -4.00 and below |
| Earthquake | Modified Mercalli Scale ⁴ | I to IV | V to VII | VII | IX to XII |
| | Richter Magnitude ⁵ | 2, 3 | 4, 5 | 6 | 7, 8 |
| Hurricane Wind | Saffir-Simpson Hurricane Wind Scale ⁶ | 1 | 2 | 3 | 4, 5 |
| Tornado | Fujita Tornado Damage Scale ⁷ | F0 | F1, F2 | F3 | F4, F5 |

- Cumulative meteorological drought and wet conditions: <http://ncdc.noaa.gov/>
- Earthquake intensity and effect on population and structures: <http://earthquake.usgs.gov>
- Earthquake magnitude as a logarithmic scale, measured by a seismograph: <http://earthquake.usgs.gov>
- Hurricane rating based on sustained wind speed: <http://nhc.noaa.gov>
- Tornado rating based on wind speed and associated damage: <http://spc.noaa.gov>

Development Since 2018 Plan

As a Water District, Padre Dam is not responsible for much development. Consequently, the only development that did occur was the replacement of several buildings at the Santee Lakes Recreation Preserve including a new General Store and Administration building. This development within the wildfire and earthquake hazard prone areas did not increase risk, it remained the same.

Future Development

As stated previously, the District's current water treatment plant is being replaced with a larger regional water treatment plant at the same site in partnership with the County of San Diego, the City of El Cajon, and the Helix Water District. Upon completion of the plant in 2026-27, risk will remain the same.

6. SECTION SIX: Develop a Mitigation Strategy

The mitigation strategy serves as the long-term blueprint for reducing potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process.

The mitigation strategy is made up of three main required components: mitigation goals, mitigation actions, and an action plan for implementation. These provide the framework to identify, prioritize, and implement actions to reduce risk to hazards.

Mitigation goals are general guidelines that explain what the community wants to achieve with the plan. They are usually broad policy-type statements that are long-term, and they represent visions for reducing or avoiding losses from the identified hazards.

Mitigation actions are specific projects and activities that help achieve the goals.

The action plan describes how the mitigation actions will be implemented, including how those actions will be prioritized, administered, and incorporated into the community's existing planning mechanisms. In a multi-jurisdictional plan, each jurisdiction must have an action plan specific to that jurisdiction and its vulnerabilities.

Although not required, some communities choose to develop **objectives** to help define or organize mitigation actions. Objectives are broader than specific actions, but are measurable, unlike goals. Objectives connect goals with the actual mitigation actions.

6.1. Mitigation Action Evaluation

Use this worksheet to help evaluate and prioritize each mitigation action being considered by the planning team. For each action, evaluate the potential benefits and/or likelihood of successful implementation for the criteria defined below.

Rank each of the criteria with a -1, 0 or 1 using the following scale:

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible

Example Evaluation Criteria:

- **Life Safety** – How effective will the action be at protecting lives and preventing injuries?
- **Property Protection** – How significant will the action be at eliminating or reducing damage to structures and infrastructure?
- **Technical** – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.

SECTION SIX | Develop a Mitigation Strategy

- **Political** – Is there overall public support for the mitigation action? Is there the political will to support it?
- **Legal** – Does the community have the authority to implement the action?
- **Environmental** – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
- **Social** – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- **Administrative** – Does the community have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
- **Local Champion** – Is there a strong advocate for the action or project among local departments and agencies that will support the action’s implementation?
- **Other Community Objectives** – Does the action advance other community objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of the comprehensive plan?

| Mitigation Action | Life Safety | Property Protection | Technical | Political | Legal | Environmental | Social | Administrative | Local Champion | Other Community Objectives | Total Score |
|---------------------------------------|-------------|---------------------|-----------|-----------|-------|---------------|--------|----------------|----------------|----------------------------|-------------|
| Local Plans and Regulations | | | | | | | | | | | |
| Action Item #6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Structure and Infrastructure Projects | | | | | | | | | | | |
| Action Item #1 | 1 | -1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| Action Item #2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Action Item #3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Action Item #4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Action Item #5 | 1 | -1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| Action Item #7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| Action Item #9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |

TABLE 9: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 6.1 DATA.

6.2. Mitigation Action Implementation

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan’s mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process.

Padre Dam has developed the following goals, objectives and goals for their Hazard Mitigation Plan. Funding to implement these actions might be achieved through internal Padre Dam funding sources such as the Operating budget, the Capital Improvement Project budget or Capital Replacement reserves.

Funding might also be achieved through a combination of federal and state grants such as the Building Resilient Infrastructure and Communities (BRIC) grant program, Community Development Block Grants (CDBGs), or the Section 219 Environmental Infrastructure Assistance grant program. Low-interest loans might also be pursued such as the Clean Water/Drinking Water State Revolving Funds (SRF) program or the Water Infrastructure Finance and Innovation Act (WIFIA) program.

For more information on potential funding sources and grants for mitigation actions, please see the County of San Diego Multi-jurisdictional Hazard Mitigation Base Plan, Section 6.2.

| Goal 1: Reduce the possibility of damage and losses to flooding and/or dam failure | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|
| <i>Objective 1.A. Protect existing assets with the highest relative vulnerability to the effects of dam failure within the Dam Inundation Zone.</i> | | |
| Action 1.A.1. | Relocate the El Capitan Pumo and Booster Stations outside of the Padre Dam Inundation Zone | Existing |
| Action 1.A.2. | Relocate the Simeon Chlorination Station outside of the Dam Inundation Zone. | Existing |
| Action 1.A.3. | Relocate the Administration Building outside the Dam Inundation Zone. | Existing |
| <i>Objective 1.B Protect existing assets with the highest relative vulnerability to the effects of dam failure within the Inundation Zone.</i> | | |
| Action 1.C.1. | Relocate existing operations yard, shops and buildings outside flood zone. | Existing |
| Action 1.C.2. | Waterproof the Santee #1-5 Turnouts. | Existing |
| Action 1.C.3. | Reinforce the Mission Creek Sewage Lift Station against flood failure | Existing |
| Action 1.C.4. | Install a control system at the Influent Pump Station which will shut down pumps in the event of a dam failure. | Existing |
| Action 1.C.5. | Waterproof the Riverview #1-2 Turnouts | Existing |
| Action 1.C.6. | Waterproof the Lakeside #1 & 3 Turnouts | Existing |

SECTION SIX | Develop a Mitigation Strategy

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| Goal 2: Reduce the possibility of damage and losses due to earthquake, landslide, and liquefaction. | | |
| <i>Objective 2.A. Protect existing assets with the highest relative vulnerability to the effects of landslides.</i> | | |
| Action 2.A.1. | Strengthen slopes surrounding reservoirs and pump stations to protect against failure due to landslides. | Existing |
| Action 2.A.2. | Erect barriers around reservoirs and pump stations to divert possible landslides. CIP funds are earmarked for erosion control at all District reservoirs. | Existing |
| <i>Objective 2.B. Protect existing assets with the highest relative vulnerability to the effects of earthquakes.</i> | | |
| Action 2.B.1. | Retrofit and strengthen reservoirs and pump stations that do not meet current building seismic codes. | Existing |
| Goal 3: Reduce the possibility of damage and losses due to structure/wild fire. | | |
| <i>Objective 3.A. Protect existing assets with the highest relative vulnerability to the effects of wildfires.</i> | | |
| Action 3.A.1. | Replace/retrofit the roofs of reservoirs located in the Eastern Service Area with flame retardant material. CIOP | Existing |
| Action 3.A.2. | Create and maintain firebreaks surrounding pump stations located in the Eastern Service Area that are located in areas susceptible to wildfires. CIP funds are earmarked for roof replacements at Jerry Johnson Reservoir and Blossom Valley. | Existing |
| Action 3.A.3. | Install backup generators at key District Facilities | Existing |
| <i>Objective 3.B. Develop a comprehensive approach to reducing the possibility of damages and losses due to wildfires.</i> | | |
| Action 3.B.1. | Require the application of the California Fire Code pertaining to fire protection plans and/or equivalent construction methods as determined by a technical fire analysis on all new District facilities. | Existing |
| Action 3.B.2. | Continue to ensure all District facilities can accommodate emergency vehicles. | Existing |
| Action 3.B.3. | Improve existing pipeline network to increase fire flow capacity and enhance fire protection. | Existing |

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| Goal 4: Improve hazard mitigation coordination and communication with federal, state, local and tribal governments. | | |
| <i>Objective 4.A. Establish and maintain closer working relationships and communication with federal, State, local and tribal governments.</i> | | |
| Action 4.A.1. | Plan, practice, exercise, and operate the Emergency Operations Center (EOC) following the National Incident Management System (NIMS), the Standardized Emergency Management System (SEMS) and Incident Command System (ICS). | Existing |

SECTION SIX | Develop a Mitigation Strategy

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| Action 4.A.2. | Encourage further refinement and updating of the District's Emergency Operations Plan to coordinate with local agencies and the County-Wide Emergency Operations Plan | Existing |
| <i>Objective 4.B. Improve the District's capability and efficiency at administering pre-and post disaster mitigation.</i> | | |
| Action. 4.B.1. | Participate in the development and execution of Emergency Operations Center (EOC) table top discussions and functional disaster exercises. | Existing |
| Action 4.B.2. | Ensure there is always adequate staffing in the EOC and EOC personnel are trained in multiple positions. | Existing |

Goal 5: Diversify the District's water supply portfolio to be more drought resistant.

Objective 5.A. Protect local economy and public health against a lack of reliable water supply.

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|---------------|-----------------------------------------------------------------------------------------------------|----------|
| Action 5.A.1. | Develop a regional potable reuse program that provides up to 15% of the region's water supply. | Existing |
| Action 5.A.2. | Expand the District's existing water recycling facilities to treat additional wastewater | Existing |
| Action 5.A.3. | Identify suitable storage locations for advanced treated water | Existing |
| Action 5.A.4. | Partner with regional and local stakeholders to conduct a comprehensive regional water reuse study. | Existing |

Goal 6: Reduce the possibility of damage and losses due to hazardous chemicals

Objective 6.A. Develop a comprehensive approach to reducing the possibility of damage and losses due to the release of hazardous materials.

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| Action 6.A.1. | Replace aging facilities with hazardous chemicals to suppress and prevent the release of extremely hazardous substances – Chlorine and Sulfur Dioxide | Existing |
| Action 6.B.1. | Continue to ensure that all OSHA required material data safety sheets (MSDS) and required protective gear is on hand at each facility where hazardous materials are stored. | Existing |

Once the above comprehensive list of jurisdictional goals, objectives and action items were developed, the proposed mitigation actions were prioritized. This step allowed the team to address the hazards that were most critical. The following action items are a result of that work.

Action Item #1

Develop a regional potable reuse program that provides up to 15% of the region's water supply.

Contributing Organization:

Padre Dam Water District & the East County Advanced Water Joint Powers Authority

SECTION SIX | Develop a Mitigation Strategy

Project Funding Source: Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: Construction Start in Summer of 2022, Facility Fully Operational 2027.

Hazard(s) Addressed Drought

Action Item #2 **Strengthen slopes surrounding reservoirs and pump stations to protect against failure due to landslides.**

Contributing Organization: Padre Dam Water District

Project Funding Source: CIP Fund, Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: Ongoing Analysis through 2027

Hazard(s) Addressed Earthquake/Landslide, Flooding/Dam Failure

Action Item #3 **Replace/Retrofit the roofs of reservoirs located in the Eastern Service Area with flame retardant materials**

Contributing Organization: Padre Dam Water District

Project Funding Source: CIP Fund, Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: 2024-2027

Hazard(s) Addressed Wildfire

Action Item #4 **Expand the District’s existing water recycling facilities to treat additional wastewater.**

Contributing Organization: Padre Dam Water District & the East County Advanced Water Joint Powers Authority

Project Funding Source: Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: Construction Start in Summer of 2022, Facility Fully Operational 2027

Hazard(s) Addressed Drought

Action Item #5 **Retrofit and strengthen reservoirs and pump stations that do not meet current building seismic codes.**

SECTION SIX | Develop a Mitigation Strategy

Contributing Organization: Padre Dam Water District & the East County Advanced Water Joint Powers Authority

Project Funding Source: Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: Construction Start in Summer of 2022, Facility Fully Operational 2027

Hazard(s) Addressed Earthquake/Landslide

Action Item #6 **Create and maintain firebreaks surrounding pump stations located in the Eastern Service Area that are located in areas susceptible to wild fires.**

Contributing Organization: Padre Dam Water District

Project Funding Source: General Fund, Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: 2023-2027

Hazard(s) Addressed Wildfire

Action Item #7 **Replace aging facilities to suppress and prevent the release of extremely hazardous chemicals – Chlorine and Sulfure Dioxide.**

Contributing Organization: Padre Dam Water District & the East County Advanced Water Joint Powers Authority

Project Funding Source: Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: Construction Start in Summer of 2022, Facility Fully Operational 2027

Hazard(s) Addressed Earthquake/Landslide, Flooding/Dam Failure

Action Item #8 **Improve existing pipeline network to increase fire flow capacity and enhance fire protection.**

Contributing Organization: Padre Dam Water District

Project Funding Source: General Fund, Federal and/or State Grant Funds such as BRIC or CDBG grants or Loan Funds such as SRF or WIFIA.

Implementation Timeline: 2023-2027

Hazard(s) Addressed

Wildfire

7. SECTION SEVEN: Keep the Plan Current

Hazard Mitigation Plan maintenance is the process the planning team establishes to track the plan's implementation progress and to inform the plan update. The plan must include a description of the method and schedule for monitoring, evaluating, and updating it within a 5-year cycle. These procedures help to:

- Ensure that the mitigation strategy is implemented according to the plan.
- Provide the foundation for an ongoing mitigation program in your community.
- Standardize long-term monitoring of hazard-related activities.
- Integrate mitigation principles into community officials' daily job responsibilities and department roles.
- Maintain momentum through continued engagement and accountability in the plan's progress.

Hazard Mitigation Plan updates provide the opportunity to consider how well the procedures established in the previously approved plan worked and revise them as needed. This annex is part of the most recent *San Diego County Multi-Jurisdictional Hazard Mitigation Plan* update. The plan was last updated in 2018. See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan* for more information.

7.1. Mitigation Action Progress

The 2018 Plan was approved by the Padre Dam Board of Directors. Upon approval, efforts were immediately implemented to continue the feasibility test of purifying recycled water to create drinking water, strengthening slopes around numerous reservoirs, upgrade security fencing and video surveillance, and create and maintain fire breaks around areas susceptible to wildfires. The Safety and Risk Manager semi-annually monitors the progress of Action Items. Action Items in which funding was not available will be prioritized in the event a Hazard Mitigation Grant is awarded.

The 2018 Plan is tied into our Capital Improvement Program for some funding opportunities and is integrated into our annually-updated Emergency Response Plan and our recent 5-Year Business Plans for 2018-2022 and 2023-2027.

Mitigation Action Progress Report Form

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|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #1 - Develop a regional potable reuse program that provides up to 15% of the region's water supply. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of AWP | |
| Contact Phone/Email | 619-258-4766 | |
| Project Status | <p>The Advanced Water Purification Demonstration Facility was in operation from March 2015 through October 2021. It proved the feasibility of purifying recycled water to create a new drinking water supply. This Demonstration Facility used the same purification processes that will be used for the full-scale Advanced Water Purification Program (Program) to produce around 100,000 gallons of water a day. On May 19, 2022, the East County Advanced Water Purification Program Joint Powers Authority voted to move forward with construction on the project! The Program is now one step closer to being operational and providing a new drinking water supply to East San Diego County. Funding for the Advanced Water Purification Demonstration Facility was provided through a \$3 million grant secured through the California Department of Water Resources Proposition 50 through San Diego's Integrated Regional Water Management Group.</p> | |

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #2 - Strengthen slopes surrounding reservoirs and pump stations to protect against failure due to landslides. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of Operations | |
| Contact Phone/Email | 619-258-4746 | |
| Project Status | <p>The District has completed strengthening the slopes around Mountain Top Reservoir and Rios Canyon Pump Station within the last 2 years.</p> | |

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|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #3 Replace/Retrofit the roofs of reservoirs located in the Eastern Service Area with flame retardant materials | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of Operations | |
| Contact Phone/Email | 619-258-4746 | |
| Project Status | <p>The District has not had the funds to complete this project.</p> | |

SECTION SEVEN | Keep the Plan Current

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #4 Upgrade security fencing, video surveillance, working locks and alarms to prevent unauthorized access and potential water contamination. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Security Committee, Led by Safety & Risk Manager | |
| Contact Phone/Email | 619-258-4678 | |
| Project Status | Over the past several years, the District has been focused on analyzing our access and intrusion monitoring control systems. In 2020, we deployed a new camera system that allows for viewing of live and recorded video from desktops and mobile phones. In addition, we addressed storage concerns. Continuous monitoring of our plan allows quick response to issues. Most recently 200 ft of linear fence was installed in an area at the WRF where we discovered a vulnerability. The District has also entered into a contract with a 3 rd party Consultant (Triden) who is doing ongoing Cybersecurity monitoring of all of our Information Systems. | |

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| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #5 Expand the District’s existing water recycling facilities to treat additional wastewater. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of AWP | |
| Contact Phone/Email | 619-258-4766 | |
| Project Status | The Notice to Proceed with Phase 1 work for Package 1 was delivered to AECOM/WMV IV on October 8, 2020. Components of Package 1 include: a 16 MGD Water Recycling Facility, an 11.5 MGD Advanced Water Purification Facility, a solids handling facility, a product water pump station and a new visitor’s center. | |

SECTION SEVEN | Keep the Plan Current

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|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #6 Retrofit and strengthen reservoirs and pump stations that do not meet current building seismic codes. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of AWP | |
| Contact Phone/Email | 619-258-4766 | |
| Project Status | No work was completed on this Action item during the current planning process. However, with construction starting on the new ECAWP Building, we expect this to be complete between 2023 and 2027. | |

| | | |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #7 Create and maintain firebreaks surrounding pump stations located in the Eastern Service Area that are located in areas susceptible to wild fires. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of Operations | |
| Contact Phone/Email | 619-258-4746 | |
| Project Status | <p>The District has been actively working with its landscaper contractor to create and maintain fire breaks at our tank sites.</p> <p>The Santee Lakes Emergency is a subset of the District’s emergency plan. In April of 2021, a \$600,000 flood wall was put in place surrounding the Park administration office, general store, and restrooms. During an emergency response, we can now deploy the FP-F530 Flood Plank Barriers, which insert as “gates” into bollards attached to the wall. The Flood Plan Barrier is specifically designed to protect during a flood event and has been designed to meet the opening dimensions and Water Protective Height (WPH) of the site.</p> | |

SECTION SEVEN | Keep the Plan Current

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|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #8 Replace aging facilities to suppress and prevent the release of extremely hazardous chemicals – Chlorine and Sulfure Dioxide | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of AWP | |
| Contact Phone/Email | 619-258-4766 | |
| Project Status | <p>No work was completed on this Action item during the current planning process. However, with construction starting on the new ECAWP Building, we expect this to be complete between 2023 and 2027.</p> <p>Since we were unable to complete work on the facility during this last planning period, we focused instead on education and did an Emergency Simulation of a Chlorine Spill. The fire department participated in the drill with our entire Emergency Operation Team and it was a great learning experience for the District.</p> | |

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|------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------|
| Progress Report Period | From Date: 2018 | To Date: Summer 2022 |
| Action/Project Title | Action Item #9 Improve existing pipeline network to increase fire flow capacity and enhance fire protection. | |
| Responsible Agency | Padre Dam Municipal Water District | |
| Contact Name | Director of Operations | |
| Contact Phone/Email | 619-258-4746 | |
| Project Status | The District has not had the funds to focus on this project. | |

7.2. Plan Update Evaluation

| Plan Section | Considerations | Explanation |
|------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Planning Process | Should new jurisdictions and/or districts be invited to participate in future plan updates? | Yes |
| | Have any internal or external agencies been invaluable to the mitigation strategy? | Yes, the County of San Diego's Office of Emergency Services. |
| | Can any procedures (e.g., meeting announcements, plan updates) be done differently or more efficiently? | We participated in the planning for the 2018 Plan but did hold annual meetings to check in on the progress of the plan. |

SECTION SEVEN | Keep the Plan Current

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| | Has the Planning Team undertaken any public outreach activities? | N/A |
| | How can public participation be improved? | Yes – We can continue to reach out to the community with education |
| | Have there been any changes in public support and/or decision- maker priorities related to hazard mitigation? | N/A |
| Capability Assessment | Have jurisdictions adopted new policies, plans, regulations, or reports that could be incorporated into this plan? | N/A |
| | Are there different or additional administrative, human, technical, and financial resources available for mitigation planning? | N/A |
| | Are there different or new education and outreach programs and resources available for mitigation activities? | N/A |
| | Has NFIP participation changed in the participating jurisdictions? | We have not been involved with NFIP. |
| Risk Assessment | Has a natural and/or technical or human-caused disaster occurred? | Yes. The COVID-19 virus had a significant impact on the community and our workforce. |
| | Should the list of hazards addressed in the plan be modified? | No. We created a separate Covid Prevention Plan for the District. |
| | Are there new data sources and/or additional maps and studies available? If so, what are they and what have they revealed? Should the information be incorporated into future plan updates? | N/A |
| | Do any new critical facilities or infrastructure need to be added to the asset lists? | N/A |
| | Have any changes in development trends occurred that could create additional risks? | N/A |
| | Are there repetitive losses and/or severe repetitive losses to document? | N/A |

TABLE 10: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA.

SECTION SEVEN | Keep the Plan Current

| Plan Section | Considerations | Explanation |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mitigation Strategy | Is the mitigation strategy being implemented as anticipated? Were the cost and timeline estimates accurate? | Portions of the mitigation strategy were implemented but we were too aggressive with the timelines in the 2018 plan. |
| | Should new mitigation actions be added to the Action Plan? Should existing mitigation actions be revised or eliminated from the plan? | No |
| | Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update? | No |
| | Are there new funding sources to consider? | Yes. Padre Dam MWD is the lead partner in the East County Advanced Water Treatment Joint Powers Authority. The JPA will be funding the building of our new Advanced Potable Resuse Plant scheduled to be operational in 2027. |
| | Have elements of the plan been incorporated into other planning mechanisms? | Yes, elements of the District's 2023 Hazard Mitigation Plan were incorporated into the 2023-27 Five Year Business Plan as well as the recently-updated Emergency Operations Plan. |
| Plan Maintenance Procedures | Was the plan monitored and evaluated as anticipated? | No |
| | What are needed improvements to the procedures? | The Mitigation Planning team will meet annually to review the progress and re-evaluation of goals, objectives, etc. The meetings will be formal and minutes will be taken. The plan will be updated as needed. |

TABLE 11: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA CONTINUED.

7.3 Incorporation into Existing Planning Mechanisms

Another important implementation mechanism that is highly effective and low-cost is incorporation of the 2023 Hazard Mitigation Plan updates into other District plans and operations, where appropriate and feasible. Where possible, the Padre Dam Planning Team will use existing plans and/or programs to implement hazard mitigation actions. The District already implements policies and programs to reduce losses from hazards. The 2023 Plan update builds upon the momentum developed through previous District planning efforts and mitigation programs and recommends implementing actions, where possible, through these other plans and programs. These existing plans and programs include the District's:

- Five-Year Business Plan
- Emergency Operations Plan
- Capital Improvement Program

SECTION SEVEN | Keep the Plan Current

- Continuity of Operations Plan

The Padre Dam Planning Team involved in implementing these plans and programs will be responsible for integrating the findings and recommendations of this 2023 Plan to update those documents and programs, as appropriate. As described in Section 7.1, incorporation into existing plans will be done through the routine actions of:

- Monitoring other planning/program items going before the Board of Directors;
- Attending other planning/program meetings;
- Participating in Management Team meetings; and
- Participating in the development of the District's five-year budget process.

The successful implementation of this mitigation strategy will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community.

Efforts should continuously be made to monitor the progress of mitigation actions implemented through these other planning mechanisms and, where appropriate, their priority actions should be incorporated into updates of this hazard mitigation plan.

7.3.1 Existing Integration

The 2018 MJHMP was not integrated into other planning mechanisms. Future versions of the Five-Year Business Plan, Emergency Operations Plan, and Continuity of Operations Plan will reference and incorporate the recommendations from the most current MJHMP to ensure a cohesive mitigation strategy for the District.