

HAZARD MITIGATION PLAN UPDATE

Pala Band of Mission Indians

OCTOBER 2020



Pala Environmental Department

12196 Pala Mission Road

Pala, CA 92059

Pala Band of Mission Indians

HAZARD MITIGATION PLAN UPDATE

OCTOBER 2020

Coordinating Agency:

Pala Environmental Department

12196 Pala Mission Road

Pala, CA 92059

Prepared by:

JAMIE CAPLAN CONSULTING LLC
Emergency Management Services

351 Pleasant Street, Suite B # 208 · Northampton, MA 01060

Phone: 413-586-0867 · Fax: 413-727-8282 · www.jamiecaplan.com

Acknowledgements

Pala Executive Committee

- Robert Smith, Chairman
- Anthony Ravago Senior, Vice-Chairman
- Theresa J. Nieto, Treasurer
- Theresa Villa, Secretary
- Sheila Lopez, Council Member
- Bradly Gauchino, Council Member

Pala Environmental Department Advisory Board

The Pala Band of Mission Indians would like to thank the following people and organizations for supporting the development of this plan. This group was integral to the development of this plan.

- Shasta C. Gaughen, Pala Environmental Director
- Heidi Brow, Water Resources Specialist
- Matthew Deveney, Pala GIS
- Steve Eagleton, Pala Utilities Director
- Bob Halsted, Pala Casino
- Doretta Musick, Pala Learning Center Director
- Chris Nejo, Pala community member
- Joe Nejo, Pala Tribal Services Director
- Eric Ortega, Pala community member
- Anthony Ravago, Pala Fire Chief
- Ann Trujillo, Pala Housing Director

Consulting Team

- Jamie Caplan, Principal, Jamie Caplan Consulting LLC
- Caroline Cunningham, Principal, Hazard Mitigation Services Lead, Stantec
- Christina Hurley, Hazard Mitigation Planner, Stantec
- Darrin Punchard, Principal, Punchard Consulting LLC

Adoption Resolution

E2. Does the plan include documentation that it has been formally adopted by the governing body of the tribal government requesting approval? [44 CFR § 201.7(c)(5)]

A hazard mitigation plan must document that it has been formally adopted by the governing body of the jurisdiction requesting federal approval of the plan, as outlined in 44 CFR Section 201.7(c)(5). Disaster Mitigation Act of 2000 (DMA) compliance and its benefits cannot be achieved until the plan is adopted. This plan will be submitted for a pre-adoption review to Federal Emergency Management Agency (FEMA) Region IX. Once pre-adoption approval has been provided, The Tribe will formally adopt the plan. A copy of the resolution is provided below.

Hazard Mitigation Plan Update, Pala Band of Mission Indians



PALA BAND OF MISSION INDIANS

PMB 50, 35008 Pala Temecula Road
Pala, CA 92059
Phone 760-891-3500 | Fax 760-742-1411

G.C. Resolution Number XX-XX

ADOPTION OF PALA BAND OF MISSION INDIANS' 2020 HAZARDS (PRE-DISASTER) MITIGATION PLAN

At a general meeting of the Pala Band of Mission Indians, duly noticed and called at XX p.m. on the XX day of XX, 2020 for the purpose of transacting such business as might be brought before the members in general assembly, and

WHEREAS, the Pala Band of Mission Indians is a federally recognized Indian Tribe (the "Tribe") with the inherent sovereignty to make its own laws and be governed by them; and

WHEREAS, the Tribe is governed by a Tribal Constitution approved by the Commissioner of Indian Affairs which establishes an Executive Committee composed of officials elected by the membership; and

WHEREAS, the Executive Committee, under the Tribe's Constitution, has the authority to make policy and business decisions concerning the general welfare of all tribal members; and

WHEREAS, the Tribe and the Pala Indian Reservation (Reservation) have historically experienced severe damage from natural and human-caused hazards such as flooding, wildfire, earthquake, drought, high winds, pandemic disease, climate change, and hazardous materials incidents on many occasions in the past century, resulting in loss of property, economic hardship, and threats to its lands, natural resources, economic interests, and threats to public health and safety; and

WHEREAS, the Tribe has developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Tribe's Hazard Mitigation Plan (the Plan) under the requirements of 44 CFR 201.7; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedures for the Tribe; and

WHEREAS, the Plan recommends several hazard mitigation actions that will provide mitigation for specific natural and human-caused hazards that affect the Tribe, and will protect people and property from losses associated with those hazards; and

WHEREAS, the Tribe's adoption of the Plan will make it eligible for Federal funding to alleviate the effects of future hazards and the Reservation; and

WHEREAS, the Executive Committee finds that adoption of the Tribe's Hazard Mitigation Plan, and the Tribe's compliance with the Plan, its maintenance and mitigation actions are in the best interests of the Tribe:

NOW THEREFORE BE IT RESOLVED that the Tribe, acting through its Executive Committee, hereby approves adoption of the Plan; and

BE IT FURTHER RESOLVED that the future revisions to the Plan and Plan maintenance required to comply with 44 CFR 201.7 and related Federal laws and regulations applicable to the Tribe and the Plan shall be adopted as part of the Plan for a period not to exceed five (5) consecutive calendar years from the date of the Pala Band's adoption of this Resolution; and

BE IT FURTHER RESOLVED, an annual report on the progress and implementation elements of the Plan shall be presented to the Tribal Chairperson by December 30 of each year for which this Resolution is in effect; and

BE IT FURTHER RESOLVED, that the Tribe will comply with all Federal laws and regulations to the Tribe and in effect with respect to the periods of time for which this Resolution remains in effect and the Tribe received Federal grant funding in compliance with 44 CFR 13.119(c), and will amend the Plan as necessary to reflect changes in the laws of the Tribe or the United States applicable to the Tribe and the Plan, as required by 44 CFR 13.11(d); and

BE IT FURTHER RESOLVED, that the Tribe, acting through its Executive Committee, hereby grants and provides the Tribal Chairperson all requisite authority and power to execute, deliver, and perform this Resolution and to take such other actions in connection with the execution of the Plan and associated documents. The approval and authorization granted to the Tribal Chairperson by this Resolution shall extend to any modification, amendment, or cancellation of the Plan and related documents, if such is necessary, to the extent such changes are in the best interests of the Tribe; and

G.C. Resolution XX-XX
Pala Band of Mission Indians
August XX, 2020

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BE IT FURTHER RESOLVED, that this Resolution shall supersede any Resolution(s) or other action(s) of the Tribe, its officers, employees, or agents, either written or established by tradition, which are in conflict or inconsistent with the terms of this resolution; and

WHEREAS, the Tribe through its General Council hereby adopts the 2020 Amended Pala Band's Hazard (Pre-Disaster) Mitigation Plan, as updated amended in XX 2020; and

BE IT FURTHER RESOLVED THAT, this Resolution shall become effective as of the date and time of its approval by the General Council.

CERTIFICATION

We, the undersigned members of the Executive Committee, certify that the Pala Band drafted and amended the Tribe's Pre-Disaster Plan as of June 2009 and was approved by FEMA in April 2009 and was adopted by EC Resolution 09-14 on June 5, 2009, which was ratified by GC Resolution 09-20 at a duly called regular meeting of the General Council at which a quorum was present on July 8, 2009, with a vote of 95 in favor and 1 opposed, and that the Tribe's 2016 Hazard Mitigation Plan Update as of January 2016 was approved by FEMA in May 2016 and was adopted by GC Resolution 16-16 at a duly called regular meeting of the General Council at which a quorum was present on May 11, 2016, with a vote of 48 in favor and 0 opposed, and that the above resolution **GC XX-20** was by a vote of the **General Council**, with ____ in favor and ____ in opposition and ____ abstaining, at a duly called meeting of the General Council, at which a quorum was present, on this **XX** day of **XX, 2020**.

Robert H. Smith, Chairman

Anthony Ravago, Vice-Chairman

Theresa J. Nieto, Treasurer

Theresa Villa, Secretary

Bradly Guachino, Committee

Shelia L. Smith-Lopez, Committee

-Office of the Secretary-

E.C. Resolution XX-XX
Pala Band of Mission Indians
August XX, 2020

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Record of Changes

This Tribal Hazard Mitigation Plan, including Appendices, will be reviewed and approved on a biannual basis by the Pala Environmental Committee and following any major disasters. All updates and revisions to the plan will be tracked and recorded in the following table. This process will ensure the most recent version of the plan is disseminated and implemented by the Tribe.

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Chapter 1. Introduction

The Federal Emergency Management Agency (FEMA) defines mitigation as “the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking actions now – before the next disaster – to reduce human and financial consequences later (analyzing risk, reducing risk, insuring against risk.)”¹

“The purpose of mitigation planning is to identify policies and actions that can be implemented over the long term to reduce risk and future losses. Mitigation plans form the foundation for a community’s long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process is as important as the plan itself. It creates a framework for risk-based decision-making to reduce damages to lives, property, and the economy from future disasters.”²

“DMA 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for State, local and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for State, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts.”³

The Pala Band of Mission Indians decided to update their Hazard Mitigation Plan for Federal Emergency Management Agency (FEMA) approval. They applied for and received a Pre-Disaster Hazard Mitigation grant from FEMA and hired Jamie Caplan Consulting LLC, to develop the plan.

1.1 Purpose

The purpose of hazard mitigation is to reduce potential losses from future disasters. The intent of mitigation planning, therefore, is to maintain a process that leads to hazard mitigation actions. Tribal mitigation plans identify the natural hazards that affect the tribal government, identify actions to reduce losses from those hazards, and establish a coordinated process to implement the plan (44 CFR § 201.1(b)).

The Pala Band of Mission Indians developed this plan to meet the requirements of the Disaster Mitigation Act of 2000. More importantly, the plan was created to reduce loss of life, land and property due to natural hazards and climate change that affect the Tribe. It is difficult to predict when natural hazards will impact the Tribe, but it is accurate to say that they will. By implementing the mitigation actions listed in this plan, the impact of natural hazards will be lessened.

¹ <https://www.fema.gov/what-mitigation>

² https://www.fema.gov/media-library-data/1478260600306-117bda8ab179bd301b0b61b52a143485/StateMitigationPlanning_MS_Bulletin_V9_508.pdf

³ <https://www.fema.gov/media-library/assets/documents/4596>

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The Executive Committee and the Pala Environmental Department Advisory Board are dedicated to improving safety and sustainability of the Tribe. The consultants worked closely with these leaders to create this mitigation plan.

1.2 Tribal / FEMA Relationship

FEMA's Tribal Policy⁴ outlines the commitment by the Agency to enhance its nation-to-nation relationship with federally-recognized Indian tribal governments (tribal governments), and to ensure FEMA works together to build, sustain, and improve every tribal governments' capacity to prepare for, protect against, respond to, recover from, and mitigate against all hazards.

FEMA's Guiding principles for reviewing tribal mitigation plans are as follows:⁵

- **Nation to Nation.** In compliance with the FEMA Tribal Policy, FEMA commits itself to building a stronger and lasting partnership with tribal governments to assist them in preparing for the hazards they face, to reduce their disaster vulnerabilities, to respond quickly and effectively when disasters strike, and to assist in recovering in their aftermath. FEMA recognizes that the tribal right of self-governance flows from the inherent sovereignty of American Indian and Alaska Native tribal governments, and that federally recognized tribal governments have a unique and direct relationship with the United States government. Tribal governments are not political subdivisions of states but are recognized by the United States as distinct sovereign entities.
- **Foster cooperation and understanding.** FEMA is committed to communicating plan reviews in a constructive and positive manner. Communicating plan reviews in a constructive manner that enhances tribal government capabilities is an important goal of the mitigation planning program and will always be considered by FEMA when communicating with a tribal government.
- **Focus on mitigation strategy.** Plan reviews will emphasize actions and implementation of the hazard mitigation strategy. All other sections of the plan contribute to and result in the hazard mitigation strategy and specific hazard mitigation actions. For example, a sound hazard identification and risk assessment are an important part of the plan and serves as the basis for the strategy, which is the primary focus of the tribal mitigation plan.
- **Consider intent while reviewing the plan.** FEMA will review and consider the plan as a whole (Planning Process, Hazard Identification and Risk Assessment, Mitigation Strategy, etc.), as well as the individual requirements. A comprehensive review of the plan helps FEMA validate that the plan meets the overall purpose of mitigation planning.
- **Process is as important as the plan itself.** FEMA will accept the planning process as defined by the tribal government. In mitigation planning, as with most other planning efforts, the actual planning process is as important as the plan itself. One of the most critical elements of a

⁴ <https://www.fema.gov/media-library/assets/documents/25324>

⁵ Tribal Mitigation Plan Review Guide 2017, FEMA, p.2-3.

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successful mitigation plan is participation by a wide range of tribal members or other affected parties who play a role in setting mitigation goals and identifying and implementing mitigation actions. Therefore, it is important to have a clear description of *what* and *who* were involved in the planning process and of how the process met the needs of the tribal government.

- **This is the Tribe's plan.** Plan reviews will recognize the efforts, interests, and cultural beliefs of each tribal government that develops a mitigation plan. For example, FEMA recognizes that some resources vulnerable to hazards, including those having religious and cultural significance (such as sacred sites), may not be identified specifically or shown on maps included in publicly available plans.

1.3 Mitigation Plan Goals

D3. Was the plan revised to reflect changes in priorities? [44 CFR §201.7(d)(3)]

Through several meetings with the Pala Environmental Department Advisory Board (PEDAG), the goals shown below were chosen. The goals in the 2016 Hazard Mitigation Plan were updated to reflect current needs and interests. The goals were not significantly amended except for the addition of climate change and climate adaptation. For the mitigation actions developed to support these goals, see Chapter 6, Mitigation Strategy.

1. Mitigate risk to people and property from natural hazards and climate change.
2. Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and Tribal facilities due to extreme heat, wildfires, flooding, drought and climate change.
3. Proactively plan to mitigate the risks of natural hazards and climate change by integrating mitigation policies and practices into tribal planning for all departments.
4. Build capacity for hazard mitigation and climate adaptation through regional collaboration.
5. Increase tribal member and tribal employee awareness of natural hazards and climate adaptation by implementing tribal-based education programs.

1.4 Plan Adoption and Assurances

E1. Does the plan include assurances that the tribal government will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, including 2 CFR Parts 200 and 3002, and will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes? [44 CFR § 201.7(c)(6)]

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Following the two-week public review process, the Tribe sent the plan to FEMA for their review. Upon FEMA's review and designation that the plan was "Approved-Pending-Adoption," the Tribe scheduled a Tribal Executive Committee meeting to formally adopt the plan. The adoption resolution is included in the first few pages of this document. The adoption resolution demonstrates the Tribe's commitment to fulfilling the hazard mitigation goals outlined in this plan and authorizes the implementation of mitigation actions.

The Pala Band of Mission Indians assures that the Tribal government will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, including 2 CFR Parts 200 and 3002, and will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes.

1.5 Summary of Plan Contents

Below is a summary of the Hazard Mitigation Plan chapters, including appendices. The FEMA guidelines and requirements for each portion of this Plan are included in their respective chapters. The planning process closely adhered to FEMA guidelines and to the intent of those guidelines.

Chapter 2 Planning Area Profile

The Planning Area Profile chapter describes the Pala Band of Mission Indians, including tribal history and reservation geography and the built environment. Also included is a description of the Tribal government, economy and utilities. The essential facilities for the Tribe are identified in this chapter.

Chapter 3 Planning Process

The Planning Process chapter documents the methods and approach for developing the hazard mitigation plan. The chapter summarizes the Pala Environmental Department Advisory Group meetings, the public outreach process, and the Public Preparedness Survey. This chapter guides the reader through the process of generating this Plan and reflects the open and inclusive public involvement process.

Chapter 4 Risk Assessment

The Risk Assessment identifies the natural hazard risk to the Pala Band of Mission Indians and its tribal members and visitors. The risk assessment looks at current as well as future vulnerabilities based on current and future development of structures and infrastructure.

Chapter 5 Capability Assessment

The Capability Assessment looks at the Tribe's ability to mitigate risk pre- and post-disaster.

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Chapter 6 Mitigation Strategy

This chapter provides a blueprint for reducing losses identified in the Risk Assessment. The chapter presents the overall hazard mitigation goals and then identifies mitigation actions in priority order. Where applicable, funding sources are identified, as are responsible persons or departments.

Chapter 7 Plan Maintenance

The Plan Maintenance chapter establishes a system and mechanism for periodically monitoring, evaluating, and updating the Hazard Mitigation Plan. It also includes a plan for continued public outreach and monitoring the implementation of the mitigation actions identified.

Appendices

The Appendices include documentation regarding the planning process, such as Pala Environmental Department Advisory Group sign-in sheets and the Public Preparedness Survey results. In addition, resources supporting the risk assessment are included.

1.6 Plan Updates

D1. Was the plan revised to reflect changes in development? [44 CFR §201.7(d)(3)]

a. Does the plan describe changes in development that have occurred in hazard prone areas since the last plan was approved?

1.6.1 Changes in Development

The 2020 Hazard Mitigation Plan includes all of the changes in development on the Reservation. These include new infrastructure, the RV Park, and new homes. The Tribe builds to the current California Building Code and avoids building in high hazard areas. The figure below shows the location of new structures, businesses and infrastructure. These areas are described more completely in the following chapter and then analyzed in terms of risk in Chapter 4.

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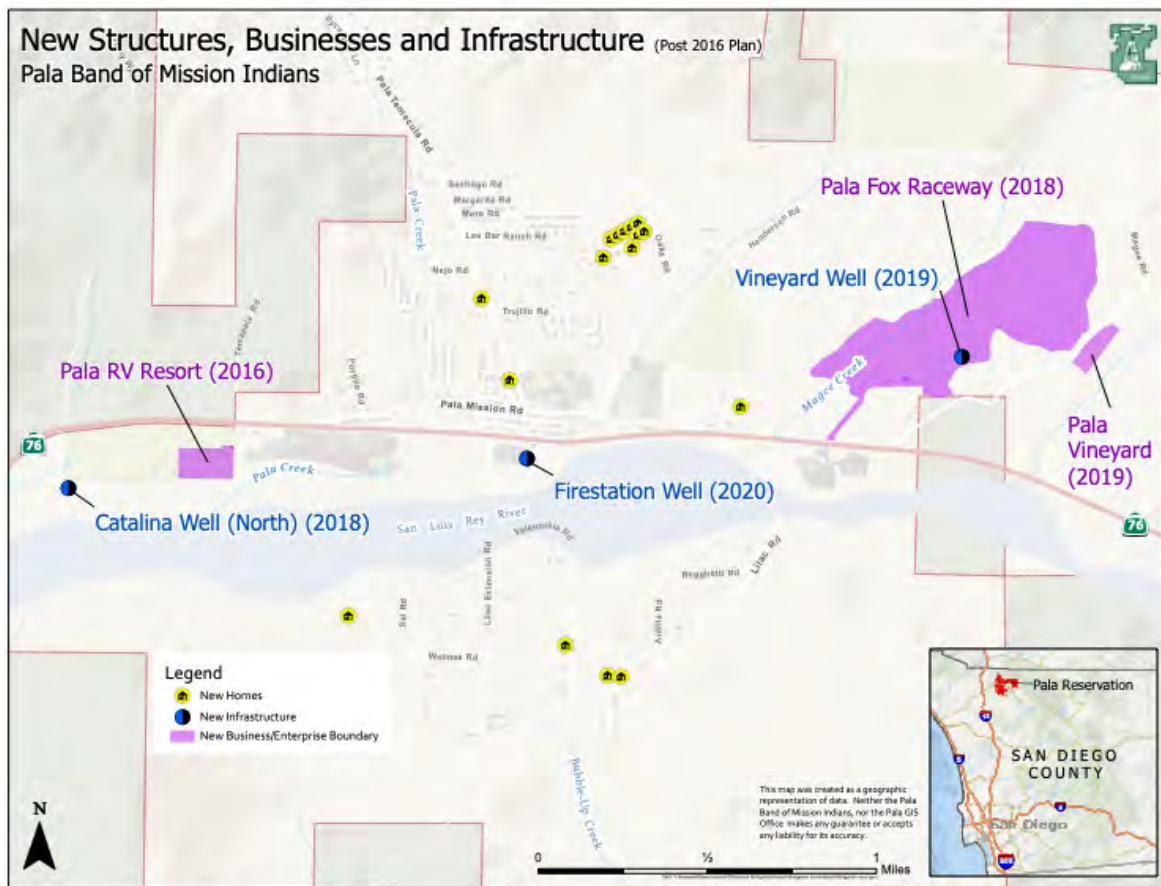


Figure 1. New Structures, Businesses and Infrastructure.

1.6.2 Mitigation Action Status

D2. Was the plan revised to reflect progress in tribal mitigation efforts? [44 CFR §201.7(d)(3) and 201.7(4)(iii)]

a. Does the plan describe the status of each mitigation action and/or project identified in the previous plan?

b. For those actions not completed, does the plan provide a narrative describing the status (for example, a description of why the action is no longer relevant)?

c. Does the updated plan describe how the tribal government incorporated the previous mitigation plan into other planning mechanisms, as applicable?

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The table below indicates the current status of mitigation actions named in the 2016 Hazard Mitigation Plan. Many of these actions were carried forward, although slightly revised, for implementation between 2020 and 2025.

Table 2. 2016 Mitigation Action Status.

Priority Order	Mitigation Action	Status	Description
1	Hazard Mitigation Plan	Completed + To Be Continued	The current (2016) Hazard Mitigation Plan has been maintained and will be completely updated for re-adoption in 2020.
2	Water Conservation Outreach	Completed + To Be Continued	Pala Environmental Department currently conducts annual outreach on the importance of water conservation through flyers, Tribal newsletter and PED website articles, social media posts, as well as a variety of workshops/pilot programs on the topic.
3	Water Table and Drought Education	Completed + To Be Continued	Pala Environmental Department currently conducts annual outreach on how drought affects Pala's groundwater levels through flyers, Tribal newsletter and PED website articles, social media posts, as well as a variety of workshops/pilot programs on the topic. Additionally, the Tribe received a FY20 BOR Grant to install smart water meters that will enable residents to finally see how much water they use at home.
4	Wildfire Education	Completed + To Be Continued	Pala Fire Department holds an annual Open House Education Event (October). They also provide educational flyers, updates to Tribal newsletters, and Rez Radio email notices. They do NOT send anything to community member homes.

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Priority Order	Mitigation Action	Status	Description
5	Clear Brush Around Homes	Completed + To Be Continued	Tribal members can make request to Chairman Smith for brush removal; he assigns the duty to either Tribal Services or Pala Fire Department.
6	Clear Storm Water Channels	Partially Completed / In Progress	Pala Tribal Services should work with Pala Environmental Department in order to obtain necessary permits BEFORE clearing storm water channels/culverts.
7	Building Codes	Completed + To Be Continued	Pala Housing Department currently uses the building codes set by the California Building Standards for all Tribal construction projects that they oversee.
8	Road Signage	Partially Completed / In Progress	Tribal Services installed the last set of road sign updates and has been working with the Pala GIS Department on the matter as well.
9	Drought Resistant Landscaping	Completed + To Be Continued	If the Tribe installs landscaping at a new housing site, they try to use drought resistant landscaping in order to conserve water.
10	Sycamore Drainage	Partially Completed / In Progress	Pala Tribal Services should work with Pala Environmental Department in order to obtain necessary permits BEFORE clearing storm water channels/culverts.
11	Hazard Data	Partially Completed / In Progress	Pala GIS Department collects fire footprint outlines, and the Pala Environmental Department provides areas with flooding issues as well. This data has been used to make maps, but the tribe should start a natural disaster tracking/database.

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Priority Order	Mitigation Action	Status	Description
12	Solar on Buildings	Completed + To Be Continued	Pala Housing Department installs solar panels on new Tribal housing in order to be as efficient with energy as possible.
13	Infrastructure Improvements	Partially Completed / In Progress	Work has been done sporadically. The Tribe would like to develop a plan for future work because improvements are necessary.
14	Recycled Water	Partially Completed / In Progress	The Tribe has installed purple waterline that provides recycled water to the Duker Grove. Plans to bring recycled water to either the Casino or the Pala Administration Grounds have been delayed.
15	GIS Data	Completed + To Be Continued	The Pala GIS Department continues to maintain the Tribe's database, constantly adding new items as they are built on the Pala Reservation.
16	Disaster Training	Completed + To Be Continued	Pala Fire Department conducts educational outreach to the local elementary school during Prevention Month (October), which details how to respond in natural disasters. They also provide educational flyers, updates to Tribal newsletters, and Rez Radio email notices. They do NOT send anything to community member homes.
17	TERT Team	Delayed	Pala Fire Department has NOT YET put a TERT together (although maybe some of the same work is being done by the PEDAG).
18	Address System	Partially Completed / In Progress	Pala's GIS Department has been working with the Pala Fire Department in 2019 and 2020 to update all addresses on the Pala Reservation. They have held two community workshops on the subject.

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Priority Order	Mitigation Action	Status	Description
19	Disaster Supply Facility	Delayed	The Tribe has not developed a facility for emergency supplies; however, a makeshift version was developed in response to Covid-19. The Tribe intends to develop this type of facility in the future.
20	Maintain Radio Station	Completed + To Be Continued	The existing radio station is currently being maintained and provides updates on all natural disasters and other emergencies that may affect the reservation.
21	Pala Website	Completed + To Be Continued	Pala Environmental Department contracts with an IT Contractor to update both the Tribe's and the Pala Environmental Department's websites with information on natural disaster related information/actions.
22	Topographical Survey	Partially Completed / In Progress	Pala Environmental Department obtained a FEMA grant (FY20) to begin some of this work, specifically, to look at flooding areas along the Tribe's main river/creeks. The outcome will be a model/map of flood inundation areas (source creeks/river; not covered is overland sheet flow flooding).
23	Soil Data	Cancelled	This is not considered necessary.
24	Pala Temecula Road Flooding	Delayed	This has to be done in coordination with the County. Pala Environmental Department recently discovered that Trujillo Creek jumped out of its banks a couple of years ago, redirecting substantial flow through the shooting range, Oaks neighborhood, and cutting across Pala Temecula Road, causing substantial flooding. Once the banks have been repaired, this should alleviate some (but not all) flooding on Pala Temecula Road).

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Priority Order	Mitigation Action	Status	Description
25	Bubble-Up Creek Flooding	Delayed	No work has been done on this, but it will be kept for the 2020 plan update.
26	New Water Tank	Delayed	No work has been done on this, but it will be kept for the 2020 plan update.
27	Pala Lilac Road Flooding	Delayed	No work has been done on this, but it will be kept for the 2020 plan update.
28	Environmental Assessments	Completed + To Be Continued	Pala Environmental Department conducts assessments when permits require
29	Ham Radio	Partially Completed / In Progress	Rez Radio started on this project and held a community meeting to get people interested; they were in the process of recruiting candidates to study for licensing in March. This project has been put on hold for now, due to the coronavirus pandemic.
30	Community Garden	Partially Completed / In Progress	Pala Environmental Department is currently installing a community garden / native plant demonstration area right next to the Pala Administration Building. This garden will be open to the public for vegetable and cultural plantings and used for youth education.
31	Porous Surfaces	Delayed	No work has been done on this, but it will be kept for the 2020 plan update.
32	Trujillo Creek	Delayed	This has to be done in coordination with the County. Pala Environmental Department is working on developing a flood model of this creek, which can eventually be used to convince the County to correctly resize (or build a bridge)the culverts on Pala Mission Road (Trujillo Creek).

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Priority Order	Mitigation Action	Status	Description
33	San Luis Rey River Bridge	Delayed	No work has been done on this, but it will be kept for the 2020 plan update.

1.6.3 2016 Incorporation of Mitigation Actions into other Planning Mechanisms

The Pala Environmental Department assumed leadership of the Tribe's Hazard Mitigation Plan which streamlined incorporation of the Plan into multiple planning mechanisms. The Pala Environmental Department actively educates the Tribal community about hazard risks and preparedness and mitigation. They also incorporate hazard mitigation and climate adaptation into their planning documents and work practices. Two good examples of this are the Tribe's Climate Change Adaptation Plan referred to multiple times in this Plan and the Pala Climate Change Preparedness fact sheets included in Appendix C. Additional information regarding incorporation of mitigation actions is reviewed in Chapter 5. Capability Assessment.

1.6.4 Updates Made to the 2016 Plan

The table below indicates where significant content updates were made to the 2016 version of the Plan. It is important to recognize that the entire Plan was updated and revised.

Table 3. Updates Made to the 2016 Plan.

Chapter	Changes Made
1. Introduction	<ul style="list-style-type: none">• Status of 2016 mitigation actions included.• Plan updates included in this chapter.
2. Reservation Profile	<ul style="list-style-type: none">• The Reservation profile was re-organized to show the built environment in terms of Tribal Economy, Tribal Facilities, Tribal First Responder Facilities, and Reservation Utilities and Infrastructure. All of these facilities are included in Chapter 4 and considered for vulnerabilities. New Tribal facilities including businesses and infrastructure are mentioned in the Reservation Profile.

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Chapter	Changes Made
	<ul style="list-style-type: none">The Bureau of Indian Affairs (BIA) added the Pala Rey Youth Camp to the Pala Reservation boundary, making that a total of four in-trust properties.
3. Planning Process	<ul style="list-style-type: none">A new Planning Process was conducted to develop this Plan with the Pala Environmental Department and the PEDAG leading the planning efforts.
4. Risk Assessment	<ul style="list-style-type: none">The 2020 Pala Band of Mission Indians Hazard Mitigation Plan broadened the list of hazards addressed to include: extreme freeze, epidemic/pandemic, air pollution and agricultural pests and diseases. Further, structural fire was added for consideration under the wildfire hazard profile. These additions were made to align with the State Hazard Mitigation Plan. A climate change sub-section was also included for each hazard to address future condition impacts across the Pala Reservation. The Tribe also provided updated data for structure specific building locations (e.g., building footprints), increasing the number of building footprints assessed from 614 to 773. Further, building and content replacement values were estimated for these buildings, thereby enhancing the analysis beyond critical facility evaluation. This also permitted a structure-specific Level 2 Hazus analysis which was conducted for both flood and earthquake hazards. In addition, the Tribe added 23 critical facilities for consideration, including non-structural critical facilities such as agricultural holdings. Lastly, several new reports and information from plan development meetings were incorporated within each profile update to reflect current information on probability, location, previous occurrences, extent, and vulnerability.
5. Capability Assessment	<ul style="list-style-type: none">The Capability Assessment was revised to reflect current capacity of the Tribe to mitigate risk and adapt to climate change. The Tribe has shown development in this area. The Pala Environmental Department has assumed responsibility for this Plan and formed the Pala Environmental Department Advisory Group to assist with its development and implementation.

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Chapter	Changes Made
6. Mitigation Strategy	<ul style="list-style-type: none">The Mitigation Strategy was completely revised to reflect updated mitigation goal statements and new mitigation actions. The goal statements reflect the Tribe's intent to mitigate climate change as well as natural hazards. A Mitigation Action Tracker was developed to assist the Tribe with the implementation of mitigation actions. The Mitigation Action Tracker is an Excel based spreadsheet with automatically populating worksheets.
7. Implementation Plan	<ul style="list-style-type: none">The most significant change to Plan implementation is the Pala Environmental Department has assumed a leadership role in Plan development and implementation. In addition, they formed and lead the Pala Environmental Department Advisory Group which meets monthly to discuss issues related to the environment, hazards and climate adaptation. These monthly meetings illustrate a commitment by the Tribe to mitigate risk and adapt to change.

1.6.4.1 Projected updates to 2025 plan

When the 2016 Plan was reviewed by FEMA, they used the Tribal Multi-Hazard Mitigation Plan Review Crosswalk which made space for comments but not recommendations. Now that FEMA uses the Plan Review Tool, the Tribe intends to address comments and suggestions made by FEMA in future updates of the Plan.

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temperatures and more frequency high heat days mean that an outage is more likely to have an adverse impact, including heat-related conditions (e.g., heat stroke) or requiring closing and evacuations.

4.8 Summary of Overall Risk

Requirement 201.7(c)(2)(ii): A description of the Indian tribal government's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the tribe.

This section summarizes overall vulnerability by looking at several measures including overall risk to critical facilities, PRI and a ranking of hazards, and key points on vulnerability.

4.8.1 Critical Facility Analysis

All critical facilities are assumed to be at risk to air pollution, agricultural pests (agricultural holdings), drought, lightning, earthquake, epidemic/pandemic, erosion, extreme heat, extreme freeze, high winds, landslide, tornado, wildfire, HAZMAT, and lifeline incidents. Limited structural damage is expected from air pollution, agricultural pests, drought, epidemic/pandemic, and extreme temperatures. The table below shows critical facility exposure to hazards with defined boundaries including dam failure, liquefaction, flood, and wildfire.

Table 41. Critical Facility Potential Risk Analysis.

Name	Dam Failure	Liquefaction	Flood (100-year)	Wildfire (WUI)
Allers Lift Station		X		X
Avocado Groves (avocados)				
Blacktooth House (Historical Property)		X		X
Casino Lift Station	X	X		X
Casino Well #1		X		X
Casino Well #2		X		X
Catalina Fields (alfalfa)	X	X	X	
Catalina Well (North)	X	X	X	
Cellular Communications Tower		X		X
Duker Grove (oranges)		X		X
Fallbrook Propane (Rental)	X	X		
Fire Station Lift Station	X	X		
Fire Station Well (North)	X	X	X	X
Hanson Pond Conservation Easement	X	X	X	X

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Name	Dam Failure	Liquefaction	Flood (100-year)	Wildfire (WUI)
Highway Well		X		
KOPA Radio Station		X		X
Lilac East Well (South)	X	X		X
Lilac West Well (South)	X	X		X
McCament Grove (oranges)		X		X
Mission San Antonio de Pala		X		X
Oaks Booster Station (North)		X		X
Oaks Lilac Well (North)	X	X		
Old Tribal Hall		X		X
Pala (Fox) Raceway		X		X
Pala Administration Building		X		X
Pala Casino Warehouse	X	X		
Pala Casino, Resort and Spa	X	X	X	
Pala Child Care Center		X		X
Pala Cultural Center		X		X
Pala EOC and Training Center	X	X	X	X
Pala Fire Station	X	X	X	X
Pala Fitness Center		X		X
Pala Fleet Department/Yard		X		X
Pala Gateway (oranges)	X	X	X	
Pala Learning Center and Library		X		X
Pala Mini Mart, Gas Station and Canopies	X	X		
Pala Postal Annex		X		X
Pala Rey Youth Camp	X	X		
Pala RV Resort	X	X		
Pala Shooting Range		X		X
Pala Skatepark		X		X
Pala Social Services Office		X		X
Pala Transfer Station	X	X		
Pala Tribal Law Enforcement		X		X
Pala Tribal Services Department/Yard		X		X
Pala Utilities Department/Yard		X		X
Pala Vineyard (grapes)		X		
Pala Wastewater Treatment Plant		X		
Pala Youth Center		X		X

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Name	Dam Failure	Liquefaction	Flood (100-year)	Wildfire (WUI)
Rancho Luna Mia (animal husbandry)	X	X	X	
Riverbed East Well (South, new)	X	X	X	X
Riverbed West Well (South, west)	X	X	X	X
Robert's Ranch (oranges)		X		
San Juan Diego Center		X		X
TANF (Tribal Assistance for Needy Families) and TDV (Tribal Digital Village)		X		X
Trujillo Creek Well (North)	X	X		X
Valenzuela Well (South)	X	X	X	X
Vineyard Well (Raceway)		X		X
Vista Well (North)		X		
Vivian Banks Charter School		X		X
Water Tank, Northeast Tank #1 (North)		X		X
Water Tank, Northeast Tank #2 (North)		X		X
Water Tank, Northwest Tank #3 (North)		X		X
Water Tank, Raceway (Raceway)		X		X
Water Tank, Southside Tanks #2 (South)				
Water Tank, Southside Tanks #3 (South)				

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4.8.2 Priority Risk Index Results

The PRI results are presented in the table below, in alphabetical order by hazard.

Table 42. Summary of PRI Results for Pala Band of Mission Indians.

Hazard	Category/Degree of Risk					
	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Air Pollution	Highly Likely	Minor	Large	More than 24 hours	Less than one week	2.7
Agricultural Pests and Diseases	Highly Likely	Limited	Small	More than 24 hours	More than 1 week	2.7
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Earthquake and Liquefaction	Possible	Catastrophic	Large	Less than 6 hours	Less than 6 hours	3.1
Epidemic/Pandemic	Likely	Limited	Large	More than 24 hours	More than 1 week	2.8
Erosion	Highly Likely	Minor	Small	More than 24 hours	More than 1 week	2.6
Extreme Freeze	Possible	Minor	Negligible	More than 24 hours	Less than 24 hours	1.4
Extreme Heat	Highly Likely	Minor	Large	6 to 12 hours	Less than one week	2.9
Flood	Highly Likely	Critical	Moderate	Less than 6 hours	Less than 24 hours	3.3
High Wind	Highly Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.7
Landslide	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Lightning	Possible	Minor	Negligible	Less than 6 hours	Less than 6 hours	1.6
Tornado	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Wildfire and Structural Fire	Likely	Critical	Moderate	6 to 12 hours	Less than one week	3
Dam Failure	Possible	Catastrophic	Large	Less than 6 hours	Less than one week	3.3
Hazardous Materials Incident	Possible	Minor	Negligible	Less than 6 hours	Less than 24 hours	2.1
Lifeline Incident (Power Outage)	Highly Likely	Minor	Moderate	Less than 6 hours	Less than one week	2.8

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4.8.3 Hazard Ranking

The ranking of hazards was based on the PRI results. These were then reviewed by tribal officials. Rankings are presented in the table below.

Table 43. Ranking of Hazards.

Ranking	Hazard
High	Drought Earthquake and Liquefaction Flood Wildfire and Structural Fire Dam Failure
Moderate	Air Pollution Agricultural Pests and Diseases Epidemic/Pandemic Erosion Extreme Heat High Wind Lifeline Incident (Power Outage)
Low	Extreme Freeze Landslide Lightning Tornado Hazardous Materials Incident

4.8.4 Key Points on Vulnerability

All of the hazards addressed in this plan pose a threat to the Pala Reservation, including assets and population within. The hazards of greatest concern are drought, flood, wildfire, earthquake, and dam failure. Each of these hazards has the potential for high consequence losses, including wide-spread damages and/or loss of life. Other hazards still pose a recognizable risk.

- **Air Pollution** – Air quality in the San Diego Air Quality Basin, which includes the Pala Reservation, has shown signs of slowly improving since the 1970s as observed through declines in number of days exceeding standards for ground ozone and particulate matter. Climate change has the potential to worsen air quality as warmer temperatures are conducive to the formation of ground ozone and increased wildfires can worsen air quality.

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- **Agricultural Pests and Diseases** – The Pala Band has several agricultural holdings, including orange groves, avocado groves, a vineyard, and animal husbandry. Pests such as the Asian Citrus Psyllid and the Glass-winged Sharpshooter pose a threat to those holdings. Further, borer beetles present a threat to trees and crops. Swaths of dead trees present a wildfire hazard.
- **Drought:** Extended drought has and will continue to have severe consequences for the tribe. Since 2000, Extreme Drought (the second most severe classification) has occurred in 2002, 2003, 2007, and 2014-2018, indicating droughts may be trending towards a long-term issue rather than occasional occurrence. The Tribe relies on wells for water. Drought may impact water supply, potentially affecting business operations (including the Casino and Hotel) and wildfire fighting capacity. Climate change is projected to increase drought frequency and intensity of the Reservation.
- **Earthquake:** The Pala Reservation resides less than 20 miles from the Elsinore Fault, which is capable of producing M7.0+ events; such an event is noted as one of the most credible earthquake predictions by San Diego County officials. A strong earthquake event could immobilize the Pala Casino Resort & Spa operations, damage houses and infrastructure, overwhelm response capabilities, and pose a substantial risk for fire following earthquake (due to propane leaks). A strong earthquake could also have a cascading impact by causing a failure at the Lake Henshaw Dam.
- **Earthquake (Liquefaction):** Liquefaction risk is widespread on the reservation – 99% of buildings, and nearly all critical facilities (except Southside Water Towers 2 and 3, and the avocado groves) are located in a liquefaction risk area.
- **Epidemic/Pandemic** – The ongoing COVID-19 pandemic has had substantial health impacts (over 70 cases reported in the tribal zip code as of September 2020) and economic impacts on the Reservation. The Pala Casino had to close for two months, and many Tribal members are experiencing job loss.
- **Erosion** – Erosion is an ongoing problem in several spots around the Reservation. Erosion can undermine structure or roadways. Further, erosion from heavy rain events on the Pala Reservation often results in large sediment deposits on roadways.
- **Extreme Freeze** – Extreme cold and freeze events do occur on the Pala Reservation, but are unlikely to significantly impact the Pala Band or its assets. Typical impacts include burst pipes. Freeze events during unexpected times (e.g., mid to late spring) could have negative impacts on the Pala band's agricultural holdings.

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- **Extreme Heat** – Extreme heat events can have severe health impacts, cause blackouts or brownouts, and exacerbate drought and wildfire events. Extreme heat events are expected to increase in frequency and intensity on the Pala Reservation as the climate changes. For example, the number of extreme heat days on the Reservation is projected to increase from a baseline of 4 days per year to upwards of 46 days by 2099.
- **Flood:** Flooding is the highest concern hazard on the Reservation. Minor flooding, often along Pala Temecula Road, occurs frequently during rainfall events. The tribe has reported several events in recent years that have caused major damages on the Reservation, including road closures at stream crossings, on Pala Temecula Road and Pala Mission Road, and repeated flooding in the Oaks neighborhood. Riverine flooding, sheet flooding, flash flooding, and flooding due to lack of drainage infrastructure are all problems on the Pala Reservation.
- **High Wind** – High winds are an annual occurrence on the Pala Reservation, but no specific damages from events have been reported. High winds have the potential to damage structures, cause injuries when objects are moved through the air, or cause power outages and downed trees. Wind events can also accelerate the spread of wildfires.
- **Landslide:** There are several steep slopes along Highway 76 that could experience landsliding or rockfalls. There is an elevated risk following heavy rain or extended drought.
- **Lightning** – Lightning strikes are not frequent on the Reservation but have the potential to occur. Lightning strikes have the potential to cause structure fires or wildfires.
- **Tornado** – Tornadoes are not frequent on the Reservation. A potential tornado on the Reservation would likely be weak (EF0 or EF1) but could still cause significant damage to buildings and infrastructure. Since tornadoes are infrequent, there could be limited public awareness on the Reservation for how to respond during a tornado event.
- **Wildfire:** A major wildfire event would disrupt business and could potentially destroy large portions of the Reservation. It is a serious threat to all residents and visitors as wildfires become more frequent and severe. The majority of structures on the Reservation are within Wildland Urban Interface/Intermix areas.
- **Dam Failure:** Although the Lake Henshaw Dam is maintained at level below capacity due to earthquake risk, a breach could have significant impacts on the tribe. Analysis indicated that there are over 152 buildings (including critical facilities) potentially located in the dam inundation zone. Over half are residential properties. Potentially impacted facilities include the Pala Casino Resort & Spa, which would have devastating economic consequences on the Tribe.

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- **Hazardous Materials Incident** – Hazardous materials incidents are not common on the Reservation but have the potential to occur. The presence of propane storage tanks in several places around the Reservation present a risk for a hazardous materials incident.
- **Lifeline Incident (Power Outage)**: All wells supplying residential and commercial areas on the reservation need power to operate and would not function during a power outage; however, they are generator ready. Power outages have the potential to cause business disruptions on the Reservation, and they present a problem when coupled with extreme heat events.

In the following sections, a mitigation strategy to reduce the risks to current and future populations and structures will be presented.

Chapter 5. Capability Assessment

C1. Does the plan include a discussion of the tribal government's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including an evaluation of tribal laws and regulations related to hazard mitigation as well as to development in hazard-prone areas? [44 CFR §201.7(c)(3) and 201.7(c)(3)(iv)]

a. Does the plan describe the tribal government's existing capabilities to mitigate hazards in the tribal planning area, including pre-disaster and post-disaster hazard management policies and programs.

b. Does the plan include an evaluation of the tribal laws, regulations, policies, programs, and resources related to hazard mitigation and development in hazard-prone areas?

The purpose of conducting the capability assessment is to identify the strengths and weaknesses of the Tribe in terms of its ability to mitigate hazards. The capability assessment serves as the foundation for designing an effective hazard mitigation strategy. It not only helps establish the goals for the mitigation plan, but it also ensures that those goals are realistically achievable under given local conditions. It also helps identify how mitigation actions should be prioritized or implemented.

The capability assessment looks at the Tribe's pre- and post-disaster hazard management capabilities, which are organized according to the following four key types of capabilities:

- **Planning and Regulatory:** Planning and regulatory capabilities refer to the ordinances, policies, laws, plans, and programs that the Tribe uses to guide physical development and growth on Tribal lands.
- **Administrative and Technical:** Administrative and technical capabilities refer to the Tribal government's staff, skills, and tools that can be used for mitigation planning and to implement specific mitigation actions.
- **Financial:** Financial capabilities refer to resources to fund mitigation actions.
- **Outreach and Education:** Outreach and education capabilities are programs and methods that could be used to encourage risk reduction behavior change and communicate hazard-related information.

5.1 Planning and Regulatory

The Tribe is prepared for disasters due to their high level of planning and preparing, and a commitment to building responsibly and mitigating risk. They are also ready to respond to and to recover from a disaster for the same reasons. Beyond the individual responsibilities of Tribal government departments

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(as described under the *Administrative and Technical* section), the Pala Band also maintain additional measures to expand their hazard management capabilities. These are outlined below.

5.1.1 Tribal Ordinances

The Tribe maintains six ordinances that relate directly to hazard mitigation, as shown in the list below.

- 2007 Utility Ordinance
- Land Assignment Ordinance
- Child Welfare Ordinance
- Peace and Security
 - This ordinance regulates activities to implement the policy of the Pala Band that the Reservation Community is entitled to the peaceful and tranquil pursuit of their lifestyles, and that it is entitled to security against harassment, vandalism, disturbing the peace, and other antisocial acts, both in public and private.
- Peace and Security Fines
 - Provides the schedule of penalties/fines for the public or property offenses regulated in the Peace and Security.
- Assignment of Tribal Lands

The Tribe is developing environmental and utilities ordinances which should be implemented within the next five years.

5.1.2 Environmental Management Plans

The Environmental Department has written multiple plans on behalf of the Reservation that support hazard mitigation, as listed below.

- Climate Adaptation Plan
 - Adopted on July 3, 2019, this plan is designed to help the Tribe more proactively prepare for and adapt to the impacts of climate change. The plan builds upon a Vulnerability Assessment completed in 2017 and 2018 which concluded that elevated temperature, wildfire, storms and flooding, and drought present high-risk climate change exposures for Pala. It includes a detailed list of adaptation actions that greatly support mitigation efforts and will help the Tribe to reduce hazard risks.
- Forest Management Plan
 - The Forest Management Plan includes details of plant communities and how to manage them for maximum environmental sustainability and community benefit. It also includes plans for management of wildfire.
- Habitat Management Plan
 - The Habitat Management Plan is similar to the Forest Management Plan but includes all plant and animal species. It also includes fire management plans.
- Tribal Environmental Plan

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- The Tribal Environmental Plan includes long-term strategic goals for the Pala Environmental Program. These goals include mitigation of climate change impacts, including climate-related disasters (e.g. drought).
- Solid Waste Management Plan
 - The Solid Waste Management Plan includes management of Tribal solid waste, including recycling, composting, and hazardous waste management. This plan does not have a disaster mitigation component.
- Integrated Pest Management Plan
 - The Integrated Pest Management Plan includes management of pests such as rodents and insects. This plan does not have a disaster mitigation component, although it does include strategies for reducing habitat for disease vectors such as mosquitoes.
- Source Water Protection Contingency Plan
 - The Source Water Protection Contingency Plan is specifically written to address a loss of source water for drinking, so it is a disaster contingency plan

The Tribe does not have a comprehensive or master plan for Tribal lands, or zoning-type regulations that discourage development or redevelopment in high hazard areas. The Reservation's floodplains have not been studied or mapped by FEMA and the Tribe does not actively participate in the National Flood Insurance Program (NFIP). The planning and regulatory capabilities of the Tribe to manage Tribal lands are also constrained by the unique differences and limited authorities governing the four different types of land as described in the Chapter 2, Planning Area Profile.

However, through the plans listed above and other existing Tribal programs or initiatives to protect the air, water, land, and culture of the Pala Reservation, the Environmental Department's dedicated staff works to make sure that the entire community is living in a safe and healthy environment. In addition, Housing Department staff, responsible for new home building, are aware of the high-risk areas on the Reservation and safe building practices. The Tribe adheres to the California Building Standards Code for all of the buildings they fund and build.

Through the implementation of its guidance for new construction (June 2018), it is the intent of the Pala Band to protect Tribal Assets and to ensure, at a minimum, that contractors are providing the best quality service. For new homes or commercial buildings, the Tribe conducts multiple building/construction inspections to ensure the building code is met. When identifying the sites for new homes the Tribe considers hazards, especially flooding, and frequently raises the slab of new buildings. Investigations may also include an assessment of the risk from other natural hazards such as earthquakes, landslides, sinkholes, soil liquefaction, debris flows, and rockfalls. All new infrastructure, such as power lines, are buried to prevent power outages due to wind or storm damage.

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5.1.3 Pala Fire Department MOUs

The Pala Fire Department maintains multiple memorandums of understanding (MOUs). They are listed below with asterisks next to the agreements that have been added since 2015.

1. California Tribal Fire Chief's Association*
2. Deer Springs Headquarters
3. La Jolla Reservation Fire Department*
4. Mercy Medical Transportation Inc.*
5. North County Fire Protection District
6. Orange Grove Energy, L.P.
7. Pauma Reservation Fire Department*
8. Pechanga Fire Department*
9. Rincon Reservation Fire Department
10. San Pasqual Fire Department
11. Valley Center Fire Protection District
12. Yuima Municipal Water District*

5.1.4 Emergency Evacuation Planning and Recommendations

In 2018, Civil Affairs Team (CAT) 111/112 and 91st Civil Affairs Battalion (Airborne) conducted an evaluation of the Tribe's current emergency preparedness and provided a series of recommendations. The four areas of supported they advised on were as follows:

1. Develop or assist in developing an evacuation plan. Identify evacuation routes and sites for National Guard engineers to create bypasses.
2. Threat Vulnerability Assessment (TVA) of critical infrastructure.
3. Assess water infrastructure security. Identify and address concerns.
4. First Responder/First Aid Subject Matter Expert Exchange (SMEE).

The key closing recommendations from this evaluation included the following:

- Build relationships with all levels of government: to include unofficial forms of government (Admin offices, Fire Station, Tribal Law Enforcement, Community Leaders, Radio Station, etc.) (Always look to Share knowledge and information).
- Emergency Services should take charge and direct the actions of all other entities when it comes to emergency planning, rehearsals, and operations. (implement communications plans and insist on testing them, run full scale rehearsals and coordinate participation by all entities on the Reservation).
- Continue the excellent standard of record keeping, investment and maintenance.
- Determine if Integrated Public Alert & Warning System (IPAWS) is viable and useful for a Tribal emergency notification system.

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5.2 Administrative and Technical

The Pala Government has technical expertise in GIS, fire prevention, housing, and environmental protection. They utilize all of these skills for the sustainability of the Reservation. The following table summarizes the general responsibilities and capabilities of each department or agency on the Reservation and mentions if they are directly involved in emergency management.

Table 44. Administrative and Technical Departments.

Government Department	Department Description
Avocado Grove	Manages and operates the Tribe's 90-acre avocado grove.
Child Care	Operates the Tribe's Child Care Center and works with the Pala Youth Center to provide childcare programs, services, and activities for the Tribe.
Cultural	Cares for Tribal history, culture, and traditions, operates the Cupa Tribal Cultural Center, and organizes cultural events for the Tribe.
Environmental Department	Partially funded by Federal EPA grants and the Tribe, oversees a variety of environmental programs on the Reservation such as air and water quality monitoring; wildlife and habitat conservation and restoration; solid waste management; pest management; and protection of cultural and archaeological sites. The department also implements Pala's climate readiness and adaptation efforts, including the Tribe's Climate Adaptation Plan and a series of community engagement activities such as Planet Pala and an ongoing Climate Change series (further described under <i>Education and Outreach</i>).
Facilities	Responsible for maintaining the Administration Building facility including janitorial duties, grounds keeping, and other routine maintenance tasks.

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Government Department	Department Description
Finance	Reporting to the Tribal Treasurer, administers the Tribal budget, accounts payable, and payroll. Also assists other departments in administering grant funds such as the BIA Fuel Reduction Grant.
Fire	Provides the Tribe with fire protection and responds to a wide range of emergencies on the Reservation and surrounding areas. Additionally, the department maintains mutual aid agreements with other agencies, implements a number of mitigation strategies (such as brush clearing to as brush clearing to maintain defensible space,) and continuously works to further improve the Tribe's ability to mitigate and respond to natural disasters.
Fleet Maintenance	Responsible for vehicle repair and maintenance services for all vehicles owned by the Tribe and operated for Tribal business.
GIS	Manages and maintains the Tribal geographic database and mapping systems and provides a wide range of mapping services for all departments and programs including as builds of Tribal infrastructure such as water and sewer assets, fire department run maps and 911 data.
Housing Authority	Manages Tribal home improvement loan program and ongoing Housing and Urban Development (HUD) grants.
Human Resources	Implements the Tribe's personnel policies and programs, maintains job descriptions for all positions, assists in all employee relations including acquisition and termination.
Information Technology	Manages and maintains all Tribal information systems, including computer networks, phone networks, computer workstations, data and mail servers, electronic security systems, electronic ID systems, etc. One key objective of this department is to ensure all electronic data relating to Tribal business is regularly backed up at both on

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Government Department	Department Description
	and off-site locations so that a proper level of backup redundancy is employed to safeguard against the loss of critical data.
Learning Center	Runs the Pala Learning Center and collaborates with Vivian Banks Charter School to provide educational and enrichment services to the Tribe.
Maintenance	Maintains the Tribe's facility grounds and parks. Personnel from this department would add manpower and useful tools and equipment to response and recovery operations following a natural disaster.
Postal	Picks up and distributes all mail to personal mailboxes (PMBs) as well as mail relating to Tribal business operations.
Raceway	Operates and maintains the Tribe's motocross tracks and organizes all events including professional super cross competitions.
Radio Station	Operates the Tribe's local radio station (Rez Radio), organizes all programming including news and weather reports and syndicated and local programs, and maintains readiness to provide emergency broadcasts should the need arise.
Recreation	Operates the Tribe's Fitness Center, Sports Complex, and Skate Park, and manages all sports and athletic programs on the Reservation.
Senior Services	Provides a number of services for senior citizens on the Reservation such as hot meal delivery and recreation activities.
Social Services	Responsible for the care of community residents and medically related social and emotional needs and ensures that they are safeguarded from harm.

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Government Department	Department Description
Tribal Law Enforcement (TLE)	Provides security services on the Reservation and investigates crimes and traffic collisions in collaboration with other local agencies. Should a disaster occur on the Reservation, TLE employees will be instrumental in emergency and evacuation operations in the community.
Tribal Services	Provides a variety of services for the Tribe such as weekly door-to-door refuse and recycling pickup, septic pumping, and debris removal. In a disaster event, they will be able to assist by removing debris, clearing and repairing roads, emergency diking etc.
Utilities	Manages the Tribe's water and sewer systems including long term planning, capital improvements, routine maintenance and repairs, service connections and metering, as well as road grading maintenance. Should a disaster occur, this department will play a key role in response and recovery by clearing roads and repairing damaged infrastructure critical to the community.
Youth Center	Provides after school activities and education programs for youths in the community.

5.2.1 Pala Casino Spa & Resort

The Pala Casino Spa & Resort operates independently from the Pala Tribal Government, however with capabilities that complement and support the Tribe's ability to mitigate hazard risks. Specifically, they have a Crisis Management Team that is responsible for coordinating all resources that would be deployed for a crisis situation. The team is prepared for multiple types of events including:

- Natural disasters, i.e.: earthquake, storms, flooding
- Terroristic attack domestic or foreign
- Major fire
- Major power outage
- Pandemic
- Bio-chemical attack or large chemical spill or exposure
- Explosion

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- An employee walkout
- A large-scale workplace violence act
- Large scale systems disruption
- A full-scale evacuation contributed by any of the above listed

The Pala Casino Spa & Resort also maintains a Safety Committee. The Safety Committee reviews risk management and safety topics for work and home. They meet regularly to educate employees about topics such as West Nile virus, texting while driving, and family emergency plans.

5.2.2 Flood and Stream Gages

Pala's flood and stream gage program has developed to the point where potential flooding is well monitored. The Tribe has one repeater (bounces the information off to the County), and three gauges that measure rain levels and height of the water in creeks: on Pala Creek (where Pala Temecula Road crosses over Pala Creek), Trujillo Creek (where Henderson Road crosses over Trujillo Creek), and on the San Luis Rey River (at the Lilac Bridge). Each gage measures precipitation and/or stream height logs the data, and then uses a radio pathway to relay the data back to the County's flood warning department. From there, it goes on a real-time computer software program that Tribal emergency managers can view on their computers, showing all of the gages and their measurements. Pala can also set alarms to warn them about impending flood (i.e., if it rains at a particular gage more than ¼" within 30 minutes, they can have an alarm go off on Fire Station and Environmental Department computers).

Pala's current stream gage network is useful for determining the level of localized flooding, but since all of the gages are in the Pala Valley, they do not provide a lot of warning time to the Tribe/Casino in the event of a large flood. The Tribe would benefit from having additional gages further up the main stem of the SLR River (at Wilderness Gardens; at Cole Grade Road; at Valley Center Bridge) that would provide a crucial extra 10-20 minutes of lead-time to get people out to safety. Additionally, if the Tribe added more gages on Reservation tributary creeks, they would be able to get more accurate data on how much water is coming into the Pala Basin. Quantifying this information would also help with planning for drought. The Tribe has added a mitigation action to address the need for additional stream gages. It is important to note that some of these locations are not on Tribal land.

5.2.3 Pala Rez Radio

Rez Radio 91.3 is a non-commercial FM station owned and operated by the Tribe. The station provides updates on all natural disasters and other emergencies that may affect the reservation. Rez Radio is continuing to work on expanding emergency communications in the valley via amateur ham radio operators. They maintain connections with the Fallbrook Amateur Radio Club 146.175 MHz via the Red Mountain repeater with excellent connection results. They are also in regular communications with Valley Center CERT 144.930 MHz via their repeater on Palomar Mountain. They are working with staff at the Indian Health Clinic in Rincon to familiarize them with equipment given to them by the Red Cross

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which has gone mostly unused and advising them on equipping themselves with more user-friendly handheld units. Testing is scheduled for communications with Rincon to see if an additional repeater is needed to easily reach Pala. After this, Pala Rez Radio plans to organize existing amateur operators in Pala and get new ones licensed with a goal of creating a local Pala emergency communications network via amateur frequencies.

5.2.4 Inter-Tribal Longtime Recovery Foundation

The Tribe is also a member of the Inter Tribal Longtime Recovery Foundation (ITLRF), with Pala Tribal Chairman, Robert Smith, serving as Treasurer. The ITLRF formed in 2007 with a vision to gather and share resources for American Indian people to create resilient communities. Through hands-on Tribal leadership, ITLRF supports all aspects of preparedness and recovery in Tribal nations. The current mission of ITLRF is “to help American Indian people and Tribal Nations in California affected by wildfires and other disasters recover and become resilient.”

5.3 Financial

C2. Does the plan include a discussion of tribal funding sources for hazard mitigation projects and identify current and potential sources of Federal, tribal, or private funding to implement mitigation activities? Requirement 201.7(c)(3)(iv) and Requirement 201.7(c)(3)(v)

a. Does the plan describe the tribal government’s existing funding sources for hazard mitigation actions and/or projects?

b. Is there a general discussion of how the tribal government has used non-FEMA (tribal, private or other federal) funds for hazard mitigation projects?

c. Is there a general discussion of how the tribal government has used FEMA mitigation funding, including HMGP, PDM, FMA, PA (C-G), and FMAG?

d. Does the plan identify potential sources of funding to implement mitigation actions and/or projects?

Considering financial capabilities illustrates the Tribe’s ability to generate funds for mitigating risk. The Tribe has received several grants in the past related to mitigation, these are shown in the table below. In addition, the Tribe receives funding from the casino and gas station as well as from their other small businesses. All of the identified mitigation actions in the following chapter have pre-identified funding sources. The Tribe relies on grant funding for many projects related to infrastructure, climate adaptation

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and hazard mitigation. Grant funding covers some staff positions in addition to project funding. The Tribe received a FEMA grant for the development of this Hazard Mitigation Plan and relies on future funding to update the plan.

Table 45. Grants Funding Received Since 2015 for Hazard Mitigation.

Granting Agency	Grant Title	Project Description	Hazard Mitigation Topics	\$\$	FY Dates
BOR	Applied Science	Pala Tribe Innovative Practices in Hydrologic Data Acquisition & Use for Water Management.	DROUGHT; WATER CONSERVATION	\$111,011	FY20
BOR	Drought Response	Pala Tribe Water Management Tool to Build Drought Resiliency Through Infrastructure Enhancement.	DROUGHT; WATER CONSERVATION	\$598,380	FY20
FEMA	Advance Assistance Planning	<u>Flood Mitigation Projects.</u> Funding to develop a flood model for the Pala Valley (creeks only, no overland flooding) to identify problem flooding area, rank them, & develop a list of mitigation actions.	FLOODING	~\$100k	FY19-20
FEMA	Pre-Disaster Mitigation (PDM)	Update Hazard Mitigation Plan. Funding to update Pala's 2016 HMP.	EMERGENCY PLANNING	~\$100k	FY19-20
USEPA	GAP / General Assistance Program	Numerous Projects over 5 grants, including: seeking and applying for additional grant funding for various mitigation projects; development of a tribal environmental emergency/disaster preparedness plan; develop new tribal ordinances and regulations related to environmental disaster and emergency management planning; develop ongoing partnerships with other local agencies conducting work on climate change and/or hazard mitigation;	EMERGENCY PLANNING; PARTNERSHIP DEVELOPMENT	~\$800k	FY16; FY17; FY18; FY19; FY20
USEPA	CWA Section 106 Water Pollution	Numerous Projects over 5 grants, including: Community outreach on water conservation & flood-related topics; develop a tribal climate change water management policy; develop plan for landscape audit program (identify/evaluate options for water-saving improvements at	WATER CONSERVATION; FLOOD	~\$350k	FY16; FY17; FY18; FY19; FY20

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Granting Agency	Grant Title	Project Description	Hazard Mitigation Topics	\$\$	FY Dates
		residential, govt., and commercial); conduct some water audits throughout community to promote water conservation; inventory and assess stormwater culverts;			
USEPA	CWA Section 319 Nonpoint Source	Numerous Projects over 5 grants, including: Streambank restoration project for Trujillo Creek; develop rain garden pilot/demo site; erosion report for the Trujillo Creek breach through Oaks Neighborhood; built some detention basins and check dams to slow flow, capture overland flow/sediment, and reduce flooding;	FLOODING; EROSION	~\$150k	FY16; FY17; FY18; FY19; FY20
USEPA	Pollution Prevention	<u>Intertribal Pollution Prevention Project</u> . This project provided replicable training and technical assistance (TTA) to 7 businesses for two Native American tribes including P2 assessments, implementation of P2 measures, staff training, data tracking, and other TTA. This P2 TTA will focus on the following: reducing the use of hazardous and chemical substances, energy, water, GHGs, and related costs; training material will then be used to develop a national intertribal P2 program with remote TTA, peer-to-peer exchange, and other P2 capacity building resources.	PLANNING	\$238,000	FY18
BIA	Invasive Plant Management Grant	Removal of invasive plant species along Pala's creeks and river, which are detrimental to wildlife and cause hazards (e.g. reduced flood retention; increased wildfire risk).	FLOODING; WILDFIRE	\$85,000	FY20
BIA	Solar Feasibility	Project: to conduct a feasibility study to review various solar projects around the reservation and prioritizing their implementation. This includes forecasting future energy needs, calculating available solar	SOLAR ENERGY; BACKUP ENERGY	\$85,000	FY19

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Granting Agency	Grant Title	Project Description	Hazard Mitigation Topics	\$\$	FY Dates
		resources/range, evaluating potential technology options, and identifying other legal/ regulatory obstacles.			
BIA	Tribal Transportation Grant	Project: road repair to improve access to drinking water storage tanks; road damages were due to flooding and erosion issues	FLOODING; EROSION	\$186,211	FY19-20
BIA	Adaptation Planning	<u>PBMI Health & Adaptation Planning National Training Projects (total 5 grants)</u> . These projects provide human health focused adaptation planning training, resources, and support to tribes around the country. The training materials developed focused on the following topics: understanding extreme events, and harmful environmental trends/impacts.	EXTREME WEATHER	\$150,000	FY20 (2 grants)
					FY21 (2 grants)
					FY21
SDG&E	CERT - SDGE Community Safety	Setting up a CERT Program, and conducting public prevention outreach	EMERGENCY PLANNING	\$5,000	FY18; FY19; FY20
DOE	DOE First Steps Grant: Pala Energy Options Analysis Project	The primary objectives of this project are to 1) identify energy resources/loads, 2) assess energy needs and production resources, 3) investigate and evaluate supply-side and demand side energy options, and 4) select and prioritize options in an implementation plan.	SOLAR ENERGY; BACKUP ENERGY	\$75,000	FY17

Below are some of the key external funding sources for hazard mitigation and similar risk reduction activities that are available to the Tribe to support plan implementation in the years ahead. As the Tribe pursues the execution of mitigation actions identified in this plan it will look toward these traditional federal and state funding sources as well as other new or emerging funding sources to support long-term resilience, mitigation, and adaptation to natural hazards.

5.3.1 Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) makes grant funding available for a range of mitigation activities via several Hazard Mitigation Assistance (HMA) programs. FEMA recognizes a

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nation-to-nation relationship with tribal governments, and these grant programs provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages. They are not intended to fund repair, replacement, or deferred maintenance activities but are rather designed to assist in developing long-term, cost-effective improvements that will reduce risk to natural hazards.

- **Building Resilient Infrastructure and Communities (BRIC)**

BRIC is a new FEMA hazard mitigation program designed to replace the agency's former HMA Pre-Disaster Mitigation (PDM) grant program, aiming to categorically shift the federal focus away from reactive disaster spending and toward research-supported, proactive investment in community resilience. It is a result of recent amendments made to Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) by Section 1234 of the Disaster Recovery Reform Act of 2018 (DRRA). BRIC will support states, local communities, tribes, and territories as they undertake hazard mitigation projects reducing the risks they face from natural hazards. The BRIC program's guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

- **Hazard Mitigation Grant Program (HMGP)**

The HMGP is authorized under Section 404 of the Stafford Act. The HMGP provides grants to states, tribes, and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. A key purpose of the HMGP is to ensure that any opportunities to take critical mitigation measures to protect life and property from future disasters are not lost during the recovery and reconstruction process following a disaster. HMGP is typically available only in the months subsequent to a federal disaster declaration, as funding amounts are determined based on a percentage of the funds spent on FEMA's Public and Individual Assistance programs.

- **Flood Mitigation Assistance (FMA) Program**

The FMA program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101) with the goal of reducing or eliminating claims under the NFIP. FEMA provides FMA funds to assist states and communities with implementing measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. The long-term goal of FMA is to reduce or eliminate claims under the NFIP through mitigation activities. One limitation of the FMA program is that it is generally used to provide mitigation for structures that are insured or located in Special Flood Hazard Areas (SFHAs) as mapped by FEMA. Federal funding for this nationally competitive grant program is generally an annual allocation (subject to Congressional appropriation) and eligibility is linked to a community's good standing in the NFIP.

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5.3.2 Additional Funding Sources

The table below lists additional funding sources that are potentially available to the Tribe now or in the future to assist with hazard mitigation actions and projects.

Table 46. Funding Sources.

Potential Funding Source	Types of Mitigation Actions/Projects
<i>Federal Funding</i>	
Bureau of Indian Affairs	If the Tribe is federally recognized, they are viewed by DHS-FEMA and the state as a federal entity.
Bureau of Land Management (BLM)	Manages large tracts of BLM land in the western U.S. Much of it is leased to mining and ranching interests; some recreation.
Community Assistance Program (for NFIP)	Supports state floodplain management program through the office of the State NFIP Coordinator.
DHS FEMA Cooperating Technical Partners	FEMA designation for state and local government entities that allows state/local proactive matching for Risk MAP digital flood plain and coastal mapping and flood studies.
Emergency Management Performance Grant	Planning, equipment, education, and outreach for state and local emergency management agencies.
Federal Housing Administration	Variety of housing programs, usually delivered through state housing departments or authorities.
Fire Management Assistance Grant Program	Supports state and local firefighting resources.
Homeland Security Grant Program	Planning, equipment, education, and outreach for state, local, and UASI entities.

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Potential Funding Source	Types of Mitigation Actions/Projects
HUD Community Development Block Grants (CDBG)	Mirrors HMGP; requires congressional budget allocation (usually after catastrophic events). Usually used to match FEMA HMGP grants as well as support housing mitigation projects deemed not cost-beneficial.
HUD Disaster Supplemental Funds	Housing, infrastructure. Can be directed at specific housing groups such as the elderly, low income, etc.
National Dam Safety Program	Supports state dam safety engineers to inspect dams per state/federal dam regulations.
NOAA National Weather Service	National weather monitoring service. Operates Miami National Hurricane Center. SLOSH modeling and training at NHC. Hurricane and TD advisory systems based on instrumentation and hurricane hunter data. Operates system of stations across the country that collect data, verify tornadoes, participate on state emergency weather conference calls. Repository of National Climatic Data Center weather record.
Sustainable Communities Initiative (DOT, HUD, EPA)	Post-disaster redevelopment Infrastructure restoration/hardening
U.S. Army Corp of Engineers	Operates Silver Jackets program, providing technical assistance to states. Dam/levee operation. Post-disaster federally assigned missions, including debris management. GIS and Modeling: debris, floodplain, coast (SLOSH, surge zones). Watershed-based “plans” and solutions Flood prevention analysis, plans, and options. Used to sponsor some acquisition, demolition, and elevation projects. Section 203 Tribal Partnership Program
U.S. Small Business Administration	Post-disaster loans for property owners and businesses for repair and mitigation in counties with SBA declarations.

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Potential Funding Source	Types of Mitigation Actions/Projects
USDA Natural Resources Conservation Service	Post-disaster Emergency Watershed Program (stream and river damage assessment and restoration). This is usually a post-disaster Congressional Allocation. Dam Safety/Levee technical assistance; General Agricultural Technical Assistance.
USDA / U.S. Forest Service	Prime agency for wildfire suppression. National Forest may be used for timber, recreation, fishing, and hunting. These funds do support wildfire suppression.
USGS	Post-disaster high water mark and other perishable data collection through FEMA federal agency cooperative agreements. Operates a coastal monitoring system as well as riverine gauging system. Mapping and GIS.
<i>State/Local Funding (if the Tribe is eligible, they may apply for the following programs)</i>	
Capital Investment Programs	State-specific programs with specific spending goals/initiatives.
Community Economic Development departments	State or local entity for sponsorship of FEMA and other housing programs. Varies per state and county.
Natural Resource, Environmental, Agricultural Departments	State-specific organizations that generally house State NFIP Coordinator (about half are with state EM departments); water pollution, recreation, forestry, agriculture, dam safety (some are also with EM departments); recreation and wildlife habitat; and hunting/fishing agencies.
Smart Growth Management Departments	Some progressive state and local governments have instituted these departments to assure new development or redevelopment adheres to sustainability principles. These can extend beyond LEED to protection of natural resources, and are often overlaid to floodplain, coastal and wetland protection.

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Potential Funding Source	Types of Mitigation Actions/Projects
State Emergency Management/Public Safety Departments	Varies from state Governor/cabinet level to a state department/division of Homeland Security and Emergency Management. The agencies provide technical assistance and funding for: preparedness Planning (state and local); COOP repository for state agencies/universities/colleges); operating EOCs; disaster and mitigation services; hazardous materials response and training; grants management; post-disaster, pre-disaster mitigation, DHS, state EM, EMPG.
State programs to improve stormwater and water/wastewater systems	Regional stormwater management facilities to address volume of water, usually for a one- or two-year storm event. These have become more prescriptive for water pollution control since the 1988 Clean Water Act Reauthorization.
State programs to improve utilities	Usually a revolving loan fund (pass-through from EPA, sometimes state funds added) for water treatment and sewage treatment upgrades. Can include mitigation.
<i>Non-governmental Funding</i>	
Private businesses	COOP Plans; disaster insurance or self-insured (risk spread across all assets); emergency operations plans; corporate emergency management support to state and FEMA: Target, CVS, Walgreens, LOWES, Home Depot for event-specific donations of materials, services, and funds
Public utilities/Private utilities	COOP Plans (which can include generators); different emergency preparedness requirements per state Corporation commission or other entity requirements; usually self-insured; some have EOPs and exercise: nuclear plants required by NRC; private utilities eligible for PA (Section 406 mitigation), HMGP 404
Salvation Army	Post-disaster victim support: sheltering, food, clothing, medicine, cleaning supplies

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5.4 Education and Outreach

An important element of this plan is to identify education and outreach programs and methods already in place for Pala that could be leveraged to promote and implement mitigation activities and communicate hazard-related information. Many Tribal employees and residents are distinctly aware of and have experienced the impacts of natural hazards before, and as a result, their awareness has created a culture of proactively mitigating these risks. However, it is through the effective delivery of the Tribe's ongoing community engagement efforts that this proactive culture of risk reduction can be sustained over time. Below is a brief summary of several education and outreach programs coordinated by the Tribe that relate to or can be used to complement hazard mitigation or emergency management efforts.

5.4.1 Pala Environmental Department Climate Change Series

As a complement to the Tribe's Climate Adaptation Plan, the Pala Environmental Department has launched a series of community engagement initiatives to better inform and prepare the Tribe for the harmful impacts of climate change. The series includes a dedicated website that includes a copy of the Climate Adaptation Plan, along with user-friendly fact sheets for each of Pala's high-risk exposures (Extreme Heat, Wildfires, Flooding and Storms, and Drought). It also includes access to a free interactive training series (offered through a series of live monthly webinars) that provides tools, templates, case studies, and other resources to help build capacity to address the health impacts of climate change. The Climate Change Series also includes information on how Tribal members can get more involved in Pala's climate change preparedness and adaptation efforts.

5.4.2 Planet Pala

Planet Pala was launched by the Pala Environment Department in 2019 with a mission to protect Pala's environment, people, community, culture, and health through culturally and scientifically focused stewardship of Mother Earth. Planet Pala is coordinated through a Planet Pala Advisory Committee comprised of Pala community and tribal members, staff, and partner agencies. Education and outreach products provided through Planet Pala include downloadable fact sheets on all sorts of topics, from butterflies and bees to composting and recycling. Planet Pala is also the place to hear about hands-on workshops, environmental education activities, and events for the whole family. Events include family movie nights featuring environmentally themed films, hands-on environmental activities, and workshops for learning about low-water gardening, native plants, traditional foods, green cleaning, climate change adaptation, and more. Among Planet Pala's most relevant products is a quick-tips guide that promotes hazard awareness and the creation of a family emergency plan.

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5.4.3 Additional Activities

- Pala Environmental Department contracts with an IT Contractor to update both the Pala Band of Mission Indians and the Pala Environmental Department websites with information on natural disaster related information/actions.
- Pala Environmental Department conducts annual outreach on the drought hazard and the importance of water conservation through flyers, tribal newsletter, and Pala Environmental Department website articles, social media posts, as well as a variety of workshops/pilot programs on the topic.
- Pala Environmental Department has developed and provides an educational flyer on preparing for power outages, including a safety checklist and the suggestions for how to stay safe and secure during planned and unplanned outages.
- The Pala Fire Department holds an annual Open House Education Event to reduce their risk to wildfire hazards. They also conduct educational outreach to the local elementary school and provide educational flyers, updates to tribal newsletters, and Rez Radio email notices on a variety of fire safety and emergency preparedness topics. The department's educational initiatives also include lectures, door-to-door notices, and a newly developed newsletter.

Chapter 6. Mitigation Strategy

The hazard mitigation strategy is the culmination of work presented in the planning area profile, risk assessment, and capability assessment. It also represents a thorough review of the Mitigation Strategy portion of the 2016 Hazard Mitigation Plan. It is the result of multiple meetings and thorough public outreach. The work of the PEDAG was essential in developing the mitigation goals and actions included in this chapter. As described in Chapter 3. Planning Process, the PEDAG worked in a consistent, coordinated manner to identify and prioritize the goals and mitigation actions for this Plan.

6.1 Mitigation Goals and Objectives

C3. Does the Mitigation Strategy include goals to reduce or avoid long-term vulnerabilities to the identified hazards? [44 CFR § 201.7(c)(3)(i)]

The PEDAG reviewed the goals from the 2016 Hazard Mitigation Plan and chose to keep them all and to add climate change and climate adaptation statements to them. In addition, they chose to specifically name the four hazards of highest concern, extreme heat, wildfires, flooding and drought. Also included in these goal statements, are the Tribe's biggest concerns as identified through public engagement, and the risk and capabilities assessments. These are flooding, climate change, public hazard awareness. This reflects current priorities on the Reservation. Listed below are this Plan's goal statements.

1. Mitigate risk to people and property from natural hazards and climate change.
2. Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and Tribal facilities due to extreme heat, wildfires, flooding, drought and climate change.
3. Proactively plan to mitigate the risks of natural hazards and climate change by integrating mitigation policies and practices into tribal planning for all departments.
4. Build capacity for hazard mitigation and climate adaptation through regional collaboration.
5. Increase tribal member and tribal employee awareness of natural hazards and climate adaptation by implementing tribal-based education programs.

These goals represent what the Tribe hopes to achieve with implementation of this mitigation plan. These goal statements are consistent with the goals of the 2018 California State Hazard Mitigation Plan and the 2018 San Diego County Multi-Jurisdictional Hazard Mitigation Plan. These goals satisfy the Tribe's primary concerns for the safety of people on the reservation and the protection of their land and culture. Each of these goals is effective in mitigating the multiple hazards identified in this plan.

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6.2 Mitigation Actions

C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with emphasis on new and existing buildings and infrastructure? [44 CFR § 201.7(c)(3)(ii)]

a. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts from each identified hazard?

b. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?

After identifying the five mitigation strategy goals, the PEDAG reviewed the mitigation actions from the 2016 Hazard Mitigation Plan and created a Mitigation Action Status Report. This report includes all of the actions from the 2016 Plan, describes their current status and if the action has moved forward to this 2020 Plan. The Mitigation Action Status Report is included in Chapter 1. A large percentage of actions from the 2016 Plan have been moved into the 2020 Plan and been revised slightly to reflect current needs of the Tribe.

Then the PEDAG considered additional mitigation actions. Mitigation actions represent specific activities the Tribe intends to accomplish to reduce or eliminate risk to natural hazards in alignment with the five goals above. All of the mitigation actions are classified into one of four categories: Local Plans and Regulations, Structure and Infrastructure Projects, Natural Systems Protection, and Education and Awareness Programs. These categories are shown in Table 47 below, and are taken from FEMA's Tribal Mitigation Planning Handbook.¹⁵⁷ The consulting team shared these definitions with the PEDAG to educate them about the different types of mitigation actions that are possible. The chosen mitigation actions are included in Appendix D with their associated Action Category.

Table 47. Mitigation Action Categories.

Mitigation Action Categories	
1. Plans and Regulations	Government authorities, policies, or codes that encourage risk reduction, such as building codes and State planning regulations. This may also include planning studies.
2. Structure and Infrastructure	Modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.
3. Natural Systems Protection	Minimize losses while reserving or restoring the function of natural systems.

¹⁵⁷ Tribal Mitigation Planning Handbook, page 33.

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Mitigation Action Categories	
4. Education and Awareness	Long-term, sustained programs to inform and educate tribal members and stakeholders about hazards and mitigation options. This category could also include training.

In addition to considering the four mitigation action categories, the Hazard Mitigation Committee considered hazards impacting the Reservation. Table 48 lists these hazards with their associated concern on the Reservation as well as potential mitigation actions. This table served to bridge the gap between the risk assessment and the mitigation strategy.

Table 48. Hazard Concerns and Potential Mitigation Actions.

Hazard	Major Concern	Mitigation Actions
Air Pollution	An increase in wildfires can lead to an increase in air pollution.	Mitigate risk to wildfires.
Agricultural Pests and Diseases	Several pests pose a problem and an increase in diseased trees may increase wildfire danger.	Monitor threat and treat for pests. Clear diseased trees.
Drought	Drought conditions limit water availability in all wells and increase the risk of wildfire.	Water conservation measures.
Dam Failure	The Lake Henshaw Dam may cause flooding if it failed due to accident or earthquake.	Clearing potential stream and riverbeds from debris.
Earthquake/Liquefaction	A strong earthquake could hinder Resort & Casino operations and increase wildfire risk due to gas leaks.	Building according to code and educating community how to respond.
Epidemic/Pandemic	The Covid-19 pandemic negatively impacted the Tribe by forcing the closing of the Casino and other businesses.	Education regarding pandemic preparedness and mitigating risk by wearing masks and social distancing.

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Hazard	Major Concern	Mitigation Actions
Erosion	Erosion can increase flooding and make building foundations unstable.	Build away from hazard areas. Monitor erosion and stabilize slopes.
Extreme Freeze	Although rare, extreme freeze may impact crops or cause pipes to freeze.	Watching weather trends and preparing crops to withstand cold. Wrapping exposed pipes. Educating the public about the risk.
Extreme Heat	Extreme temperatures negatively impact vulnerable populations such as elders.	Educate the public about the risk.
Flood	Flash flooding, especially along Wildcat Canyon Road, is a significant concern because it may block the road.	Build above the floodplain and incorporate stormwater management practices.
High Wind	High winds can exacerbate wildfires and increase their risk of occurrence.	Monitor high wind conditions. Maintain and monitor utilities.
Landslide	Has the potential to block roads or damage property.	Map high hazard areas and create safe building guidelines. Monitor roadways.
Lightning	Lightning strikes may impact electrical equipment on buildings especially the Resort & Casino.	Install lightening protection devices on critical facilities.
Tornado	Tornado may cause property damage and damage to vegetation.	Practice safe building practices. Educate community about high wind threats.

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Hazard	Major Concern	Mitigation Actions
Wildfire and Structural Fire	Dry desert like conditions make wildfire a constant threat to the reservation.	Educate community on preparedness for wildfire. Maintain defensible space around all utilities and buildings.
Lifeline Incident	These may include blackouts, or utility disruptions. Any loss of power presents problems for the Reservation.	Generators at critical facilities including utilities.
Hazardous Material Incident	Trucks of many types use Route 76. In addition, some hazardous materials are stored on the Reservation.	Pala Fire Department stays trained and ready to handle incidents on the Reservation.

6.3 Mitigation Action Plan

C5. Does the plan contain an action plan that describes how the actions identified will be prioritized, implemented, and administered by the tribal government? [44 CFR § 201.7(c)(3)(iii)]

a. Does the plan explain how the mitigation actions will be prioritized?

b. Does the plan identify the position, office, department, or agency responsible for implementing and administering each action?

After developing the list of actions, the PEDAG worked with the Consulting Team to classify the mitigation actions into high, medium and low priorities. A point system was devised based on FEMA's Tribal Mitigation Planning Handbook and Mitigation Action Evaluation and Prioritization Worksheet. The following point system and criteria were considered.

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CRITERIA	POINTS	HIGH	POINTS	MEDIUM	POINTS	LOW
LIFE/ SAFETY IMPACT	10	Significant impact on public safety for businesses, residents, properties	6	Direct impact on businesses, residents, properties	2	Minimal/negligible impact on businesses, residents, properties
ADMINISTRATIVE/ TECH ASSISTANCE	5	No additional staff or technical support needed to implement	3	Some administrative and technical support needed to implement	1	Significant administrative and technical support needed to implement
PROJECT COST	5	Low cost (<\$25,000)	3	Moderate cost (\$25,000-\$100,000)	1	High cost to implement (>\$100,000)
OTHER CONSIDERATIONS	5	Strongly supports/ advances other Tribal objectives	3	Supports other Tribal objectives to an extent	1	Does not support other Tribal objectives or policies

Figure 76. Point System for Prioritization.

Using the point system, the PEDAG determined that high priority actions scored in the range of 21-25, the medium actions had a score of 15-20, and low priority actions were between 7-14. The PEDAG reviewed the list of prioritized actions several times. Consistent with a planning process that included qualitative and quantitative analysis, actions were carefully discussed, and results amended to meet the needs of the Tribe. The results of the scoring are included in Appendix D. The scoring system clarified the benefit-cost ratio of the projects and emphasized actions that significantly impact public safety. The Tribe and the PEDAG recognize that actions will not necessarily be implemented in the exact order of priority, but in the order that they receive support and funding.

All of the mitigation actions are shown below in order of priority. All of the mitigation actions are also included in Appendix D, sorted by mitigation categories and sorted by goal statement. All of the hazards identified in the risk assessment have been mitigated with emphasis placed on the high-risk hazards, drought, earthquake and liquefaction, flood, wildfire and structural fire, and dam failure. In addition, a Mitigation Action Tracker was developed to assist the Tribe with sorting, organizing and keeping track of implementation of the mitigation actions. This tool is an Excel-based spreadsheet with pre-populated worksheets.

1	Drought Planning and Community Education	
Action Description	Conduct community outreach on water conservation, including information regarding installation of smart water meters. Promote community member responsibility to practice water conservation.	
High	Problem Addressed	Drought; Extreme Heat
	Responsible Party	Pala Environmental Department
	Cost	Low
	Potential Funding Sources	FEMA; BIA Water Resources; BOR - WaterSMART Program
	Implementation Timeline	NOV 2020 - NOV 2025

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	Hazards	Drought; Extreme Heat
	Critical Facility Protection	No
	Mitigation Category	Local Plans & Regulations
2	Landscaping for Wildfire Mitigation and Drought Resistance	
Action Description	The Tribe will clear brush and debris from around homes and utilities to decrease fire vulnerability. They will also install drought resistant landscaping on new home sites to conserve water.	
High	Problem Addressed	Wildfire; Drought
	Responsible Party	Pala Environmental Department
	Cost	Low
	Potential Funding Sources	BIA
	Implementation Timeline	NOV 2020 - NOV 2025
	Hazards	Drought; Extreme Heat; Wildfire and Structure Fire
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
3	Utilized flood model of Trujillo Creek to facilitate conversation with the County to resize the culverts on Pala Mission Road and Pala Creek.	
Action Description	Coordinate with the County to develop solutions for flooding on Pala Mission Road caused by Trujillo Creek and undersized culverts.	
High	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
4	Hazard Mitigation Plan	
Action Description	Maintain Hazard Mitigation Plan annually and update it for FEMA review every five years.	
High	Problem Addressed	Planning
	Responsible Party	Pala Environmental Department
	Cost	Medium

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	Potential Funding Sources	FEMA
	Implementation Timeline	JAN 2024 - NOV 2025
	Hazards	All
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
5	Develop a ten-year infrastructure improvement plan that includes paving roads, improving drainage, and sustainable power.	
Action Description	The ten-year plan will include a lead authority and a roadmap outlining future work.	
High	Problem Addressed	Planning; Flood; Lifeline Incident
	Responsible Party	Pala Executive Council
	Cost	Medium
	Potential Funding Sources	FEMA
	Implementation Timeline	NOV 2022 - NOV 2025
	Hazards	Drought; Flood; High Wind
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
6	Collaborate with San Diego County on flood control issues.	
Action Description	Many of Pala's water resources crossover county-controlled roads/culverts that are undersized. These areas include Pala Mission Road at Trujillo Creek and at Pala Creek. They also include Bubble-Up Creek where it crosses Lilac Road.	
High	Problem Addressed	Flood
	Responsible Party	Pala Executive Council
	Cost	Medium
	Potential Funding Sources	Tribal Budget
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
7	Wildfire Education and Outreach	
Action Description	Promote family emergency planning and wildfire mitigation techniques to community members.	
High	Problem Addressed	Wildfire; Lightning; Drought; Extreme Heat

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	Responsible Party	Pala Fire Department
	Cost	Low
	Potential Funding Sources	FEMA; BIA grants; NFPA
	Implementation Timeline	NOV 2020 - NOV 2025
	Hazards	Drought; Extreme Heat; High Wind; Lightning; Wildfire and Structure Fire
	Critical Facility Protection	No
	Mitigation Category	Education & Awareness Programs
8	Develop an outreach and training program toward the development and expansion of an Inland Valley CERT.	
Action Description	Collaborate with Long Term Recovery efforts in the region and other tribes. Increase Pala Tribal participation/certification under the Inland Valley CERT Program.	
High	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala Fire Department
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	JAN 2022 - NOV 2025
	Hazards	All
	Critical Facility Protection	Yes
	Mitigation Category	Education & Awareness Programs
9	Build a storage facility for disaster supplies and develop a plan for acquiring, maintaining and distributing the supplies when necessary.	
Action Description	Building on the work done and lessons learned from Covid-19, the Tribe needs to be proactive toward meeting the needs of future disasters. A site should be found, storage building installed, and supply plan should be formalized with timeline built-in to update supplies and contacts.	
High	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala Fire Department
	Cost	Low
	Potential Funding Sources	FEMA, BIA
	Implementation Timeline	JAN 2022 - NOV 2025
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Structure & Infrastructure Projects

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10	Develop a flood mitigation and response plan.	
Action Description	A comprehensive flood mitigation and response plan should be developed, including a review of the 100-year flood model for the Pala Valley, previous flooding issues/sites recorded around the reservation over the last decade, mitigation actions to reduce flooding impacts to homes/businesses/lives, and a response plan with responsible parties clearly defined.	
High	Problem Addressed	Flood; Erosion; Disaster Response
	Responsible Party	Pala Fire Department
	Cost	Medium
	Potential Funding Sources	BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation; EPA / CWA 106
	Implementation Timeline	NOV 2020 - NOV 2022
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
11	Use latest California Building Code Standards when building on the Reservation.	
Action Description	Continue using building codes set forth by the California Building Standards that meet the level of risk associated with all high and moderate hazards for all Tribal construction projects.	
High	Problem Addressed	Planning
	Responsible Party	Pala Housing Department
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	NOV 2020 - NOV 2025
	Hazards	Earthquake and Liquefaction; Flood; High Wind; Wildfire and Structure Fire
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
12	Expand sustainable energy on the Reservation.	
Action Description	Develop a microgrid for the Administration Building and Casino. Install battery storage for residential and commercial buildings with solar panels. Currently completing a solar feasibility study with Department of Energy funding. Participate in Battery Backup Project to provide battery storage to WWTP, Administration Building, Casino, Mini-Mart, and drinking water sources.	
Medium	Problem Addressed	Lifeline Incident
	Responsible Party	Pala Environmental Department

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	Cost	High
	Potential Funding Sources	BIA; DOE grants; Battery Backup Program
	Implementation Timeline	NOV 2020 - NOV 2023
	Hazards	Earthquake and Liquefaction; High Wind; Tornado; Wildfire and Structure Fire; Lifeline Incident
	Critical Facility Protection	No
	Mitigation Category	Structure & Infrastructure Projects
13	Expand the topographical survey model of flood inundation areas with overland sheet flow flood areas and culvert and creek details.	
Action Description	The flood model should be expanded to include surface inundation into neighborhoods, highlighting localized flooding during high intensity precipitation events.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	High
	Potential Funding Sources	BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
14	Identify engineering and planning solutions for areas that flood as a result of insufficient stormwater management. This is part of the Pala Flood Control Plan.	
Action Description	Obtain engineering report and/or stormwater management guidelines to provide appropriate areas to slow/sink sheet flow so that it does not flood neighborhoods.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	High
	Potential Funding Sources	BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations

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15	Develop a stormwater management project to alleviate flooding through the Oaks neighborhood, the shooting range, and on Pala Temecula Road.	
Action Description	Develop and implement plan to increase berm on western slope of Trujillo Creek (breach site), develop stormwater catch basins, and other stormwater/LID techniques to prevent Trujillo Creek from jumping its banks and decreasing surface flow velocity and track through Oaks neighborhood.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	Low
	Potential Funding Sources	EPA CWA 106; BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation
	Implementation Timeline	JAN 2021 - NOV 2023
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
16	Conduct streambank restoration projects to increase flood retention along Pala's creeks/rivers.	
Action Description	Obtain permits well ahead of conducting work on storm water channels and culverts.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	Medium
	Potential Funding Sources	EPA/319 NPS grant; BIA; IRWMP grant; etc.
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Natural Systems Protection
17	Study the flooding and debris problem on Sycamore to identify a solution.	
Action Description	Determine if the flooding on Sycamore is related to culvert maintenance or if the area requires a larger bridge. This builds on the Flood Study conducted by the Tribe.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Environmental Department
	Cost	Medium
	Potential Funding Sources	EPA CWA 106; BIA Water Resources; BOR WaterSMART Program; FEMA BRIC/Flood Mitigation

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	Implementation Timeline	JAN 2021 - NOV 2023
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
18	Develop and expand the early warning systems on the Reservation for multiple hazards.	
Action Description	This includes adding stream gages at the easternmost edge of the reservation, in order to provide additional warning time to those downriver, specifically, Pala Casino and for the purposes of collecting hazard data. This may also include a public warning system for bad air quality days or other emergencies.	
Medium	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala Environmental Department
	Cost	Medium
	Potential Funding Sources	EPA CWA 106; BIA Water Resources; BOR WaterSMART Program; FEMA BRIC/Flood Mitigation
	Implementation Timeline	JAN 2022 - NOV 2025
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Structure & Infrastructure Projects
19	Alleviate Bubble-Up Creek Flooding through stormwater management and flood control.	
Action Description	Obtain engineering report and/or stormwater management guidelines to redirect overland flow from Bubble-Up Creek, through Valenzuela neighborhood. Coordinate with the County to develop a more permanent solution to allow Bubble-Up Creek to cross Lilac Road (e.g. culverts, low bridge) without destroying the road every year.	
Medium	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Executive Council
	Cost	High
	Potential Funding Sources	BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects

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20	The Pala Environmental Department (PED) develops a checklist for other departments to know when their work may need PED consultation.	
Action Description	Once new tribal codes are approved by General Council, a series of checklist documents should be developed by PED for both other tribal departments and community members for various environmental projects that PED should be notified about.	
Medium	Problem Addressed	Planning
	Responsible Party	Pala Executive Council
	Cost	Low
	Potential Funding Sources	EPA / GAP grant; Administration for Native Americans Health and Human Services (ANA grant)
	Implementation Timeline	JAN 2021 - NOV 2021
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Local Plans & Regulations
21	Improve road signage and address system on the Reservation.	
Action Description	A standardized address system and clear road signage facilitates location by first responders. Collaborate with GIS office and hold community workshops on the subject.	
Medium	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala GIS Department
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	NOV 2020 - NOV 2022
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Local Plans & Regulations
22	Collect and organize disaster data by expanding the Tribe's GIS system.	
Action Description	Develop and expand the flood maps/survey levels for roads on the Reservation. The Tribe collects fire footprints and some details regarding flooding areas this needs to be expanded to include number of days of closures or impacts. Have collected data from CalFire that includes fire footprints and soil erosion. Obtain additional data from CalFire; Obtain soil information and/or erosion information from past incidents.	
Medium	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala GIS Department
	Cost	Low
	Potential Funding Sources	EPA GAP; BIA

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	Implementation Timeline	NOV 2020 - NOV 2025
	Hazards	All
	Critical Facility Protection	Yes
	Mitigation Category	Local Plans & Regulations
23	Utilize the Pala Website and the Pala Radio Station to promote hazard mitigation and disaster preparedness. Develop a Ham Radio operator's group to expand notification and communication on the Reservation.	
Action Description	PED should look into feasibility of setting up a Pala Tribal App and/or a text alert system that could provide information/notification to the community during natural disasters/hazards.	
Medium	Problem Addressed	Planning; Disaster Response
	Responsible Party	Pala Radio Station KPRI
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Education & Awareness Programs
24	Connect purple pipeline to Administration Building or Casino to utilize recycled water.	
Action Description	The purple pipeline exists from the WWTP to the end of Henderson/Pala Mission Roads, but is not connected to building sites. Additional engineering and project implementation must be done.	
Medium	Problem Addressed	Drought
	Responsible Party	Pala Utilities Department
	Cost	High
	Potential Funding Sources	BOR WaterSMART grant; EPA WIFIA loan program
	Implementation Timeline	JAN 2024 - NOV 2025
	Hazards	Drought
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
25	Bring new wells online	

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Action Description	There are three newly drilled wells that need to be connected to the Tribe's drinking water system(s). They are located at the Fire Station Well, Trujillo Creek Well and on the Valenzuela Well.	
Medium	Problem Addressed	Drought
	Responsible Party	Pala Utilities Department
	Cost	Medium
	Potential Funding Sources	FEMA, BIA
	Implementation Timeline	JAN 2021 - NOV 2022
	Hazards	Drought
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
26	Install backup power for the Administration Building and for each public drinking water well, and the Vineyard water system.	
Action Description	Additional generators and/or alternative power storage sources should be installed at both drinking water wells and critical agricultural groves, as well as at critical infrastructure (e.g. Pala Administration Building) to protect lives and vital economic revenues during hazards.	
Medium	Problem Addressed	Lifeline Incident
	Responsible Party	Pala Utilities Department
	Cost	Medium
	Potential Funding Sources	FEMA
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Lifeline Incident
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
27	Develop a solution for the water in the dock area of the Casino the pumps are running continuously which stresses the wastewater treatment plant.	
Action Description	During high precipitation days, low-lying areas in the Casino footprint flood; this water is pumped to the Pala WWTP, stressing the system. Instead stormwater should be re-diverted, treated, and safely released as overland flow.	
Low	Problem Addressed	Flood
	Responsible Party	Pala Casino
	Cost	Medium
	Potential Funding Sources	FEMA
	Implementation Timeline	NOV 2020 - NOV 2022

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	Hazards	Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
28	Public education regarding all hazards with an emphasis on hazards not usually considered such as extreme freeze, landslide, hazardous materials and agricultural pests.	
Action Description	Include information regarding all hazards when educating the public. Pala residents and employees are well aware of high risk hazards such as drought, flood and wildfire but may not be aware of how to mitigate risks to hazardous material incidents, lightning, landslide, and extreme freeze.	
Low	Problem Addressed	Ignorance to low risk hazards
	Responsible Party	Pala Environmental Department
	Cost	Low
	Potential Funding Sources	FEMA
	Implementation Timeline	NOV 2020 - NOV 2025
	Hazards	All
	Critical Facility Protection	No
	Mitigation Category	Education & Awareness Programs
29	Develop a solution to overland flooding on Lilac Road (south) and Pala Temecula Road(north).	
Action Description	Obtain engineering report and/or stormwater management guidelines to provide appropriate areas to slow/sink sheet flow so that it does not flood neighborhoods. Coordinate with County to build appropriate culverts or stormwater channels to safely guide water off of roads and out of homes/yards.	
Low	Problem Addressed	Flood; Erosion
	Responsible Party	Pala Executive Council
	Cost	High
	Potential Funding Sources	BIA Water Resources; BOR WaterSMART; FEMA's BRIC/Flood Mitigation
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Erosion; Flood
	Critical Facility Protection	Yes
	Mitigation Category	Structure & Infrastructure Projects
30	Explore the feasibility of using porous surfaces whenever building on the Reservation to reduce flooding and increase drainage to the water table.	

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Action Description	Any new construction and/or pavement installation project on the reservation should be reviewed for its suitability of utilizing porous pavement to reduce stormwater runoff and increase infiltration.	
Low	Problem Addressed	Flood; Drought
	Responsible Party	Pala Executive Council
	Cost	Medium
	Potential Funding Sources	BIA Water Resources
	Implementation Timeline	JAN 2021 - NOV 2025
	Hazards	Drought; Flood
	Critical Facility Protection	No
	Mitigation Category	Structure & Infrastructure Projects

6.4 Opportunities to Incorporate the Mitigation Plan

C6. Does the plan describe a process by which the tribal government will incorporate the requirements of the mitigation plan into other planning mechanisms, when appropriate? [44 CFR § 201.7(c)(4)(iii)]

a. Does the plan identify other planning mechanisms where hazard mitigation information and/or actions may be incorporated?

b. Does the plan describe the process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?

The Hazard Mitigation Plan is the Pala Band of Mission Indians' primary resource for mitigating risk. It details the risks to and vulnerabilities of Tribal critical facilities, Tribal lands, and the Reservation. It represents the Tribe's strategy for mitigating risk. In addition to the implementation of this Plan, the Pala Environmental Department and the Pala Fire Department will participate in regional emergency management meetings.

The Pala Executive Committee is aware of high hazard areas and the need to mitigate risk wherever it develops on the Reservation. Development in the last five years has included consideration of alternative energy sources and back-up power as well as flood risk and wildfire risk. All new buildings are built to the highest levels of California building codes. The Tribe does not have a formal Master Plan, but they are committed to adhering to the principles of hazard mitigation when building on the Reservation.

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The Pala Environmental Department and the PEDAG developed the list of mitigation actions with the primary goal of integrating these actions with current philosophy and direction that the Tribe is headed. Some specific examples are shown in the table below.

Table 45 Integrating Mitigation Actions into other Programs.

Action	How can this action be integrated into other programs?
Improve road signage and address system on the Reservation.	The GIS Department is working with the Pala Fire Department on this effort it coincides with the Fire Departments outreach and education program. It also supports the Tribes commitment to educating residents.
Expand sustainable energy on the Reservation.	The Tribe has invested significant time and dollars toward adapting to climate change. They have developed several environmental plans including the Pala Climate Change Adaptation Plan. Expanding sustainable energy on the Reservation supports this plan and others.
Develop a flood mitigation and response plan.	The Pala Fire Department and other departments on the Reservation have actively reduced the risk of wildfire on the Reservation. They are concerned with the lack of a formal plan to manage flash flooding. Implementing this mitigation action supports the goals of the Tribe to protect its residents and guests from all hazards.
Develop a ten-year infrastructure improvement plan that includes paving roads, improving drainage, and sustainable power.	The Tribe acknowledges that mitigating risk and sustainable growth are priorities when improving infrastructure. Developing a ten-year plan will provide a road map for the Tribe to undertake to prioritize projects and analyze costs. Ultimately, a ten-year infrastructure improvement plan guides the Tribe toward their goals of sustainability and safety.

Chapter 7. Implementation Plan

The Plan Maintenance process outlines three critical pieces of the mitigation plan.

1. A system for reviewing the implementation of the plan.
2. A schedule and method to keep the plan current.
3. A discussion for how the tribal government will continue to involve the public.

The Pala Environmental Department, specifically the Director, is responsible for the overall maintenance of the Hazard Mitigation Plan. This position is supported by Tribal leadership. The Pala Environmental Department Director is responsible for keeping the Tribal Executive Committee apprised of the status of plan implementation. The Tribal Executive Committee understands the value of this plan, the value of hazard mitigation, and the relationship of the Tribe with FEMA. They intend to continue updating this plan and implementing the plan's mitigation strategies. The Pala Environmental Department Director will work closely with the Pala Environmental Department Advisory Group (PEDAG) to maintain and update the Hazard Mitigation Plan.

Previously, the Pala Business Office and specifically the Business Manager with support from the GIS Specialist updated and maintained the Hazard Mitigation Plan. The Business Office disbanded, and the Environmental Department assumed responsibility for the Plan. The transition was seamless because the Environmental Department has always been involved with the development and implementation of the Hazard Mitigation Plan.

7.1 System for Reviewing Implementation Progress

C7. Does the plan describe a system for reviewing progress on achieving goals as well as activities and projects identified in the mitigation strategy, including monitoring implementation of mitigation measures and project closeouts? [44 CFR §§ 201.7(c)(4)(ii) and 201.7(c)(4)(v)]

A. Does the system for tracking the implementation of mitigation activities and projects identified in the mitigation strategy include a schedule.

B. Does the system noted above identify the tribal department or tribal office responsible for coordination (or non-tribal entity or agency, if the tribe allows)?

C. Does the system noted above describe the role of the agencies/offices identified in the mitigation strategy?

D. Does the system noted above include project closeout procedures?

Implementing the mitigation actions identified in this Plan and meeting the stated goals of the Plan are the most important result of this Tribal Hazard Mitigation Plan. The Tribal Executive Committee, the Pala

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Environmental Department and the PEDAG recognize the value of implementing this Plan. They recognize that future development on tribal lands must coincide with the goals of this Plan.

The PEDAG is committed to working to implement this mitigation Plan and specifically the goals of the Plan. Each committee member recognizes that future development on the Reservation must coincide with the goals of this Plan. The PEDAG meets monthly and will discuss the Hazard Mitigation Plan at a minimum quarterly. The Pala Environmental Department Director will bring the Pala Executive Committee on the status of the Hazard Mitigation Plan goals and actions at a minimum quarterly. In turn, the Pala Executive Committee, or their designees, will brief the General Council quarterly on progress related to mitigating risk on the Reservation. In conjunction, the PEDAG will work to identify ways to integrate other projects on the Reservation with the mitigation Plan.

The Pala Environmental Department Director will initiate documentation of a quarterly report that will: 1) summarize all mitigation planning activities, and actions that have occurred during the quarter, and 2) document the mitigation action status of all actions or projects included in this Plan. This report will be shared with the PEDAG and the Pala Executive Committee. The minutes from each PEDAG meeting will also be included in the Annual Plan Update. The reports and minutes will serve as a permanent record of the mitigation progress for the Tribe. During the PEDAG meetings, the Pala Environmental Department Director may suggest updates to the Hazard Mitigation Plan, and the PEDAG will provide advice and recommendations.

It is essential to track the progress of implementing each proposed mitigation action. For this purpose, the Pala Environmental Department Director will maintain a progress report on each action as well as a comprehensive report with information on all actions. They will present this report to the PEDAG on a quarterly basis. Each goal and mitigation action will be discussed to ensure it is still relevant and cost effective.

The mitigation action-tracking sheet included in Appendix E will be distributed to all PEDAG members and others responsible for mitigation actions. This sheet may be used to track progress toward meeting the goals and objectives established in this Plan. The Pala Environmental Department Director will use the data collected to update the digital Mitigation Action Tracker. The Tribe does not have a formal plan for implementing the mitigation plan into other plans on the Reservation, but that is not viewed as an impediment. It has become the culture of the Tribe to consider hazard mitigation, by incorporating this Plan to develop and plan areas on the Reservation.

7.2 Method and Schedule to Keep the Plan Current

A6. Does the plan include a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within the plan update cycle)? [44 CFR § 201.7(c)(4)(i)]

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A. Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?

B. Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?

C. Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?

According to FEMA regulations, the Pala Band of Mission Indians is required to formally update and adopt this Plan every five years. However, a five-year update is considered inadequate to maintain a current and realistic Plan. In reality, a continual process of monitoring, evaluating, and updating the Plan needs to be in place. During a five-year time period, policies and procedures at the Federal and Tribal level may prompt changes to the Plan in terms of priorities and/or funding. In addition, a major disaster would prompt review and possible modifications to this Plan.

Three key methods to keeping this Plan current are monitoring, evaluating, and updating the Plan. FEMA defines these in the following way:

- Monitoring: Tracking the implementation of the Plan over time.
- Evaluating: Assessing the effectiveness of the Plan at achieving its stated purpose and goals.
- Updating: Reviewing and revising the Plan at least once every five years.

7.2.1 Monitoring

The Pala Environmental Department Director will track the relevance and implementation of the mitigation Plan over the five-year period the plan is current. Monitoring includes holding meetings with the PEDAG and others on a biannual basis, as well as post-disaster, to determine the validity of the plan goals and mitigation actions and to monitor implementation progress. If the PEDAG determines changes are needed to the Plan, the Pala Environmental Department Director, with support of the Pala Executive Committee, will make the changes.

7.2.2 Evaluating

The Pala Environmental Department Director will convene a meeting with the PEDAG to evaluate the planning process and make recommendations for future Plan updates and enhancements. This meeting will take place within three months of FEMA's Approval-Pending-Adoption designation of the Plan. The PEDAG will use the Mitigation Plan Evaluation Worksheet included in Appendix E: Implementation Plan Supporting Materials. This completed worksheet will be used by the PEDAG when the Tribe formally updates the Plan annually. The PEDAG will review the effectiveness of the public outreach strategy,

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particularly the number of meetings held (both team and public), the public preparedness survey, and the communication methods used for interacting with stakeholders. The PEDAG will review the system for gathering mitigation actions and ranking their priority level. The meeting will conclude with a review of the Plan to monitor and update the Plan in the coming years.

7.2.3 Updating

The Pala Environmental Department Director, with assistance from the PEDAG, will take the lead to revise the Plan every five years for FEMA approval. In addition, following any disaster, the PEDAG will review the Plan to make sure that the goals, objectives, and mitigation actions continue to meet the needs of the Tribe. The table below shows a five-year schedule for Plan maintenance. The revised edition of this Plan will include additional data to reflect new homes, businesses, or infrastructure chosen by the PEDAG for inclusion. In addition, the revised Plan will include a revised hazard risk assessment and vulnerability study, a revised capability assessment, and additional or revised mitigation strategies. As the Tribe works to update the Plan, they will consider opportunities to integrate the Plan with other tribal planning mechanisms. In this way, they ensure the Plan integrates with current and future planning efforts.

Table 49. Five-year Schedule to Update the Mitigation Plan.

Timeframe	Actions
Annually	<ul style="list-style-type: none">• The PEDAG meets following any large incidents on the reservation to review the mitigation plan and discuss new funding opportunities.• The PEDAG meets to discuss implementation of mitigation actions.• The PEDAG requests the incorporation of this plan into plans of relevant departments.• The PEDAG works with departments seeking mitigation funding to assist with identifying grant opportunities and completing grant applications.• The PEDAG proceeds with mitigation action implementation.• The PEDAG completes and files biannual reports.
Months 1-12	<ul style="list-style-type: none">• The PEDAG initiates discussion of lessons learned from the development of the 2020 plan.• All annual actions listed above.
Months 13-36	<ul style="list-style-type: none">• All annual actions listed above.
Months 37-48	<ul style="list-style-type: none">• The PEDAG seeks funding for updating this plan.• All annual actions listed above.
Months 49-60	<ul style="list-style-type: none">• The Pala Environmental Department updates this plan according to current FEMA standards.• All annual actions listed above.

In addition, the PEDAG will review this Plan following any disaster. An update will include a narrative of all relevant impacts from the disaster, its effects, and damages to the reservation and its critical facilities. Finally, the PEDAG will also review the mitigation Plan goals, objectives, and actions for priority

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and relevance. Changes to the Plan will be made based on need. The Pala Environmental Department Director will develop the biannual progress reports combined with any disaster write-up, which will serve as the Plan's annual update. These annual reports will be referenced toward the plan update in 2025.

7.3 Continued Public Involvement

A7. Does the plan include a discussion of how the tribal government will continue public participation in the plan maintenance process? [44 CFR § 201.7(c)(4)(iv)]

The Pala Band of Mission Indians involved tribal members, the public, and regional stakeholders in their planning process for development of this plan. The Tribe is committed to involving the public in Plan implementation as well. They have designed multiple mitigation actions that specifically involve the public, such as public outreach and education campaigns. The Pala Environmental Department will educate the community at community events on the status of the Plan and specific projects.

In addition, the Tribe is committed to maintain and improve this mitigation Plan. They are committed to including regional stakeholders in their process, as well as the PEDAG, which includes first responders. Coordinating with these stakeholders is a key part of implementing and maintaining this mitigation Plan. As mentioned above, the Pala Environmental Director will host biannual meetings with the PEDAG for the sole purpose of reviewing the Plan.

The Pala Band of Mission Indians is committed to improving their Hazard Mitigation Plan in years to come. The Tribe continues to collaborate with other tribes in San Diego County, with local governments in their area and with San Diego County and the State of California. The Tribe takes a leadership role in emergency management in the region by participating in many multi-jurisdictions land use and emergency management groups as well as by maintaining a regional Emergency Operation Center (EOC) on the reservation. The Fire Chief will represent the Tribe at countywide emergency management meetings. The Tribe will also engage regional leaders regarding issues related to Route 76 and bordering properties.

Coordination within the government offices of the Pala Band of Mission Indians is another integral part of continuing stakeholder involvement. Fortunately, the Tribal government works easily with the businesses on the Reservation, including the Pala Casino Resort & Spa. Their collaboration will continue to bring success to mitigating risks on the Reservation.

Also included in continued stakeholder involvement is outreach to the General Council. The Tribal Chairman will work toward having risk management and disaster preparedness on the agenda at General Council meetings at least twice a year. Additional training and education sessions may be scheduled for the General Council, Reservation residents and Tribal employees.