

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
	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
	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
	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.