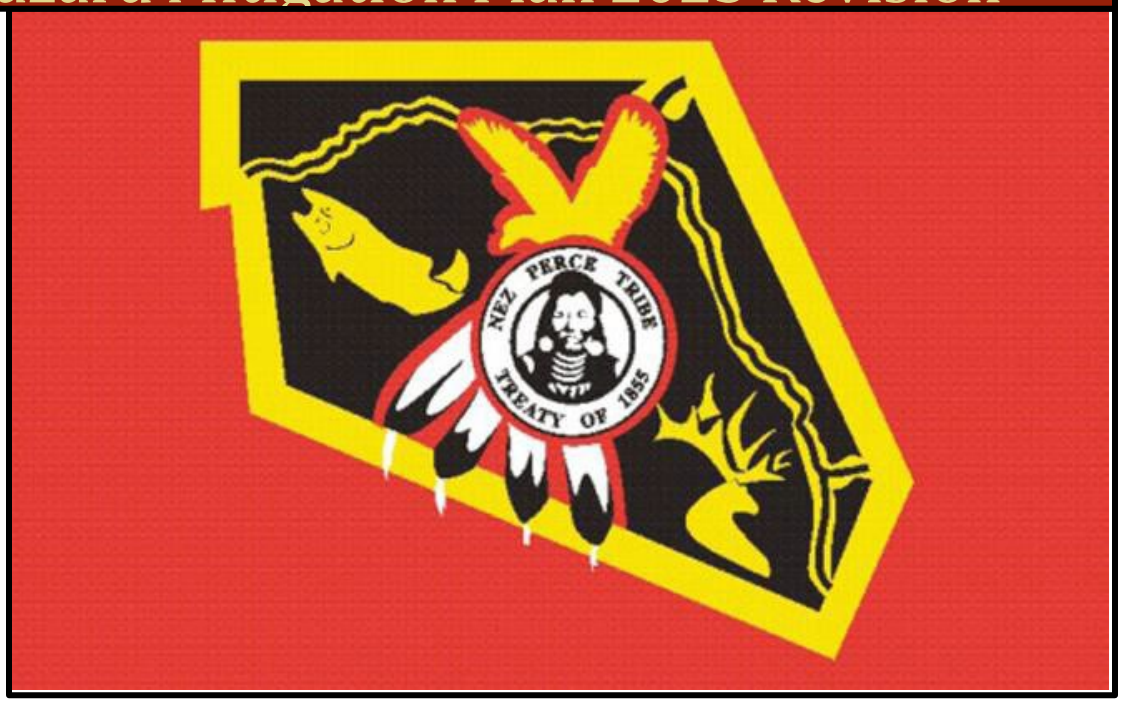
Nez Perce Tribe

Natural Hazard Mitigation Plan 2025 Revision



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Forward

The Nez Perce Tribal Emergency Management is committed to safeguarding life, property, economic interests, and environmental resources throughout the Reservation. Our goal is to inform and educate citizens, provide training and resource coordination, and ultimately reduce the vulnerability of Tribal citizens through comprehensive disaster planning and mitigation.

> "Hazard mitigation involves sustained actions aimed at reducing or eliminating long-term risks to human life and property from various hazards. Natural hazard mitigation planning is a structured process employed by state, tribal, and local governments to engage stakeholders, identify hazards and vulnerabilities, develop long-term strategies to reduce risk and future losses, and implement the plan by utilizing a wide range of resources. A state mitigation plan demonstrates a commitment to mitigating risks from natural hazards and serves as a guide for decision-makers in reducing the impacts of such hazards as resources are allocated."
> ***FEMA – Local Multi-Hazard Mitigation Planning Guidance. July 2008***

The **Nez Perce Tribe Natural Hazard Mitigation Plan Update 2025** was led by the Nez Perce Tribe Hazard Mitigation Steering Committee in collaboration with Fairhaven Solutions, LLC. This Plan meets the requirements for a local natural hazard mitigation plan under 44 CFR Part 201.6. Additionally, it attempts to fully integrate FEMA's Natural Hazard Mitigation Plan processes with the Community Wildfire Protection Plan as outlined in the Healthy Forest Restoration Act.

Table of Contents

Acronyms

AFG	Assistance to Firefighters Grant
ANA	Administration for Native Americans
DMA 2000	Disaster Mitigation Act of 2000
CDC	Center for Disease Control
CFR	Code of Federal Regulations
Cfs	cubic feet per second
EHS	Extremely Hazardous Substance
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FMA	Flood Mitigation Assistance
GIS	Geographic Information System
HMGP	Hazard Mitigation Grant Program
HMPM	Hazard Mitigation Plan
IOEM	Idaho Office of Emergency Management
IDWR	Idaho Department of Water Resources
NFIP	National Flood Insurance Program
NPT	Nez Perce Tribe
NPTEC	Nez Perce Tribal Executive Committee
NOAA	National Oceanic and Atmospheric Administration
PDM	Pre-Disaster Mitigation grant program
Reservation	Nez Perce Reservation
SFHA	Special Flood Hazard Area
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
HMP Committee	Hazard Mitigation Planning HMP Committee
Tribe	Nez Perce Tribe
USGS	United States Geographical Survey

Chapter 1

Background

Natural hazards are inherent properties of the Earth that can influence and impact both the living and non-living features of the natural environment. The scale and potential impact of these hazards vary significantly; for instance, localized windstorms may damage or uproot individual trees, while volcanic eruptions have the capacity to affect or destroy hundreds of square miles of terrain and cause significant mortality among plants and animals. Certain natural disasters occur more frequently in specific regions of the United States: The Pacific Northwest is associated with wildfire, earthquake, and volcanic hazards; the central plains are prone to severe storms capable of producing tornadoes up to one mile wide; and the Atlantic coast periodically faces tropical storms and hurricanes.

While various landscapes exhibit resilience in the face of natural disasters, human populations and developments are markedly less so. Historically, humans have contended with the repercussions of natural disasters, which often include displaced residents, loss of property, costly clean-up and repairs, and substantial time losses, frequently measured in years. In light of increasing populations and developmental expansion, communities are now identifying proactive steps to mitigate the impacts of natural hazards. Mitigation measures encompass preventative actions aimed at enhancing community and individual resilience to natural hazards and reducing recovery costs.

This document aims to accurately identify risks to the people and property on the Nez Perce Reservation and outlines a plan for mitigation efforts in accordance with the Disaster Mitigation Act of 2000. The Federal Emergency Management Agency (FEMA) offers funding opportunities for mitigation actions and mandates a hazard mitigation plan (HMP) that identifies risks and vulnerabilities, proposes mitigation strategies, and includes a planning process featuring multi-jurisdictional participation with public outreach. Furthermore, the HMP Committee seeks to create an easy-to-use document that serves as a key component in making the Nez Perce Reservation more resilient to natural hazards.

The Reservation-wide Hazard Mitigation Plan results from comprehensive analyses, professional cooperation, collaboration, and assessments of hazard risks and other pertinent factors, all aimed at reducing the potential threats posed by natural hazards to people, structures, infrastructure, and unique ecosystems on the Nez Perce Reservation. The Nez Perce Hazard Mitigation Plan was initially approved by the Idaho Office of Emergency Management and FEMA in 2006 and subsequently updated in 2009, 2019, and again in 2025. This document represents an update to the Multi-Hazard Mitigation Plan under the Pre-Disaster Mitigation program and will remain in effect until 2030. This updated plan assists in identifying and assessing various potential hazards while ensuring the Tribe's eligibility for grants and other funding.

The development of the Multi-Hazard Mitigation Plan adheres to the requirements set forth by

FEMA and the Idaho Office of Emergency Management for a reservation-level pre-disaster mitigation plan. The State of Idaho Hazard Mitigation Plan identifies seven natural hazards affecting the state. To maintain consistency, the Steering Committee selected five natural hazard annexes from the state-identified hazards that pose the highest risk for the Tribe. Additionally, the hazardous materials annexed from the previous plan will be carried over to this plan.

The hazards that will be updated for this plan include:

- Wildfire and smoke
- Flooding
- Geological:
  - Landslides
  - Volcanic Eruptions
  - Earthquakes
- Hazardous Materials
- Extreme Weather:
  - Thunderstorms and High Winds
  - Extreme Heat
  - Winter Storms
  - Microbursts
  - Fog and Low Visibility
- Pandemic/Disease
- Cybersecurity

Goals and Guiding Values

HMP Mission State

To reduce the vulnerability of Nez Perce Tribal residents, communities, and enterprises to natural and human-caused hazards through the effective use of mitigation grants, risk assessments, resilient infrastructure planning, and intergovernmental coordination. Our priority is the protection of people, cultural and natural resources, and infrastructure critical to our way of life and economic sustainability.

Vision Statement

To create a resilient and sovereign Nez Perce homeland where proactive planning and strategic mitigation protect our people, culture, and landscapes for future generations.

Value Statement

- **Safety:** Protect lives, health, and property.
- **Community:** Strengthen Tribal connections and support systems.
- **Sustainability:** Enhance environmental and resource longevity.
- **Resilience:** Build capacity to adapt and recover from disruptions.

- **Collaboration:** Work across departments, governments, and communities to achieve shared goals.

- **Cultural Heritage:** Preserve and defend our unique traditions, sacred places, and ecosystems.

Federal Emergency Management Agency Philosophy

Effective November 1, 2004, a Natural Hazard Mitigation Plan approved by the Federal Emergency Management Agency (FEMA) is required for Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM) eligibility. The HMGP and PDM programs provide funding, through state emergency management agencies, to support local mitigation planning and projects to reduce potential disaster damage.

The new local Natural Hazard Mitigation Plan requirements for HMGP and PDM eligibility are based on the Disaster Mitigation Act of 2000, which amended the Stafford Disaster Relief Act to promote an integrated, cost-effective approach to mitigation. Local Natural Hazard Mitigation Plans must meet the minimum requirements of the Stafford Act-Section 322, as outlined in the criteria contained in 44 CFR Part 201. The plan criteria cover the planning process, risk assessment, mitigation strategy, plan maintenance, and adoption requirements.

FEMA will only review Tribal Natural Hazard Mitigation Plans adopted by the tribal governing body §201.7(c)(5). Draft local Natural Hazard Mitigation Plans won't be reviewed. FEMA reviews final versions before local adoption to check if they meet criteria but cannot approve them before adoption.

A FEMA-designed plan will be evaluated on its adherence to a variety of criteria, including:

- Adoption by the Tribal Governing Body
- Multi-jurisdictional Plan Adoption
- Multi-jurisdictional Planning Participation
- Documentation of Planning Process
- Identifying Hazards
- Profiling Hazard Events

- Assessing Vulnerability: Identifying Assets
- Assessing Vulnerability: Estimating Potential Losses
- Assessing Vulnerability: Analyzing Development Trends
- Multi-jurisdictional Risk Assessment
- Local Hazard Mitigation Goals
- Identification and Analysis of Mitigation Measures
- Implementation of Mitigation Measures
- Multi-jurisdictional Mitigation Strategy
- Monitoring, Evaluating, and Updating the Plan
- Implementation Through Existing Programs
- Continued Public Involvement

Plan Overview

Plan Update Process (Chapter 2) describes the process by which the plan will be updated and maintained once it is adopted. This includes both committee and community involvement in all stages of the process.

The following outlines the planning process as described in §201.7(c)(1):

(i) *An opportunity for the public to comment on the plan during the drafting stage and before plan approval, including a description of how the Tribal government defined "public;"*

(ii) *As appropriate, an opportunity for neighboring communities, tribal and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process.*

(iii) *Review and incorporation, if appropriate, of existing plans, studies, and reports; and*

(iv) *Be integrated to the extent possible with other ongoing tribal planning efforts as well as other FEMA programs and initiatives.*

Chapter 2 also describes the HMP Committee's formal plan maintenance process to ensure that the HMP remains an active and applicable document. The process includes monitoring, evaluating, and updating the HMP, monitoring the mitigation measures and project closeouts, and incorporating public input throughout the HMP's 5-year lifespan.

History and description of the Reservation (Chapter 3) provides a general history and background of the Tribe and historical trends for population, demographic, and economic conditions that have shaped the area. Trends in land use and development are also discussed. For public participation in the planning process the Tribal Government defines "public" as current Tribal members.

Risk Assessment Overview (Chapter 4) details the process of identifying hazards and describes the process through which the HMP Committee identified and compiled relevant data on all potential natural hazards that threaten the Reservation and the immediately surrounding area. The information collected includes historical data on natural hazard events that have occurred in and around the Reservation and how these events impacted tribal members and their property.

The descriptions of natural hazards that could affect the Reservation are based on historical occurrences and best available data from agencies such as FEMA, the U.S. Geological Survey, the Idaho Geologic Survey, and National Weather Service. Detailed hazard profiles include information on the frequency, magnitude, location, and impact of each hazard as well as probabilities for future hazard events.

In addition, Chapter 4 identifies potentially vulnerable assets such as people, housing units, and critical facilities. These data were compiled by assessing the potential impacts of each hazard using U.S. Census data, and the Nez Perce Tribe Land Services Program and Housing Authority, and GIS. The resulting information identifies the full range of hazards that the Reservation could face and potential social impacts, damages, and economic losses.

Mitigation Strategy (Chapter 5) first provides an overview of the Tribe's resources in the following areas for addressing hazard mitigation activities:

- Existing ordinances, plans, and codes that affect the physical or built environment.
- The current and potential financial resources to implement the mitigation strategy Chapter 5 also describes the process in which the HMP Committee:
- Verified mitigation goals based upon the findings of the risk assessment and the capability assessment.

- Revaluated a comprehensive range of appropriate mitigation actions from 2019 HMP.
- Reconfirmed mitigation actions to be included in the 2025 HMP's Action Plan
- The appendices include the Adoption Resolution, maps and figures, HMP Committee agendas, and the public involvement process.

Update and Adoption Requirements

Adoption by the governing body indicates a community's intent to achieve the mitigation goals and objectives outlined in the HMP. Adoption validates the HMP and authorizes responsible agencies to carry out their duties. After adoption by the Nez Perce Tribal Council, the plan was reviewed and approved by the Idaho Office of Emergency Management and FEMA. A copy of the resolution adopted by the NPTEC assures FEMA that the Tribe will comply with both CFR requirements. The resolution is included in Appendix 2.

The following is a summary of the plan update requirements for Tribes:

- **Deadlines and Requirements for Regular Plan Reviews and Updates:**
  To apply for a FEMA PDM project grant, Tribal and local governments must have a FEMA-approved mitigation plan. Tribal and local governments must have a FEMA-approved mitigation plan to receive HMGP project funding for disasters declared on or after November 1, 2004. States and Tribes must have a FEMA-approved Standard or Enhanced Mitigation Plan to receive non-emergency Stafford Act assistance (i.e., Public Assistance Categories C-G, HMGP, and Fire Management Assistance Grants) for disasters declared on or after November 1, 2004. State mitigation plans must be reviewed and reapproved by FEMA every three years. Local Mitigation Plans must be reviewed and reapproved by FEMA every five years.

- **Plan updates:** In addition to the timelines referenced above, the Rule includes the following paragraphs that pertain directly to the update of State, Local, and Tribal plans.

  - **§201.3(b)(5) [FEMA Responsibilities]** …Conduct reviews, at least once every three years, of State mitigation activities, plans, and programs to ensure that mitigation commitments are fulfilled….

  - ***§201.7(c)(4) [Indian tribal governments]*** …A system for reviewing progress on achieving goals as well as activities and projects identified in the mitigation strategy.

  - **§201.7(d)(3) [Tribal]** must review and revise their plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval

within 5 years to continue to be eligible for non-emergency Stafford Act assistance and FEMA mitigation grant funding, except for the Repetitive Flood Claims program.

Plan updates must include a system for reviewing the progress of mitigation activities that were identified within the plan. This will involve a comprehensive review and evaluation of each section of the plan and a discussion of the results of evaluation and monitoring activities detailed in the Plan Maintenance section of the previously approved plan. Updates to the plan may validate the information in the previously approved plan or may involve a major plan rewrite. In any case, a plan update is NOT an annex to the previously approved plan; it must stand on its own as a complete and current plan.

The objective of combining these complementary guidelines is to facilitate an integrated wildland fire risk assessment, identify pre-hazard mitigation activities, and prioritize activities and efforts to achieve the protection of people, structures, the environment, and significant infrastructure on the Nez Perce reservation while facilitating new opportunities for pre-disaster mitigation funding and cooperation.

Chapter 2

To comply with FEMA's DMA 2000 (44CFR§201.7(b)) and §201.7(c)(1), documentation of the planning process, including public involvement, is required for an updated local mitigation plan. This section describes how this plan was updated, who participated, and the role of involved agencies.

For Additional information see Appendix – 4

The Plan Update Process

The Tribal Multi-Hazard Mitigation Plan was developed through a collaborative process with outreach to many of the organizations within the jurisdictional boundaries of Tribal lands. Nez Perce Tribe Emergency Management invited stakeholders to planning meetings throughout the planning process, including personnel from wildlife management, historical preservation, forestry and fire, emergency management, air quality, and others. The planning effort began by organizing and convening a Tribal Steering Committee that incorporated all departments of the Tribal Government as well as outside agencies and neighboring jurisdictions.

The Tribe utilized members of the Tribal Emergency Response Planning Team (TERPT) to develop the Hazard Mitigation Plan Committee and begin the update process. HMP Committee meetings began in October 2024, with meetings held in November 2024, December 2024, January 2025, February 2025, March 2025, April 2025, May 2025, and June 2025.

The planning process included seven distinct steps which were in some cases sequential (step 1 then step 2) and in some cases intermixed (step 5 completed throughout the process):

1. **Organization of Resources** – The Tribe and Fairhaven Solutions worked together to develop a comprehensive list of potential participants as well as a project timeline and work plan. The HMP Committee served as the basis for identifying stakeholders that could provide valuable insight into risk assessments and mitigation strategies during the update process.
2. **Collection of Data –** Data was collected for the risk assessment and ancillary data for background information primarily came from the following organizations:
    - Nez Perce Tribal Departments:
        - Emergency Management, Natural Resources, Nimiipuu Health, Forestry and Fire Management, Air Quality, Water Resources, Land Services, GIS, Police
    - State of Idaho

    - IOEM, IDL, IDWR, Fish and Game
- Federal Agencies
    - FEMA, NOAA, USACE, USGS, US Census 2020, HUD, EPA

3. **Field Observations and Estimations:** Fairhaven Solutions, members of the Nez Perce HMP Committee, Idaho State Officials, and FEMA Region 10 Officials collaborated to identify areas of concern to improve understanding of risks, proximity of structures and infrastructure to risk areas, access, and potential mitigation projects. The analyses used in the 2025 plan were reviewed and updated to reflect new hazard vulnerabilities or changes in development.

4. **Mapping –** Nez Perce Tribal GIS Department, IOEM GIS Department, and Fairhaven Solutions developed mapping products as visual tools to support various analyses.

5. **Public Involvement –** the HMP committee with Fairhaven Solutions developed a plan to involve the public from the formation of the committee through public meetings, events, surveys, public review of draft documents, and acknowledgement of the final updated plan by the signatory representatives.

6. **Strategies and Prioritization** – Fairhaven Solutions and the HMP Committee representatives worked together to review the risk analyses and develop realistic mitigation strategies. As part of the 2025 plan update, a section was added for a record of completed mitigation action items, as well as a status report of projects identified. This will provide the Tribe with a tool to track progress for each identified action.
7. **Drafting of the Report –** NMI drafted a final updated report document and worked with members of the planning team to review each section, incorporate public comments, proceed with the state and federal review processes, and adopt the final document.

Tribal Involvement

Individuals who were a part of the HMP Committee, their roles within the planning team, and the jurisdiction they represent are highlighted in Table 1. The HMP Committee made efforts to include individuals, tribal departments, outside state and federal agencies, neighboring counties, and others that have an interest in hazard management on the Reservation.

Table 1) Nez Perce Reservation HMP Steering Committee members.

Name	Department & Title	Role in the Planning Process
John Wheaton	Emergency Management, EM Planner	Project Coordinator
Aaron Miles Sr.	Natural Resources, Manager	EOC Wildland Fire Experience
Anthony Broncheau	Finance, Grants Coordinator	Finance Review
Anthony Williams	Water Resources Environmental Specialist	Hazardous Spill Response
Antonio Smith	ERWM, Communications Specialist	Public Information Officer Alt.
Melissa King	Information Technology, Director	Interoperability
Darren Williams	Legal, Attorney	Provided policy and legal information
Dana Wilson	NPT, Executive Director	Coordination of Logistics
Eric Cash Cash	Wildlife Director	Wildlife Expertise
Ferris Paisano	NPT Executive Committee Law and Order Chair	Emergency Management Rep.
Jackie McArthur	Social Services, Director	Vulnerable Populations
James Stitt	NMPH, Facilities Manager	Health Facilities Expertise
Janet Poitra	NPT Deputy Executive Director	Coordination Logistics
Jeff Handel	Forestry and Fire Management (FFM), FMO	Wildland fire expert
Joe Oatman	NTP Fisheries Manager	Fisheries Expertise
Julie Simpson	Air Quality Program, Coordinator	Weather and air quality expertise
Keith Baird	Tribal Historic Preservation	Cultural Analysis
Ken Clark	Water Resources, Director	Waterways Expertise
Kim Cannon	Land Services, Director	Tribal Land Expertise
Kip Kemak	FFM, Fire Prevention Specialist	Wildland fire expert
Laurie Ames	GIS Department, Coordinator	Mapping & risk analysis
Laurie Paul	IOEM	Advisor
Risto McFeely	N.C. Idaho Public Health Preparedness Director	Public Health Advisor
Douglas Marconi	Housing, Manager	Housing Assistance
Lorette Spaulding	Human Resources, Risk Management	Personnel and Building Safety
Mark Bensen	Law Enforcement, Chief	First Responders
Ryan Oatman	NPT Executive Committee Member	Leadership Perspective
Wayde WhiteEagle	NPT Police Captain	Law Enforcement
Ahhley Zacherle	FEMA, Region 10 Tribal Liaison	FEMA Tribal Perspective
Ryan Bender	Area Field Officer for IOEM	Coordinated training and plans
Stefanie Krantz	Water Resources, Climate Change Coordinator	Provide information on the influence of climate change on hazards.
Tim Droegmiller	FFM, Acting Fuels Specialist	Provide information on the current fuels' conditions across the Reservation.
Bradley Petersen	Fairhaven Solutions LLC	Project Lead for FHS

Public Involvement

Public involvement in this plan was made a priority from the inception of the project. There were several ways that public involvement was sought and facilitated. In some cases, this led to members of the public providing information and seeking an active role in protecting their own homes and businesses, while in other cases it led to the public becoming more aware of the process without becoming directly involved in the planning.

Nez Perce Tribe Emergency Management and *Fairhaven Solutions* worked together to develop two surveys to help educate, inform, and include the public on the process the HMP Committee was involved in. Three public events/meetings were held to involve the public. These activities and meetings were used to facilitate information sharing to the public on the various risk analyses and mitigation action items. Discussions were led, and forms and input were provided to help gather feedback about the plan components and emergency management issues in general.

The events and meetings were in the following locations:

Pi-Nee-Waus - Community Center / Gym, Lapwai City Hall, and online through surveys and reviews. Following the approval by the HMP committee and NPTEC of the draft document, a period of public comment was provided to further incorporate input on the process and results of the updated Hazard Mitigation Plan.

Incorporation of Existing Plans

During the planning process, and when preparing the hazard analysis, risk assessments, and the mitigation action items, the HMP Committee consulted various hazard and mitigation-related plans and studies, including the following:

1. ***Nez Perce Tribe Hazard Mitigation Plan*** (2019): Review of the previous HMP provided a base for reviewing and updating community profiles, hazards, risks, and mitigation action progress.
2. ***Nez Perce Reservation Emergency Operations Plan***: The Nez Perce Reservation Emergency Operations Plan outlines the policies and concepts that guide response at the local level in response to, and recovery from natural and man-caused disasters. The Emergency Operations Plan describes an array of tribal responses and efforts to save lives, limit human suffering, and protect public health, safety, and property, including wildlife, natural resources, the environment, and local economy from the damaging effects of natural and man-caused disaster emergencies.

3. ***Idaho, Clearwater, Lewis, and Nez Perce Counties Hazard Mitigation Plans*:** These HMP plans were referenced for updating hazard profiles and potential mitigation efforts that may overlap with Tribal mitigation strategies.

4. **Clearwater County, Idaho *Community Wildfire Prevention Plan*:** This plan was referenced for updating hazard profiles and potential mitigation efforts that may overlap with Tribal mitigation strategies.

5. **Idaho County, Idaho *Community Wildfire Prevention Plan*:** This plan was referenced for updating hazard profiles and potential mitigation efforts that may overlap with Tribal mitigation strategies.

6. **FEMA Region 10's RiskMAP Team:** Current floodplain Maps and proposed Preliminary Maps for Nez Perce, Lewis, and Clearwater Counties. (Idaho County is currently not a member of the NFIP, but FEMA Floodplain maps were reviewed for the portion within the Reservation boundaries,)

After the adoption of the HMP, the Steering Committee will ensure that elements of the HMP are incorporated into other existing planning mechanisms. The processes for incorporating the HMP into various planning documents will occur as other plans are updated, and new plans are developed. Accordingly, the Steering Committee will ensure that:

- As the Emergency Operations Plan is updated, mitigation action 2.D (emergency evacuation programs) is addressed.

- As the Hazard Analysis Priorities is updated, mitigation action 3.B (dam inundation maps) is addressed.

Plan Maintenance

Evaluating and Updating the Plan

The HMP update was prepared as a collaborative effort among Tribal members on the Steering Committee. The Tribe will continue to use the Steering Committee to monitor, evaluate, and update the HMP. The Emergency Management, Steering Committee leader, will serve as the primary point of contact and will coordinate all local efforts to monitor, evaluate, and revise the HMP.

In order to assist the Tribe to review the 2025 HMP, the status section on the approved Mitigation Action Items, MAI, was designed to allow for progress updates. Additionally, the Steering Committee leader on at least an annual basis will email the Steering Committee and ask each member to review the plan and submit any updates or changes that may need to be made to the plan based on changes to the Hazard Profile, Tribal assets, or the Action Plan. The Steering Committee leader will collect all correspondence and determine if changes need to be made to the plan immediately or should be made prior to the plan update in 2030.

During the third year of adoption, the Steering Committee will undertake the following activities to evaluate the plan and ensure that the HMP is readopted in a timely manner:

- Review all annual email correspondence regarding plan maintenance.
- Thoroughly analyze and update the Risk Assessment.
- Prepare a new Action Plan with prioritized actions, responsible parties, and resources.
- Prepare a new draft HMP and submit it to the Tribal General Council for adoption.
- Submit an updated HMP to the FEMA for approval.

Obtaining Continued Public Involvement

The Steering Committee is dedicated to involving the public directly in the continual reshaping and updating of the HMP. A copy of the plan will be available at the Tribe's Main Office. The Steering Committee will also identify opportunities to raise community awareness about the HMP and the hazards that affect the Tribe. This effort could include attendance and provision of materials at Tribal emergency preparedness and response special events.

Chapter 3

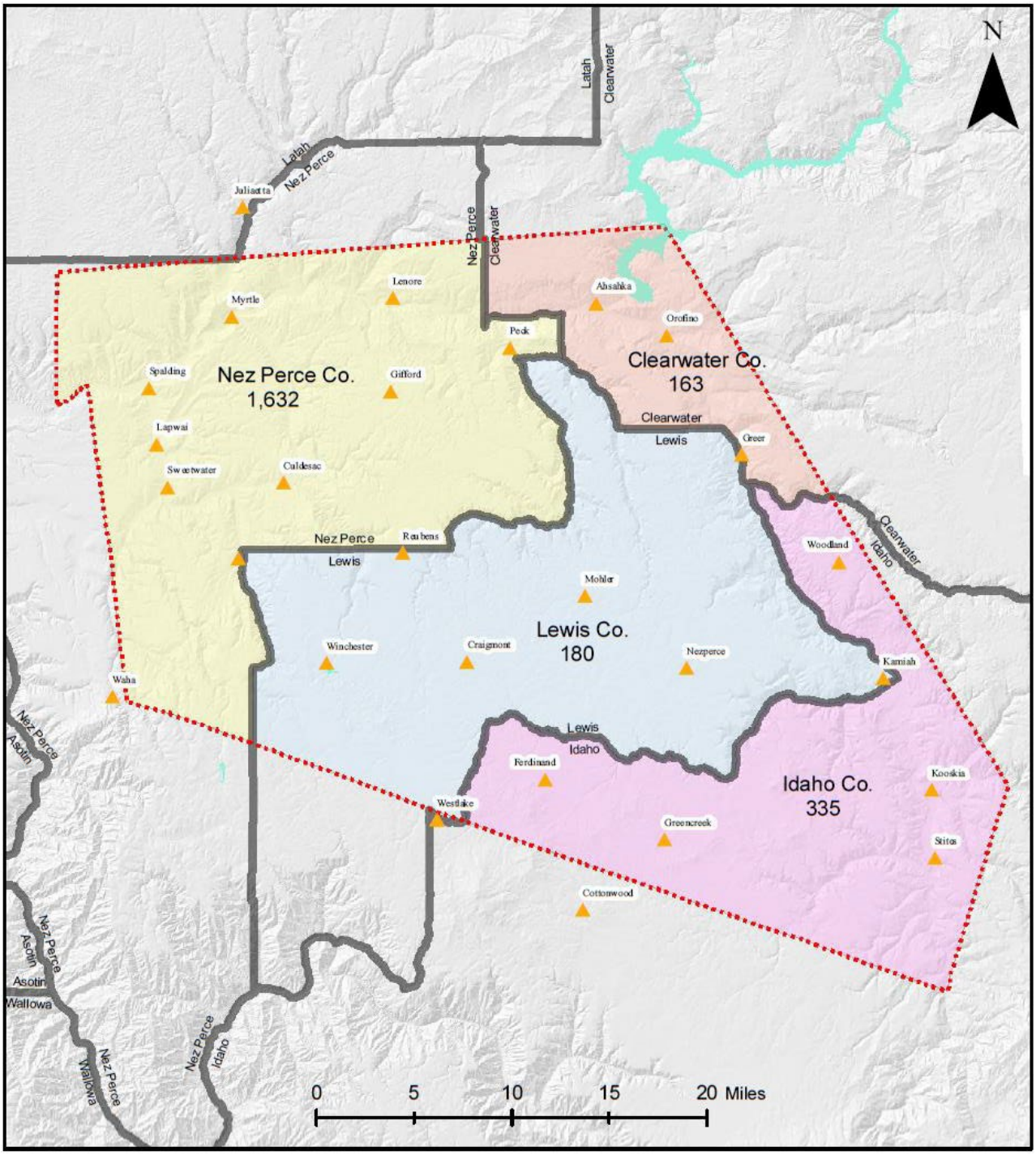
History and Description of the Reservation

The Nez Perce Indians, who call themselves NiMiiPuu, have resided in what is now north-central Idaho, southeastern Washington, and northeastern Oregon for thousands of years. Until the mid-1800s, the tribe's Aboriginal territory included over 13 million acres. The territory is centered on the Snake and Clearwater Rivers and the northern Salmon River. In 1855 the Nez Perce Indians signed a treaty with the U.S. Government reserving 7.5 million acres of land for the Nez Perce Reservation. However, the discovery of gold by the early 1860s prompted the U.S. Government to reduce the Reservation by almost 90 percent, to its current size of 770,000 acres. **(*Gold and the Nez Perce." Native American Netroots*, 19 Apr. 2011, nativeamericannetroots.net/diary/929.)**

Figure 1: Historical and current boundaries of the Nez Perce Reservation.

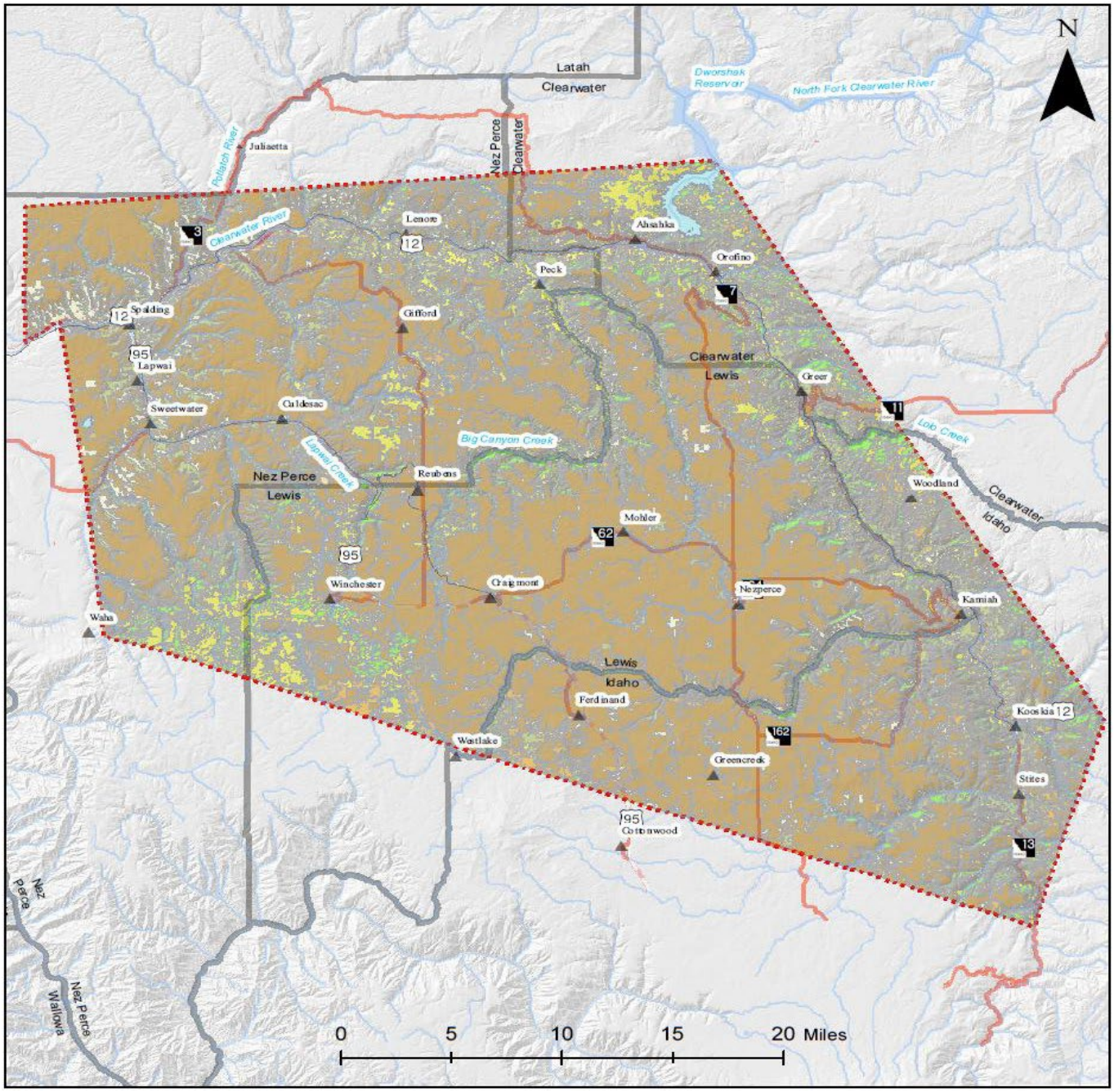
By 1877, with continued pressure to sell off the Nez Perce lands, the U.S. Government tried to persuade a band of Nez Perce Indians to leave Oregon and move to the Reservation. While the tribal chiefs began to prepare to comply, a handful of young warriors attacked some white ranchers in revenge for the rancher killing a warrior's father, thus beginning the 3-month Nez Perce War.

Figure 2: Map of towns and communities on the Nez Perce Reservation and Native American population by County per the 2020 Census.



The Nez Perce first fled to Montana and then to Idaho before heading north toward Canada. On September 30, about 40 miles from the Canadian border, a bitter battle ensued and 5 days later, Chief Joseph surrendered with over 400 other tribal members. During the surrender, the U.S. Government promised to return the Nez Perce Indians to the Reservation, but instead, they were sent to Oklahoma. Most of the Nez Perce-War survivors returned to the Northwest in 1885. Ten years later, the Dawes Severalty Act opened the Reservation to non-Indians. As a result, by 1975, less than 80,000 acres of "checkerboard" land remained under Nez Perce and individual tribal member ownership. Since 1980, a land acquisition program has resulted in an increase of Nez

Figure 3: Different land use areas on the Nez Perce Reservation.



Perce ownership to approximately 100,000 acres, with an additional 40,000 acres held by individual tribal members.

The 1,195.10 square miles of land and 9.22 square miles of water in the current Nez Perce Reservation are located in Nez Perce, Lewis, Latah, Clearwater, and Idaho Counties. Communities and towns within the Nez Perce Reservation include Myrtle, Lenore, Ahsahka, Orofino, Spalding, Lapwai, Gifford, Sweetwater, Culdesac, Greer, Reubens, Winchester, Craigmont, Nezperce, Kamiah, Ferdinand, Greencreek, Kooskia, Stites, Peck, Cottonwood Creek, Jacques Spur, Slickpoo Mission, Mohler, and Clear Creek. Figure 2 shows the locations of towns and communities and population by county. Cottonwood, Waha, and Westlake are located off the Reservation, but they are close to the boundary.

Government

The Tribe is governed by the Nez Perce Constitution and Bylaws, established in 1948 and revised in 1961. The constitution established the Nez Perce Tribal Executive Committee (NPTEC) and a council of all adult tribal members, known as the Tribal General Council. The Executive Committee, consisting of nine members, has the authority to represent the Tribe in negotiations, promote and protect the health, education, and general welfare of Tribal members, administer unrestricted Tribal funds, and set rules governing Executive Committee nominations and elections.

Demographics

Historically, the Tribe had a population of around 6,000, which fell to roughly 1,800 by the 1900s. The decrease in population was due to epidemics and conflicts with white settlers. According to the 2020 US Census, currently the total population within the Reservation boundaries is 18,403. The Tribe's population is 2,423. This includes 753 children (up to 19 years old) and 816 elders (55 years and older).

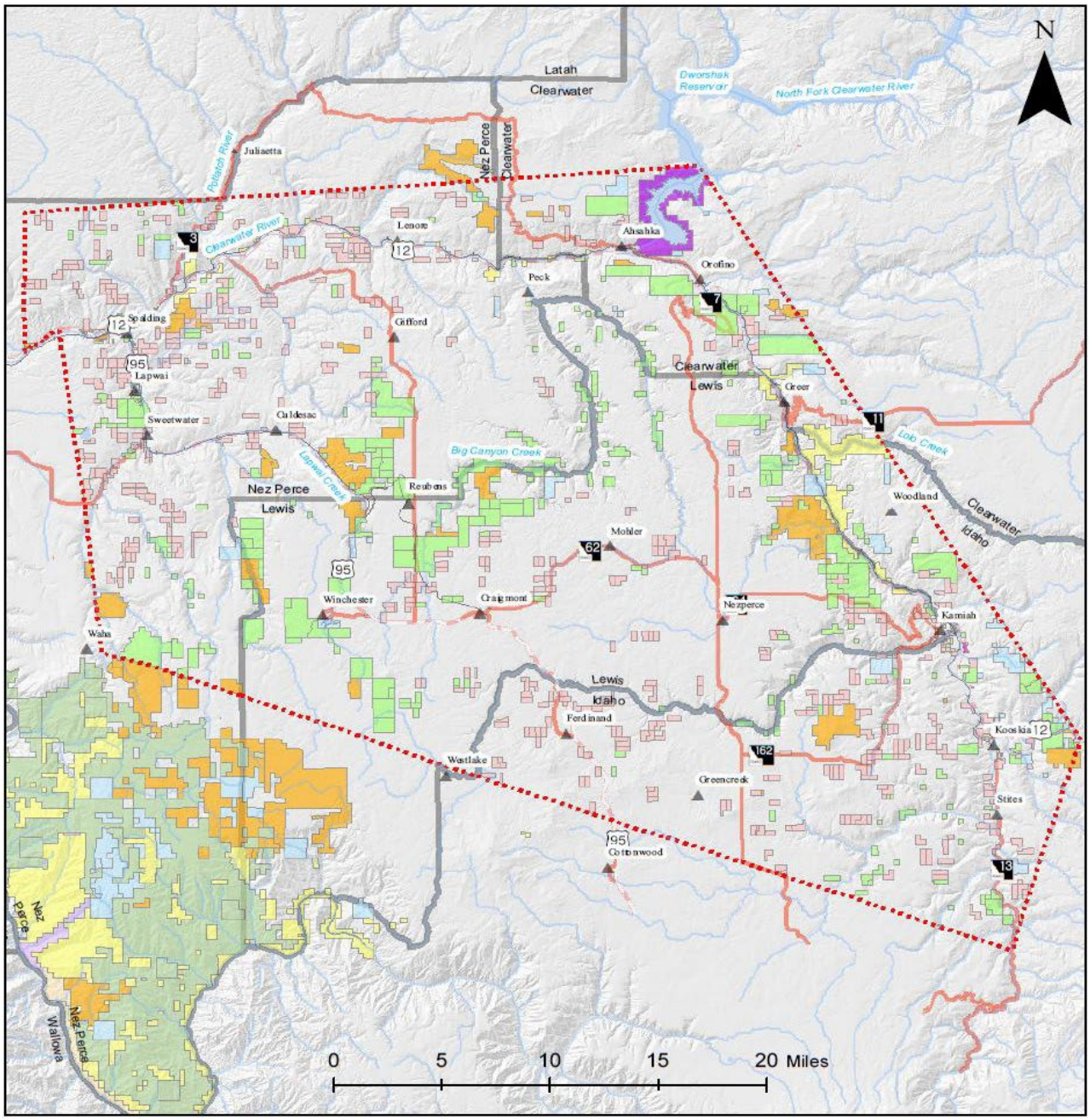
With focuses on natural resources, the Tribe's economic base has traditionally centered around fisheries and forestry. With the construction of the It'se-Ye-Ye and the Clearwater River Casinos the Tribe has diversified its economic base significantly.

Land Use and Development Trends

The Nez Perce Tribe Land Enterprise Subcommittee is responsible for the generation of revenue through land leasing for the benefit of the Nez Perce Tribe as well as the acquisition of land both on and near the Nez Perce Reservation. Over the past 32 years the Tribe has acquired over

62,300 acres of land on and off the Nez Perce Reservation for economic development, timber management, and wildlife management (Figure 3). In 2004-2006, as part of the Nez Perce Snake River Basin Agreement on water rights, approximately 11,297 acres of scattered tracts of public domain (i.e., Trust lands) were identified for transfer to the Nez Perce Tribe. The total acreage of land administered by the Land Enterprise is 110,000 acres with 55,000 acres in Tribal Trust (i.e., no Individual Trust in this total) and 12,000 acres of fee land on the reservation and 39,000 acres of fee land off the reservation. Figure 4 shows land by ownership on the reservation.

Figure 4: Land ownership of the Nez Perce Reservation.



Chapter 4

Risk Assessment Overview

*The requirement of 44 CFR **201.7(c)(2)** for conducting a risk assessment is listed below.*
Understanding the risk to the Tribe requires the identification of each natural hazard that occurs within the jurisdictional boundaries of the Reservation. Profiling each hazard's spatial extent, frequency, likelihood of future occurrence, and duration will help emergency management better understand the potential impacts associated with natural hazards. Recognizing the Tribe's level of exposure to a hazard provides a measure of risk and vulnerability from a given hazard to specific locations within the Reservation (Figure 5).

(c)(2) A ***risk assessment*** that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Tribal risk assessments must provide sufficient information to enable the Indian tribal government to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:

(i) A description of the type, location, and extent of all-natural hazards that can affect the tribal planning area. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

(ii) A description of the Indian tribal government-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. The plan should describe vulnerability in terms of:

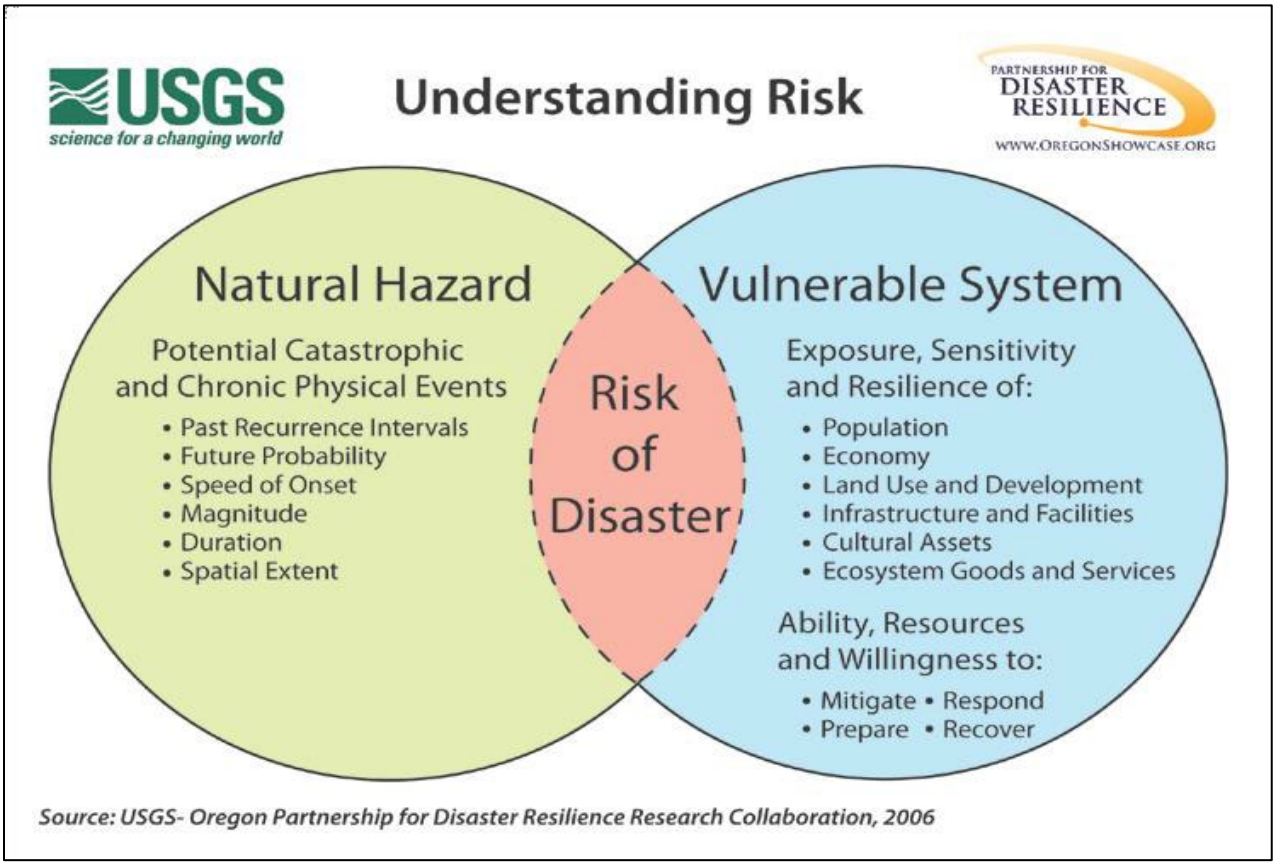
A. The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;

B. An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate;

C. A general description of land uses and development trends within the tribal planning area so that mitigation options can be considered in future land use decisions; and

D. Cultural and sacred sites that are significant, even if they cannot be valued in monetary terms.

Figure 5) Components of risk per the USGS-Oregon Partnership for Disaster Resilience Research Collaboration, 2006.


USGS
science for a changing world
Understanding Risk
PARTNERSHIP FOR DISASTER RESILIENCE
WWW.OREGONSHOWCASE.ORG
Natural Hazard
Potential Catastrophic and Chronic Physical Events
• Past Recurrence Intervals
• Future Probability
• Speed of Onset
• Magnitude
• Duration
• Spatial Extent
Risk of Disaster
Vulnerable System
Exposure, Sensitivity and Resilience of:
• Population
• Economy
• Land Use and Development
• Infrastructure and Facilities
• Cultural Assets
• Ecosystem Goods and Services
Ability, Resources and Willingness to:
• Mitigate • Respond
• Prepare • Recover
Source: USGS- Oregon Partnership for Disaster Resilience Research Collaboration, 2006

Wildland Fire Profile

Wildland Fire Characteristics

Wildland fire behavior is shaped by the complex interaction of three key factors: fuels, topography, and weather. These elements form what is commonly referred to as the *Fire Behavior Triangle* (Figure 13), and any change in one component can significantly influence the effects of the others. Understanding how these factors interact is critical not only for managing active wildfires but also for developing effective strategies to reduce wildfire risk.

Of the three components, fuel is the only one that land managers can directly modify. Therefore, decisions regarding fuel type and distribution, such as reducing fuel loads or altering vegetation—must be made with careful consideration of the region's climate and terrain. Proactive measures like creating strategic fuel breaks, restoring native plant species, and conducting prescribed burns are all examples of fuel management practices that can help mitigate wildfire threats and improve the ability to predict fire behavior.

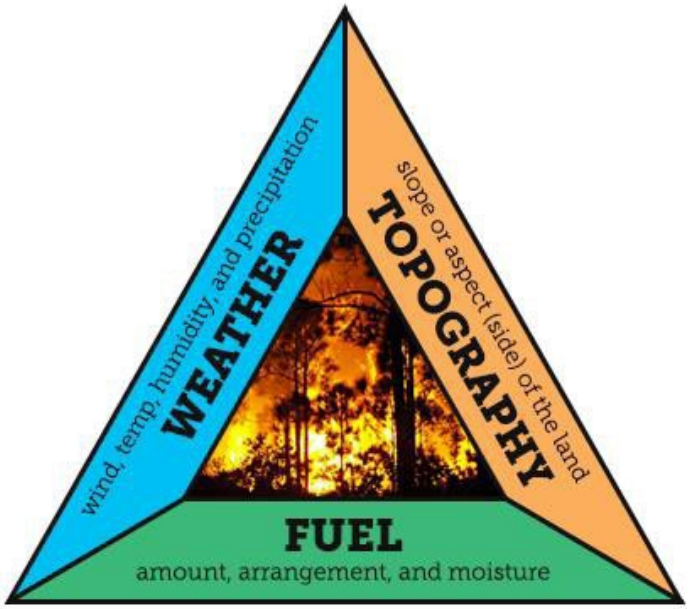


Figure 6: Fire Behavior Triangle www.weatherstem.com

The following section provides a brief overview of each element of the fire environment and how it influences fire dynamics.

Weather

Fire behavior is predominantly influenced by weather conditions. Factors such as wind, moisture levels, temperature, and relative humidity determine the drying rates of fuels and the curing of vegetation. The ignition potential of fuels is also influenced by these factors, and analyzing weather patterns and trends can help predict how likely it is for a certain fuel type to ignite and sustain a fire. Once ignited, wildfire behavior is further affected by atmospheric stability and local and regional weather conditions. Temperature, wind speed, wind direction, precipitation, storm systems, and prevailing winds all impact fire behavior, making weather the most challenging component of the fire triangle to predict and interpret. For instance, during the Yarnell Hill fire in Arizona, which resulted in the deaths of 19 firefighters, a storm cell caused the flaming front to

change direction abruptly by 90 degrees and accelerated up to speeds of 10 to 15 mph.

Topography

The burning behavior of fires in similar fuel types varies significantly under different topographic conditions. Topography affects heat transfer and localized weather patterns, which subsequently influence vegetative growth and the resulting fuels. Variations in slope and aspect can markedly impact fire dynamics. Generally, northern slopes are cooler, wetter, and more productive sites, leading to substantial fuel accumulations, higher fuel moisture levels, slower curing rates, and lower rates of spread. Conversely, southern and western slopes receive more direct sunlight, resulting in higher temperatures, lower soil and fuel moisture content, and lighter fuels. These conditions contribute to fires that exhibit the highest rates of spread. Additionally, these slopes are often on the windward side of mountains, making them "available to burn" for longer periods throughout the year. The rate of fire spread is also influenced by slope, as fuels upslope from the flaming front undergo preheating, facilitating combustion as the fire approaches. This preheating process intensifies with increasing slope, leading to higher rates of spread and extended flame lengths. Consequently, steep slopes with a south-southwest aspect tend to promote intense fire behavior due to dry fuels and the likelihood of prevailing westerly winds.

Fuels

In the context of wildfires, fuels refer to any organic material, whether living or dead, found within the fire environment. Examples of fuel types include grass, brush, branches, logs, logging slash, forest-floor litter, conifer needles, and buildings. The physical properties and characteristics of these fuels dictate how fires behave and spread. Factors such as fuel loading, size and shape, moisture content, continuity, and arrangement significantly influence fire behavior. Generally, smaller and finer fuels facilitate a faster potential rate of fire spread. Small fuels, including grass, needle litter, and other fuels less than a quarter inch in diameter, are primarily responsible for fire propagation. Fine fuels, characterized by high surface-to-volume ratios, are considered the main carriers of surface fires. Conversely, larger fuels tend to decrease the rate of spread due to a lower surface-to-volume ratio, resulting in slower-burning fires that release greater energy and burn with higher intensity, making them more challenging to control. Fuels are classified by their diameter, which has important implications for fuel moisture retention. Smaller diameter fuels experience quicker changes in moisture content, whereas larger diameter fuels take longer to change. In terms of fire potential on the landscape and fire suppression efforts, the time required for a fuel type to become volatile is critical. Therefore, instead of classifying fuels by size alone, they are categorized as one-hour, ten-hour, 100-hour, or 1000-hour fuels. This classification method describes the time needed for a particular fuel’s status to transition from non-combustible to combustible due to altered moisture levels in the surrounding environment.

Climate Change and Future Wildfire Outlook

(For additional information see Appendix – 4)

Climate change is already influencing wildfire patterns in Idaho, and these impacts are projected to grow more severe over the coming decades. For the Nez Perce Reservation and the surrounding Clearwater Plateau and Salmon River region, rising temperatures, reduced snowpack, and prolonged drought conditions are creating a longer, more intense fire season and contributing to more destructive wildfires.

These trends threaten tribal infrastructure, natural resources, cultural sites, and the health and safety of tribal members, particularly those living in or near the wildland-urban interface (WUI).

Observed and Projected Climate Trends Affecting Fire Risk

1. **Rising Temperatures**

    - Average annual temperatures in Idaho have increased by approximately 2°F since the early 20th century and are projected to rise an additional 3–5°F by 2050, depending on global emission levels. **(University of Idaho Climate Center, 2021; EPA Climate Indicators, 2023)**

    - Warmer temperatures accelerate snowmelt and dry vegetation earlier in the year.

    - Increased evapotranspiration leads to drier soil and fuel, creating ideal wildfire conditions.

    - According to Idaho's Climate Data's website, the projected "Fire Weather Index" the chance of increase wildland fires will continue to increase for the rest of the 21st Century. In figure ??, that the Nez Perce Reservation and its region should expect to see a modest increase in average temperatures throughout the rest of this century.

    - Figures 7 and 8 show that the Nez Perce Reservation *region* is expected to have an increase in wildland fires throughout the rest of the twenty first century. For this region, a score of over "25" represents a high level of danger. These figures show that this region will increase modestly by mid-century to 20.7 and then will see a much greater increase to 25.4 by end-of-century. **(Argonne National Laboratory. 2023. Blythe Johnston Climate Risk and Resilience Portal. Accessed: [July 1, 2023].** https://climrr.anl.gov https://storymaps.arcgis.com/stories/a10d443bf21448b982817072633d25ed **)**

Historical | RCP 8.5 Mid-Century

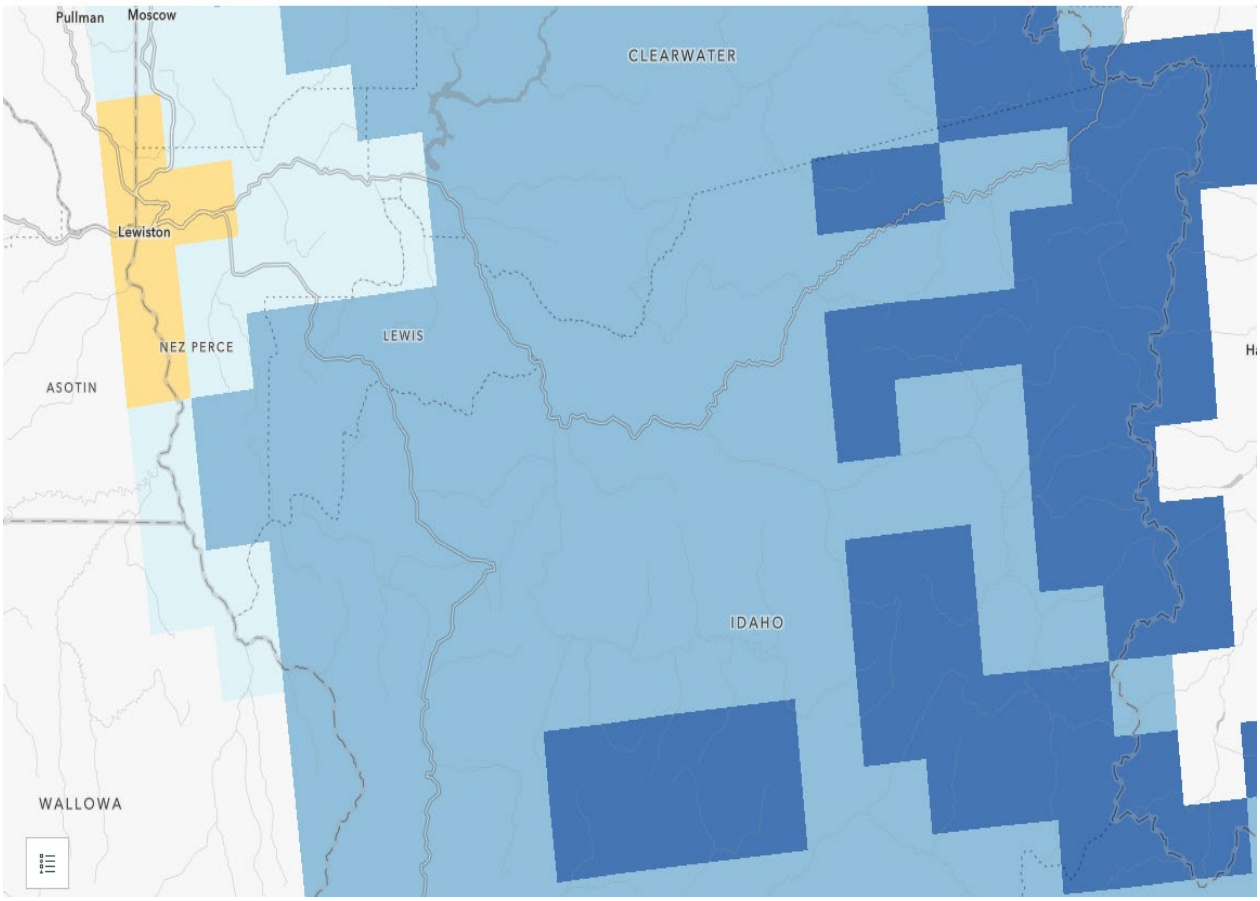
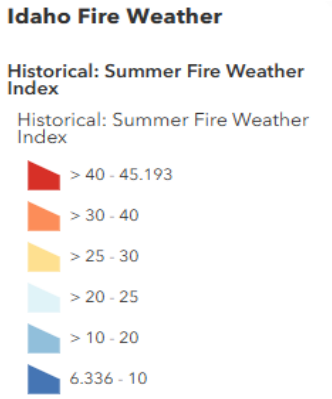


Figure 7: Source: (Argonne National Laboratory. 2023. Blythe Johnston Climate Risk and Resilience Portal. Accessed: [July 1, 2023]. https://climrr.anl.gov https://storymaps.arcgis.com/stories/a10d443bf21448b982817072633d25ed **)**



Historical | RCP 8.5 End-Century

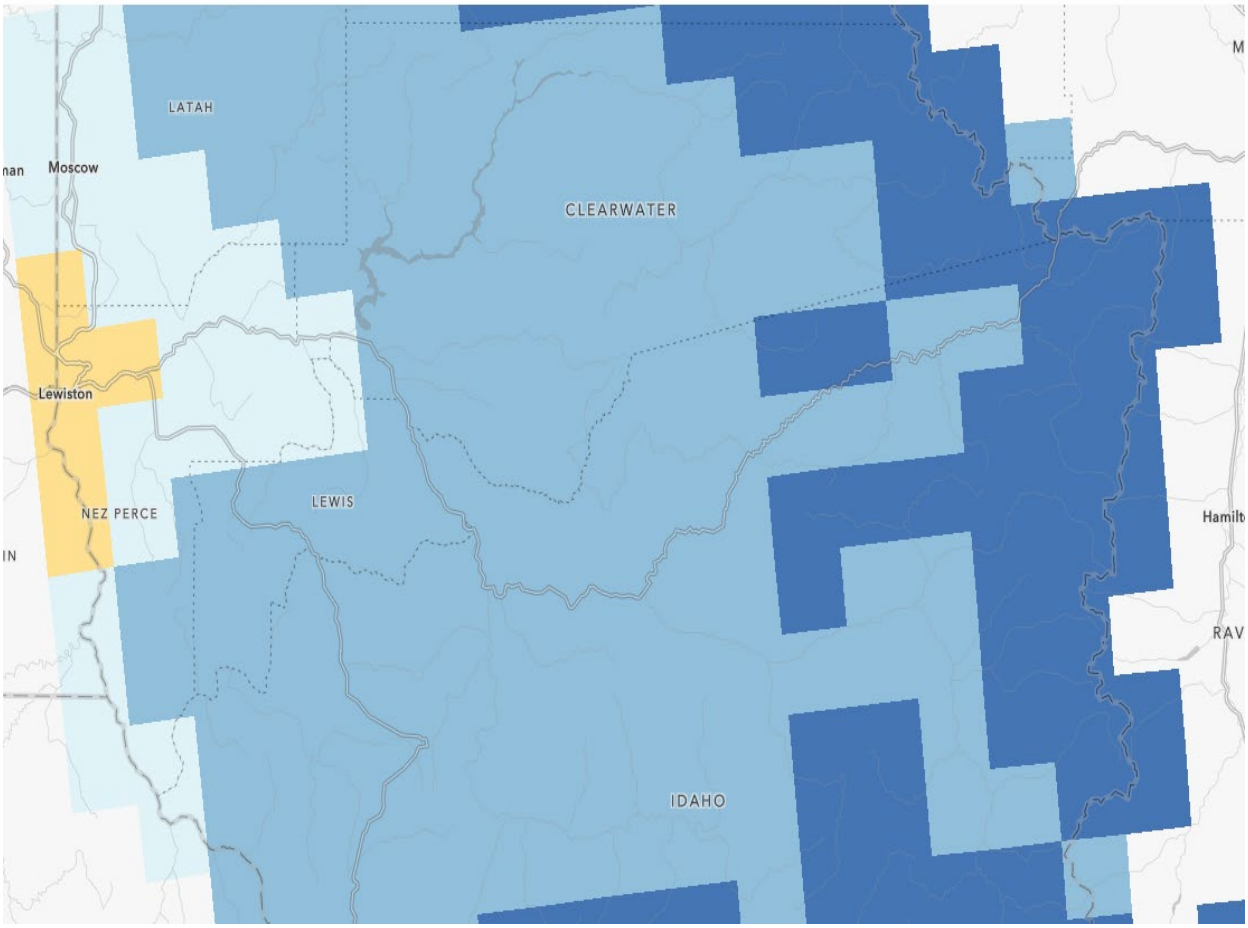
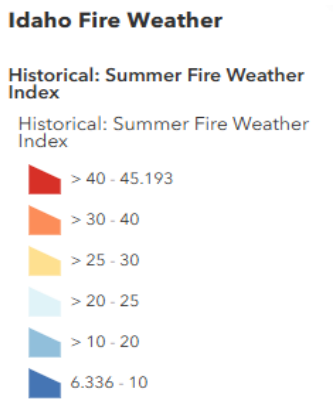


Figure 8: Source: (Argonne National Laboratory. 2023. Blythe Johnston Climate Risk and Resilience Portal. Accessed: [July 1, 2023]. https://climrr.anl.gov https://storymaps.arcgis.com/stories/a10d443bf21448b982817072633d25ed)



2. **Decreased Snowpack and Earlier Melt**

   Historically, the Nez Perce region relied on mountain snowpack to gradually release water into rivers and forests throughout the summer. Climate change has disrupted this cycle:

   - Snowpack in the Clearwater and Salmon River basins has declined significantly since the 1950s.

   - Earlier spring snowmelt shortens the wet season and extends the dry fire season by several weeks.

   This results in more days per year with high fire potential, particularly in July through September. **(University of Idaho Climate Center. *Idaho Climate Summary Report:* Idaho Climate-Economy Impacts Assessment, 2021)**

3. **Longer Fire Seasons**

   The average fire season in the Inland Northwest has increased by 70+ days over the past 40 years. In Idaho, the typical wildfire season now begins in late spring and can extend into late fall, especially in drought years.

   - This trend has been especially evident in years like 2021 and 2023, when fires continued to ignite well into October.

     - Longer fire seasons strain firefighting resources and increase the window for human-caused ignitions.

4. **Increased Frequency of Extreme Fire Weather**

   Climate projections show a greater number of **"Red Flag" weather days**, marked by hot, dry, and windy conditions. These increase the likelihood of fast-moving, high-intensity wildfires that can escape initial attack efforts.

Implications for the Nez Perce Reservation

The effects of climate-driven wildfire risk are particularly concerning tribal communities, which may be more vulnerable due to limited access to fire protection services, traditional land uses, and reliance on natural resources. Impacts include:

- **Damage to Cultural Sites and Trust Lands**
  Fires threaten sacred places, historic trails, and traditional plant gathering areas important to the Nez Perce way of life.

- **Increased Wildland-Urban Interface Risk**
  Many tribal homes, facilities, and infrastructure are located in or near forested areas at

elevated fire risk.

- **Ecological Disruption**
  More frequent and severe fires can shift forest species composition, reduce wildlife habitat, and exacerbate erosion and post-fire flooding.

- **Air Quality and Public Health**
  Wildfire smoke contributes to respiratory issues and poses a health risk to elders, children, and those with chronic illnesses—especially during repeated or prolonged fire seasons.

Wildland Fire – History and Mitigation Context

Overview

Wildland fire is a natural and recurring hazard in North and North Central Idaho, including within the Nez Perce Tribe's jurisdiction. The region's steep topography, dense coniferous forests, and seasonal climate patterns contribute to its fire-prone nature. Historically, fire has played a critical role in shaping the landscape and maintaining ecological balance. Today, the risk posed by wildfires is increasing due to a combination of climate variability, fuel accumulation, and expanded development in the wildland-urban interface (WUI).

Traditional Use of Fire and Early Fire History

For millennia, the Nez Perce people have used fire as a cultural and land management tool. Controlled burns were intentionally set to enhance hunting grounds, encourage the growth of useful plant species, maintain trail corridors, and reduce hazardous fuels. These practices created a mosaic of vegetative conditions that helped limit the spread and intensity of large wildfires. Fire was deeply integrated into traditional ecological knowledge and stewardship practices passed down across generations.

> The Nez Perce Tribe recognizes cultural fire as an integral part of land stewardship and ecological resilience. **(Nez Perce Tribe Department of Natural Resources, NPT DNR, Cultural Fire Use Program Report, 2022)**

Fire Suppression and the 1910 Fire Legacy

With European American settlement in the 19th century, natural fire regimes were disrupted by widespread logging, road-building, and aggressive fire suppression policies. These changes set the stage for one of the most catastrophic fire events in U.S. history:

The Great Fire of 1910

> Known as the "Big Blowup," this wildfire burned over 3 million acres in northeast Washington, north Idaho, and western Montana. The fire destroyed multiple towns and claimed more than 80 lives, including many firefighters. Its aftermath drove the U.S. Forest Service to adopt a policy of complete suppression, most famously the “10 a.m. Policy,” which aimed to contain all wildfires by 10 a.m. the day after discovery. **(USDA Forest Service, 2010 Fire Centennial Report)**

This suppression philosophy dominated much of the 20th century, reducing the occurrence of low-intensity fires and allowing fuels to accumulate in forested landscapes. The unintended consequence has been an increase in severe, high-intensity fires that are more difficult to control and more damaging to ecosystems and human infrastructure.

Recent Trends in Wildfire Management

In recent decades, wildfire frequency, size, and severity have increased in the Nez Perce region due to multiple factors, including climate change (hotter, drier summers and earlier snowmelt), prolonged drought, legacy fuels, and WUI expansion.

These events illustrate the growing complexity of wildfire management in the region, especially as fires increasingly intersect with populated and culturally sensitive areas.

Current Fire Mitigation and Prevention Efforts

Fire prevention and mitigation strategies in the Nez Perce region are multifaceted and involve collaboration across tribal, federal, state, and local partners.

Nez Perce Tribe Fire Management

- **Prescribed Burning and Cultural Fire** – Conducted to restore traditional fire regimes and reduce fuel loading near communities and resource areas.
- **Fuels Treatment** – Mechanical thinning, brush removal, and firebreak creation in high-risk zones.
- **Community Outreach** – Fire safety education, defensible space workshops, and collaboration with homeowners in WUI areas.
- **Emergency Response Coordination** – Integrated response teams and incident command with federal partners during large fires.

“We are committed to using traditional knowledge and modern science to protect our lands and people from catastrophic fire.” (Nez Perce Tribe Fire Management Program **(NPT Wildfire Strategy Brief, 2022)**

Federal, State and Regional Partners

- **US Forest Service (USFS)** and **Bureau of Land Management (BLM)** carry out prescribed fires and large-scale fuel reduction on adjacent federal lands.

- **Idaho Department of Lands (IDL)** supports local fire districts, hazard mitigation planning, and resource coordination.

- **Firewise USA®** and similar programs have been implemented in high-risk communities to improve home ignition zone management and wildfire awareness. **(NFPA Firewise USA Community List, 2024)**

- The **Clearwater Basin Collaborative** and **Nez Perce-Clearwater National Forests Collaborative** involve the Tribe, conservation groups, industry, and government in planning and implementing landscape-scale fire mitigation and forest restoration projects. **(CBC Annual Report, 2023)**

Challenges and Future Considerations

Despite significant progress, key challenges remain:

- **WUI Growth** – Increasing development in forested areas raises the stakes for fire response and mitigation.

- **Climate Variability** – Extended fire seasons and more extreme weather are straining existing resources.

- **Restoration of Cultural Fire** – Expanding cultural burning within federal fire policy frameworks remains a priority.

- **Sustained Funding** – Long-term investment in fuels management and community preparedness is essential.

Ongoing collaboration and incorporation of Indigenous knowledge will be vital to achieving long-term fire resilience.

Wildfire Events for the past 5 Years

2019 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2019-03-14	0.10	Human	46.4602	-116.2223
2	2019-03-14	0.10	Human	46.4618	-116.2162
3	2019-05-10	1.00	Human	46.2079	-116.5088
4	2019-06-05	0.10	Unknown	46.5038	-116.5538
5	2019-07-04	0.10	Human	46.2010	-116.0217
6	2019-07-14	2.70	Natural	46.4236	-116.3224
7	2019-07-15	1.00	Natural	46.4801	-116.3637
8	2019-07-17	0.25	Human	46.5057	-116.7557
9	2019-07-20	1.50	Human	46.4301	-116.8179
10	2019-07-25	0.00	Unknown	46.3679	-116.6465
11	2019-07-28	6.00	Human	46.4203	-116.1986
12	2019-07-31	0.60	Human	46.5034	-116.4349
13	2019-08-01	0.10	Human	46.4136	-116.8084
14	2019-08-03	96.00	Human	46.4261	-116.7608
15	2019-08-08	0.50	Human	46.4309	-116.8141
16	2019-08-11	0.10	Natural	46.1940	-115.9642
17	2019-08-11	0.10	Natural	46.1885	-116.0473
18	2019-08-11	0.10	Natural	46.1141	-116.1681
19	2019-08-11	0.10	Human	46.1567	-115.9176
20	2019-08-24	4.10	Human	46.5099	-116.3121
21	2019-08-31	0.10	Human	46.4286	-116.8021
22	2019-09-16	134.60	Human	46.5238	-116.5837
23	2019-09-17	0.10	Human	46.2263	-116.6202
24	2019-09-20	2.00	Human	46.4766	-116.3960
25	2019-10-25	0.20	Human	0.0000	

Table 2: Idaho Department of Lands – 2025

2020 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2020-03-12	2.00	Human	46.1428	-116.0530
2	2020-03-12	8.00	Human	46.4489	-116.1606
3	2020-03-19	1.20	Human	46.2028	-116.0077
4	2020-04-16	0.10	Human	46.4424	-116.2144
5	2020-04-18	1.00	Human	46.1898	-116.0241
6	2020-04-26	0.75	Human	46.5200	-116.5900
7	2020-05-09	2.00	Human	46.1247	-115.9077
8	2020-05-11	0.50	Human	46.4994	-116.4219
9	2020-05-31	0.10	Natural	46.3913	-116.1780
10	2020-07-06	0.10	Human	46.5047	-116.2971
11	2020-07-07	0.10	Natural	46.2138	-116.0165
12	2020-07-15	0.10	Human	46.3630	-116.7177
13	2020-07-25	3.80	Human	46.4539	-116.7789
14	2020-07-25	0.10	Human	46.4839	-116.2030
15	2020-08-11	0.10	Human	46.4093	-116.8018
16	2020-08-11	1.31	Human	46.0370	-116.1398
17	2020-08-12	0.78	Human	46.4938	-116.4626
18	2020-08-16	0.10	Human	46.3621	-116.8050
19	2020-08-16	1.60	Human	46.4522	-116.8021
20	2020-08-17	0.64	Human	46.4619	-116.7402
21	2020-08-18	1.50	Human	46.3768	-116.8229
22	2020-08-19	0.20	Natural	46.3202	-116.6470
23	2020-08-19	18.00	Natural	46.2453	-116.6781
24	2020-08-26	0.10	Human	46.4035	-116.8068
25	2020-08-27	0.10	Human	46.4322	-116.8065
26	2020-08-30	534.38	Human	46.5150	-116.2958
27	2020-09-01	5.00	Human	46.1398	-116.5039
28	2020-09-07	1,551.31	Human	46.5088	-116.3869
29	2020-09-07	2,802.33	Human	46.4213	-116.2091
30	2020-09-08	0.25	Human	46.1365	-115.9819
31	2020-10-09	1.25	Human	46.2388	-116.6367
32	2020-09-09	0.10	Human	46.1711	-116.3879
33	2020-09-16	0.10	Human	46.3640	-116.3897
34	2020-09-16	7.00	Human	46.4665	-116.2098
35	2020-09-24	40.00	Human	46.4557	-116.8426

Table 3: Idaho Department of Lands – 2025

2021 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2021-04-04	0.44	Human	46.3927	-116.1590
2	2021-04-17	0.20	Human	46.2089	-116.6269
3	2021-05-13	2.40	Human	46.3286	-116.2872
4	2021-05-26	0.01	Human	46.5011	-116.3173
5	2021-06-04	0.10	Natural	46.3064	-116.6684
6	2021-06-05	6.23	Natural	46.2780	-116.7054
7	2021-06-13	0.10	Natural	46.2429	-116.0122
8	2021-06-15	2.00	Human	46.4706	-116.2422
9	2021-06-24	0.10	Human	46.2417	-116.0276
10	2021-06-28	98.00	Human	46.3433	-116.8003
11	2021-06-29	4.16	Human	46.2950	-116.6190
12	2021-06-29	1.11	Human	46.0706	-115.9810
13	2021-06-30	0.10	Human	46.3909	-116.8034
14	2021-07-01	0.15	Natural	46.3115	-116.6645
15	2021-07-01	2.50	Natural	46.3273	-116.6668
16	2021-07-01	27.06	Natural	46.3897	-116.5868
17	2021-07-02	0.01	Natural	46.1599	-115.8749
18	2021-07-02	0.10	Human	46.4833	-116.3104
19	2021-07-02	1,338.06	Natural	46.1447	-115.9073
20	2021-07-05	1.00	Human	46.1867	-115.9443
21	2021-07-06	0.10	Human	46.3702	-116.6471
22	2021-07-05	0.10	Human	46.4527	-116.8018
23	2021-07-07	47.00	Natural	46.2231	-116.0140
24	2021-07-07	0.10	Natural	46.4978	-116.2978
25	2021-07-07	0.10	Natural	46.1653	-116.0343
26	2021-07-07	0.59	Natural	46.4640	-116.7332
27	2021-07-07	0.10	Unknown	46.2630	-116.6299
28	2021-07-12	20.72	Human	46.4729	-116.2045
29	2021-07-13	1.00	Human	46.4899	-116.7483
30	2021-07-15	8.59	Human	46.3827	-116.0397
31	2021-07-17	0.10	Human	46.3503	-116.8035
32	2021-07-07	0.10	Natural	46.1945	-116.1010
33	2021-07-22	0.50	Human	46.4841	-116.2379
34	2021-07-23	0.10	Human	46.5348	-116.7546
35	2021-07-25	19.00	Human	46.1161	-115.9746
36	2021-07-31	0.10	Human	46.3961	-116.8016
37	2021-08-01	0.10	Natural	46.5253	-116.3055
38	2021-08-01	0.10	Natural	46.4944	-116.3231
39	2021-08-05	1.00	Natural	46.2158	-116.5997
40	2021-08-05	0.50	Natural	46.1964	-116.5607
41	2021-08-05	0.10	Natural	46.2612	-116.0091
42	2021-08-07	0.10	Human	46.1633	-115.9874
43	2021-08-10	0.10	Human	46.4089	-116.8078
44	2021-08-11	11,177.19	Human	46.5164	-116.5905
45	2021-08-15	0.20	Human	46.3060	-116.5906
46	2021-08-21	0.10	Human	46.5454	-116.4379
47	2021-08-24	0.10	Human	46.4705	-116.2333

48	2021-08-29	0.10	Human	46.4992	-116.3101
49	2021-08-03	36.68	Human	46.1218	-116.5036
Number	**Start Date**	**Acres**	**Fire Cause**	**Latitude**	**Longitude**
50	2021-08-04	0.10	Natural	46.6188	-115.9928
51	2021-08-30	0.10	Human	46.4050	-116.8038
52	2021-08-30	0.10	Human	46.3246	-116.5441
53	2021-09-03	0.10	Human	46.4469	-116.8163
54	2021-09-05	0.10	Human	46.1225	-115.9781
55	2021-09-26	0.10	Unknown	46.3706	-116.6601
56	2021-09-29	7.00	Human	46.0917	-115.9753
57	2021-10-01	5.00	Human	46.3224	-116.2218
58	2021-10-03	1.00	Human	46.3532	-116.8028
59	2021-10-07	0.25	Human	46.3724	-116.7917
60	2021-10-08	1.75	Human	46.3320	-116.8213
61	2021-10-15	0.10	Human	46.2045	-116.0178
62	2021-10-16	0.10	Human	46.2184	-116.0443
63	2021-10-18	0.10	Unknown	46.4637	-116.1981

Table 4: Idaho Department of Lands – 2025

2022 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2022-05-03	0.10	Human	46.4987	-116.3253
2	2022-05-13	1.00	Human	46.5024	-116.4821
3	2022-05-27	0.10	Natural	46.1451	-115.9414
4	2022-07-01	0.10	Human	46.4101	-116.8279
5	2022-07-08	0.10	Human	46.4469	-116.8163
6	2022-07-15	0.25	Human	46.4782	-116.4942
7	2022-07-17	1,700.00	Human	46.4676	-116.8930
8	2022-07-21	0.10	Human	46.2965	-116.1260
9	2022-07-24	45.10	Human	46.2337	-116.0412
10	2022-07-26	4.60	Human	46.2820	-116.2057
11	2022-08-10	0.10	Human	46.3656	-116.7948
12	2022-08-10	0.10	Human	45.6302	-115.9508
13	2022-08-10	2.00	Human	46.4087	-116.8020
14	2022-08-12	0.10	Natural	46.3478	-116.1315
15	2022-08-12	5.00	Human	46.4050	-116.8039
16	2022-08-14	0.10	Human	46.5024	-116.4384
17	2022-08-18	0.10	Human	46.3983	-116.8541
18	2022-08-25	12.40	Natural	46.4587	-116.4343
19	2022-08-25	209.70	Human	46.2544	-116.2180
20	2022-09-01	0.10	Human	46.4440	-116.2592
21	2022-09-04	500.00	Human	46.4563	-116.8035
22	2022-09-13	20.00	Human	46.4348	-116.7030
23	2022-09-18	0.10	Human	46.4312	-116.8107
24	2022-09-20	0.10	Human	46.0394	-116.0562
25	2022-09-22	1.40	Human	46.0299	-116.0983
26	2022-09-28	65.00	Human	46.4224	-116.6300

Table 5: Idaho Department of Lands – 2025

2023 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2023-02-04	3.50	Human	46.4789	-116.4166
2	2023-02-12	0.10	Human	46.1781	-116.1003
3	2023-04-06	24.00	Human	46.4841	-116.2526
4	2023-04-28	0.10	Human	46.1450	-115.9768
5	2023-05-14	2.02	Undetermined	46.5074	-116.3264
6	2023-05-15	18.00	Undetermined	46.2751	-116.8115
7	2023-05-16	0.10	Natural	46.5073	-116.3633
8	2023-05-25	0.10	Human	46.5097	-116.3327
9	2023-05-31	0.75	Human	46.5022	-116.3230
10	2023-06-06	0.10	Human	46.4505	-116.8534
11	2023-06-07	0.10	Natural	46.4433	-116.5570
12	2023-06-08	0.10	Human	46.7236	-115.5866
13	2023-06-12	0.10	Natural	46.4448	-116.5324
14	2023-06-21	0.25	Human	46.5000	-116.7169
15	2023-06-26	0.10	Undetermined	46.3921	-116.7930
16	2023-07-02	0.10	Human	46.4942	-116.3128
17	2023-07-04	0.10	Undetermined	46.4271	-116.8041
18	2023-07-04	0.10	Undetermined	46.1498	-115.9720
19	2023-07-04	0.10	Undetermined	46.3923	-116.8034
20	2023-07-05	2.00	Human	46.4469	-116.8160
21	2023-07-06	1.00	Human	46.4741	-116.6774
22	2023-07-07	0.10	Human	46.2400	-116.5800
23	2023-07-07	0.50	Human	46.3980	-116.8014
24	2023-07-10	0.50	Natural	46.4050	-116.8040
25	2023-07-11	0.25	Undetermined	46.3871	-116.8005
26	2023-07-14	1.00	Undetermined	46.1479	-116.6576
27	2023-07-15	0.54	Human	46.1215	-116.4106
28	2023-07-19	0.50	Human	46.4532	-116.7517
29	2023-07-24	0.25	Human	46.4418	-116.8405
30	2023-07-26	0.10	Human	46.2607	-116.0333
31	2023-07-27	100.00	Undetermined	46.3902	-116.1576
32	2023-07-27	7.00	Human	46.3191	-116.7688
33	2023-07-28	2.00	Human	46.4230	-116.7882
34	2023-07-28	1.25	Human	46.2897	-116.3450
35	2023-07-31	0.10	Human	46.3111	-116.0670
36	2023-08-06	4.00	Undetermined	46.2044	-116.0679
37	2023-08-06	4.00	Undetermined	46.5228	-116.6588
38	2023-08-16	0.10	Human	46.2442	-116.4391
39	2023-08-19	4.80	Human	46.5660	-116.4355
40	2023-08-19	149.00	Human	46.5174	-116.3333
41	2023-08-29	53.00	Undetermined	46.4917	-116.2590
42	2023-08-30	0.10	Natural	46.3950	-116.1836
43	2023-09-12	0.25	Human	46.4130	-116.8084
44	2023-09-18	1.50	Human	46.4087	-116.8052
45	2023-09-18	0.10	Natural	46.1935	-116.5355
46	2023-10-31	0.30	Human	46.4997	-116.4294

Table 6: Idaho Department of Lands – 2025

2024 Wildfires – Nez Perce Reservation Region

Number	Start Date	Acres	Fire Cause	Latitude	Longitude
1	2024-03-17	5.00	Human	46.4793	-116.2551
2	2024-05-03	0.10	Human	46.4716	-116.2478
3	2024-05-15	1.00	Human	46.2421	-115.9883
4	2024-05-31	0.20	Human	46.5263	-116.6464
5	2024-06-12	0.25	Human	46.3704	-116.7221
6	2024-06-16	0.25	Human	46.3525	-116.8128
7	2024-06-19	4.00	Human	46.4566	-116.1990
8	2024-06-24	2.50	Human	46.4953	-116.4374
9	2024-06-27	0.25	Human	46.4214	-116.8040
10	2024-07-02	0.10	Human	46.1651	-116.4939
11	2024-07-05	0.10	Human	46.3925	-116.8036
12	2024-07-05	1.00	Human	46.4692	-116.4143
13	2024-07-05	0.10	Human	46.3968	-116.7993
14	2024-07-07	0.10	Human	46.3591	-116.7603
15	2024-07-12	14.00	Human	46.4433	-116.5560
16	2024-07-13	0.25	Human	46.4050	-116.8040
17	2024-07-20	0.25	Human	46.4435	-116.8107
18	2024-07-25	28,820.00	Natural	46.5251	-116.7340
19	2024-07-25	2.00	Natural	45.6050	-116.4630
20	2024-07-25	2,000.00	Undetermined	46.4922	-116.7408
21	2024-07-31	0.10	Human	46.2556	-116.1173
22	2024-08-05	0.10	Natural	46.1737	-116.0623
23	2024-08-05	14.00	Natural	46.3293	-116.3892
24	2024-08-05	0.10	Natural	46.3298	-116.3689
25	2024-08-09	0.25	Undetermined	46.1442	-114.8092
26	2024-08-11	0.50	Human	46.4203	-116.8067
27	2024-08-16	0.10	Natural	46.2437	-116.7926
28	2024-08-18	15.50	Human	46.3336	-116.6006
29	2024-08-19	1.70	Human	46.3427	-116.6331
30	2024-08-22	17.00	Human	46.1288	-116.4002
31	2024-08-29	2.00	Human	46.1286	-116.3575
32	2024-09-09	5.00	Natural	46.5554	-116.4347
33	2024-09-25	0.10	Human	46.5507	-116.4334
34	2024-09-25	110.50	Human	46.3178	-116.4005
35	2024-09-26	1.80	Undetermined	46.4885	-116.2507
36	2024-10-04	0.10	Undetermined	46.2180	-116.0029
37	2024-10-06	0.50	Human	46.3588	-116.6840
38	2024-10-11	0.10	Human	46.4907	-116.2270

Table 7: Idaho Department of Lands – 2025

Fires over 10 Acres 2019-2024

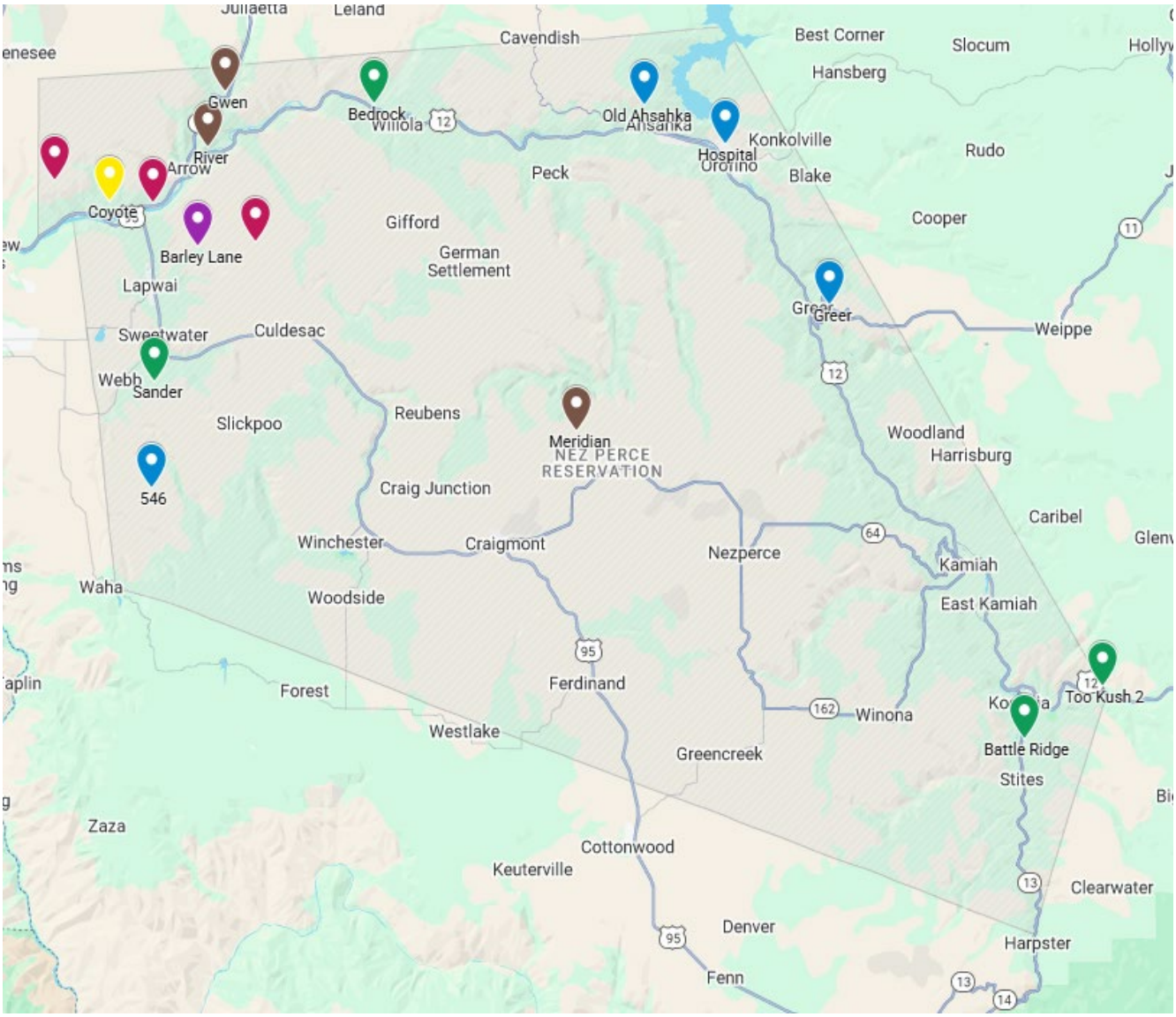


Figure 9: Idaho Office of Lands

2019 2020 2021 2022 2023 2024

Probability of Future Occurrence

Lightning ignitions are common on the Reservation and typically occur along ridgetops, but human causes account for over 70% of all fires that occur on the Reservation. These fires are often quickly controlled by local resources and rarely grow beyond an acre in size.

Larger fires, 1000 + acres, requiring additional resources beyond the initial attack, are less common but can occur annually. Based on history, this type of fire is likely to occur on and/or near the Reservation approximately every 2 years.

Impacts of Wildfire Events

Unlike other natural disasters, the effects of wildfire, with the exception of smoke and fire brands, are localized and can be contained with an effective management strategy. However, even if a fire is successfully contained, communities in proximity to the fire may still experience disruptions as municipal resources are diverted to suppression efforts. Should a wildfire grow beyond the capabilities of local fire agencies, other in-state resources as well and federal resources may be requested for additional support. Residents with property in the path of wildland fire will likely suffer the greatest impacts through loss of structures, personal property, and/or the value of any timber or crops on their land.

Public Health Effects of Wildfire Smoke on Tribal Members

(For additional information see Appendix – 4)

Increased wildfire activity within a region will significantly raise the health risk for individuals due to prolonged smoke exposure, especially during late summer and early fall. Smoke from these fires contains harmful air pollutants, including fine particulate matter, carbon monoxide, volatile organic compounds, and other toxic substances that pose serious health risks. **(Environmental Protection Agency. *Climate Change Indicators in the United States: Wildfires and Air Quality*. 2023.)**

For the Nez Perce Tribe, this hazard is particularly concerning due to its impact on elderly tribal members, those with pre-existing health conditions, and communities living in rural areas with limited access to healthcare or air quality resources.

Vulnerable Populations: Tribal Elders at Greatest Risk

Elders within the Nez Perce Tribe are at higher risk due to:

- Higher rates of underlying health conditions.
- Limited mobility and difficulty accessing clean air spaces (e.g., community centers with filtered HVAC systems).
- Reluctance to evacuate due to cultural ties to land or historical trauma associated with displacement.
- Reliance on tribal support systems, which may be disrupted during wildland fire emergencies.

> During smoke events, our elders are the first to suffer and the last to recover. It's not just the air—they're losing access to ceremony, gathering spaces, and connection. **(Nez Perce Tribal Health Official (2022 community health survey)**

Value of Resources at Risk

It is difficult to estimate the potential losses across the Reservation, typically structures located in forested areas without an adequate defensible space or fire-resistant landscaping have the highest risk of loss. Nevertheless, homes and other structures located in the grasslands or agricultural regions are not without wildfire risk. Grass fires are often the most dangerous due to high rates of spread. Fires in this fuel type are considered somewhat easier to suppress given the right resources, but they can also be the most destructive. Homes along the perimeter of the community would have the highest risk due to their adjacency to wildland fuels. Over the last five years the estimated costs from the 235 wildland fires that have occurred in the Nez Perce Reservation Region the estimated cost is over $110,000,000, including damages to structures, property, crops, and containment costs. Over the same period of time, 149 residential homes received fire damage. **(NOAA, Storm Event Data Base)**

Table 8 summarizes the type and number of structures located in high-risk wildfire areas. Most of the structures at risk, approximately 5,400 structures, are classified as homes/residential while almost 500 commercial and commercial-type structures are at risk. If even half of these structures are damaged in a potential wildland fire the damage costs could easily reach hundreds of millions of dollars in damage.

Structure Type	Count
Homes/Residential	5,345
Commercial and Commercial type	493
Other School Buildings	25
Schools	9
Historical Structures	2
Health Clinic	1
Prison	1
Outbuildings	Hundreds
Total	**5,876**

(Table 8: Structures located in high-risk wildfire areas on the Nez Perce Reservation.

***Value includes countable structures only (outbuildings were not included).**

Flood Hazard Profile

(For additional information see Appendix – 4)

Hazard Description and History

Floods can be divided into two major categories on the Reservation: river and flash flood. River flooding is associated with a river's watershed, which is the natural drainage basin that conveys water runoff from rain and snowmelt. River flooding occurs when the flow of runoff is greater than the carrying capacities of the natural drainage systems. Rainwater and snowmelt runoff that is not absorbed by soil or vegetation seeks surface drainage paths following natural topography lines. These lines merge to form a hierarchical system of rills, creeks, streams, and rivers. Generally, floods can be slow or fast rising depending on the size of the river or stream. Flash floods are much more dangerous and flow much faster than river floods. Flash floods are caused by the introduction of a large amount of water into a limited geographic extent (e.g., extreme precipitation events in watersheds less than 50 square miles). They also tend to peak quickly (e.g., eight hours or less) and more commonly occur in hilly or otherwise confined terrain. Flash floods occur in both urban and rural settings, principally along smaller rivers and drainage ways that do not typically carry large amounts of water. This type of flood poses more significant safety risks than river floods because of the rapid onset, the high-water velocity, the potential for channel scour, and the debris load. (Statewide Regional Evacuation Study Program. Central Florida Region Technical Data Report. Volume 1-7, Chapter II – Regional Hazards Analysis. Available online at http://www.cfrpc.org/EVACUATION%20MASTER%20DVD%20%20PDF%20VERSION/VOLUME%201/Chapter%202/CFRPC%20Chapter%20II%20-%20Hazards%20Analysis.pdf)

River Floods

The most reported flood magnitude measure is the "base floods." This is the magnitude of a flood having a one-percent chance of being equaled or exceeded in any given year. Although unlikely, "base floods" can occur in any year, even successive ones. This magnitude is also referred to as the "100-year Flood" or "Regulatory Flood". Floods are usually described in terms of their statistical frequency. A "100-year flood" or "100-year floodplain" describes an event or an area subject to a 1% probability of a certain size flood occurring in any given year. This concept does not mean such a flood will occur only once in one hundred years. Whether or not it occurs in a given year has no bearing on the fact that there is still a 1% chance of a similar occurrence in the following year. Since floodplains can be mapped, the boundary of the 100-year flood is commonly used in floodplain mitigation programs to identify areas where the risk of flooding is significant. Any other statistical frequency of a flood event may be chosen depending on the degree of risk that is selected for evaluation, e.g., 5-year, 20-year, 50-year, 500-year floodplain.

The areas adjacent to the channel that normally carries water are referred to as the floodplain or the "Special Flood Hazard Area," SFHA. In practical terms, the floodplain is an area that is

inundated by flood waters. In regulatory terms, the floodplain is the area that is under the control of floodplain regulations and programs (such as the National Flood Insurance Program which publishes the FIRM maps). The floodplain is often defined as: "land that has been or may be covered by floodwater, or is surrounded by floodwater and inaccessible, during the occurrence of the regulatory flood." *(*FEMA, NFIP Washington D.C. www.fema.gov)

The nature and extent of a flood event is the result of the hydrologic response of the landscape. Factors that affect this hydrologic response include soil texture and permeability, land cover and vegetation, land use and land management practices. Precipitation and snow melt, known collectively as runoff, follow one of three paths, or a combination of these paths, from the point of origin to a stream or depression: overland flow, shallow subsurface flow, or deep subsurface ("ground water") flow. Each of these paths delivers water in differing quantities and rates. The character of the landscape will influence the relative allocation of the runoff and will, accordingly, affect the hydrologic response. Unlike precipitation and ice formation, steps can be taken to mitigate flooding through manipulation or maintenance of the floodplain. Insufficient natural water storage capacity and changes to the landscape can be offset through water storage and conveyance systems that run the gamut from highly engineered structures to constructed wetlands. Careful planning of land use can build on the natural strengths of the hydrologic response. Re-vegetation of burned slopes diverts overland flow (fast and flood producing) to subsurface flow (slower and flood moderation). The failure to recognize or acknowledge the extent of the natural hydrologic forces in an area has led to development and occupation of areas that can clearly be expected to flood on a regular basis. Despite this, communities are often surprised when the stream leaves its channel to occupy its floodplain. A past reliance on structural means to control floodwaters and "reclaim" portions of the floodplain has also contributed to inappropriate development and continued flood-related damages. "*Winter weather conditions are the main driving force in determining where and when floods will occur. The type of precipitation that a winter storm produces is dependent on the vertical temperature profile of the atmosphere over a given area*." ("Snowstorms." Rampo College. Resource Section for Meteorology. http://mset.rst2.edu/portfolios/k/khanna_n/meteorology/snowstorms.htm.)

Unusually heavy snowpacks and/or unusual spring temperature regimes (e.g., rapid warming) may result in the generation of runoff volumes significantly greater than can be conveyed by the confines of the stream and river channels. Such floods are often the ones that lead to widespread damage and disasters. Floods caused by rapid spring snow melt tend to last for a period of several days to several weeks, longer than the floods caused by other meteorological events.

On small drainages, the most severe floods are usually a result of rainfall on frozen ground; however, moderate quantities of warm rainfall on a snowpack, especially for one or more days, can also result in rapid runoff and flooding in streams and small rivers. Although

meteorological conditions favorable for short-duration warm rainfall are common, conditions for long-duration warm rainfall are relatively rare. Occasionally, however, the polar front becomes situated along a line from Hawaii through Oregon, and warm, moist, unstable air moves into the region.

The major source of flood waters on the Reservation is normal spring snow melt. As spring melt is a "natural" condition; the stream channel is defined by the features established during the average spring high flow (bank-full width). Small flow peaks exceeding this level and the stream's occupation of the floodplain are common events. The magnitude of most floods on the Reservation depends on the combinations of intensity and duration of rainfall, pre-existing soil conditions, area of a basin, elevation of the rain or snow level, and the amount of snowpack. Man-made changes to a basin also can affect the size of floods. Although floods can happen at any time during the year, there are typical seasonal patterns for flooding based on a variety of natural processes that cause floods:

- Heavy rainfall on wet or frozen ground, before a snowpack has accumulated, typically causes Fall and early Winter floods.
- Rainfall combined with the melting of the low elevation snowpack typically causes Winter and early Spring floods.
- Late Spring floods result primarily from the melting of the snowpack.

Flash Flooding

There are three types of flash flooding:

- Extreme precipitation and runoff events
- Inadequate urban drainage systems that become overwhelmed by runoff
- Dam/Levee failures

Events that may lead to flash flooding include significant rainfall and/or snowmelt on frozen ground in the winter and early spring months, high-intensity thunderstorms (usually during the summer months), and rainfall onto burned areas where high heat has caused the soil to become hydrophobic or water repellent which dramatically increases runoff and flash flood potential.

Flash floods from thunderstorms do not occur as frequently as those from general rain and snowmelt conditions but are far more severe. The onset of these flash floods varies from slow to very quick and is dependent on the intensity and duration of the precipitation and the soil types, vegetation, topography, and slope of the basin. When intensive rainfall occurs immediately above developed areas, flooding may occur in a matter of minutes. Sandy soil and sparse vegetation, especially recently burned areas, are conducive to flash flooding. Mountainous areas are especially susceptible to the damaging effects of flash floods, as steep topography may stall thunderstorms in a limited area and may funnel runoff into narrow canyons, intensifying flow. A flash flood can, however, occur on any terrain when extreme amounts of precipitation accumulate more rapidly than infiltration on any terrain.

Floods that result from rainfall on frozen ground in the winter, or rainfall associated with a warm, regional frontal system that rapidly melts snow at low and intermediate altitudes (rain-on-snow) can be the most severe. Both situations quickly introduce large quantities of water into the stream channel system, easily overloading its capacity.

Occasionally, floating ice or debris can accumulate at a natural or man-made obstruction and restrict the flow of water**.** Ice and debris jams can result in two types of flooding:

- Water held back by the ice jam or debris dam can cause flooding upstream, inundating large areas and often depositing ice or other debris which remains after the waters have receded. This inundation may occur well outside of the normal floodplain.
- High velocity flooding can occur downstream when the jam breaks. These flood waters can have additional destructive potential due to the ice and debris load that they may carry. (Barnhill, Dave, et al. *"Flash Floods – How do they occur?"* Waterlines: Division of Water, Indiana Department of Natural Resources. Spring-Summer 1999. Indianapolis, Indiana.)

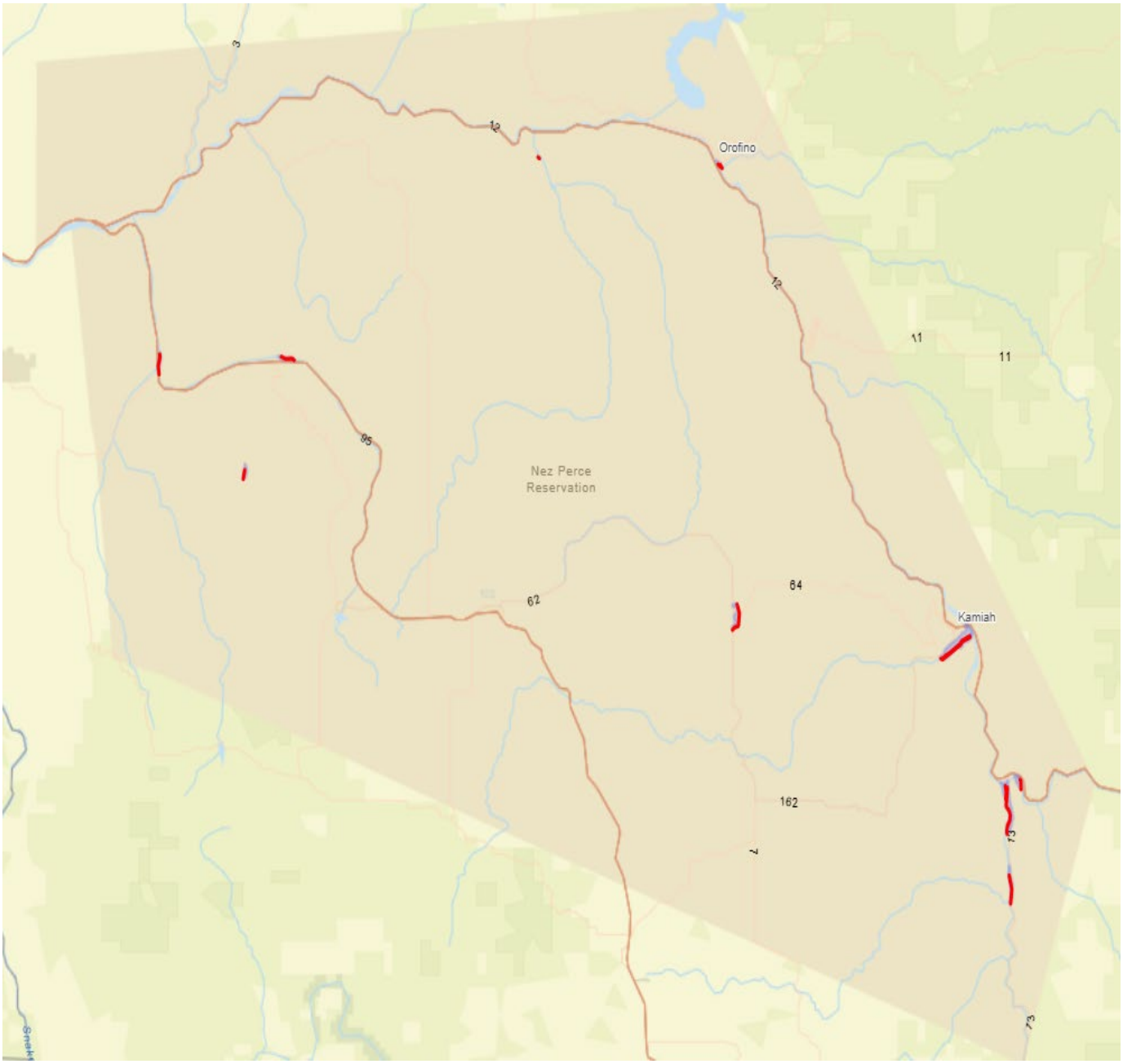
Flooding from ice or debris jams is a relatively common phenomenon in central Idaho and can be a significant contributor to flood-related damage. Small jams frequently occur in many of the streams throughout the Nez Perce Reservation, particularly at bridge abutments and culverts.

Dams and Levees

Dam and levee failures also pose a potential flood hazard. A dam failure is the structural collapse of a dam that releases the water stored in the reservoir behind the dam. A levee failure/breach is the structural failure or rupture of a levee, resulting in the uncontrolled release of water into the protected area behind the levee. A dam failure is usually the result of the age of the structure, inadequate spillway capacity, or structural damage caused by an earthquake or flood. A levee breach is usually caused by flood waters overtopping, erosion or seepage weakening the structure, structural defects or poor construction, and earthquakes or other natural disasters.

The sudden release of water has the potential to cause human casualties, economic loss, and environmental damage. This type of disaster is dangerous because it can occur rapidly, providing little warning and evacuation time for people living downstream. The flows resulting from dam and or levee failures generally are much larger than the capacity of downstream channels and can therefore lead to extensive flooding. Flood damage occurs because of the momentum of the flood caused by the sediment-laden water, flooding over the channel banks, and impact of debris carried by the flow.

Figure 10: Identified Levees on the Nez Perce Reservation, USACE Levee Database



LEVEED AREA NAME	SUMMARY
Culdesac	The project was federally constructed in 1971 and consists of a left bank levee embankment system along approximately 3,350 feet of Lapwai Creek.
Kooskia Middle Fork	The levee was federally constructed in 1949 and is 2,100 feet in length. on the left bank of the Clearwater Middle Fork River, east of Kooskia, Idaho.
Kooskia South Fork (Left Bank)	The project was federally constructed in 1951 on the left bank is on the left bank of the Clearwater South Fork River, east of Kooskia, Idaho. It is about 2,100 feet in length.
Kooskia South Fork (Right Bank)	The project was federally constructed in 1951 on the right bank of on the right bank of the South Fork Clearwater River, southeast of Kooskia, Idaho. It is 8,740 feet in length. It has had several Emergency Streambank restorations, rehabilitations, and such over the years.
Lawyers Creek LB	The project was federally constructed in 1960 on the left bank of Lawyer Creek, Idaho. The levee is about 8,600 feet long. The leveed area contains residential homes and commercial property.
Lawyers Creek RB	The project was federally constructed in 1960 on the left bank of Lawyers Creek. The levee is about 8,600 feet long. The leveed area contains residential homes and commercial property.
Nez Perce	Nez Perce Levee is a federal levee on the left bank of Long Hollow Creek, Lewis County, Idaho, and a tributary of the Little Canyon Creek. The project was federally constructed in 1971. It is about 5,000 feet long
Orofino	The project was originally constructed in 1949 at the confluence of Orofino Creek and the Clearwater River, in Orofino, Idaho. The levee is about 1,150 feet in length.
Peck 3	Big Canyon Creek, Idaho, which is a tributary of the Clearwater River. The original construction embankment material of the levee is unknown, but it is assumed to have come from the adjacent channel. U.S. Army Corps of Engineers (USACE/Corps) rehabilitated the levee in 1972 during Operation Foresight. The levee is about 700 feet in length.
Slickpoo (St. Joseph)	The project is on the right bank of Mission Creek, south of Slickpoo, Idaho. The levee is approximately 1,750 feet in length. The levee was federally constructed in 1965.
Stites	The project has two separate levee segments, both on the right bank of the Clearwater River-South Fork near Stites, Idaho. The levee was federally constructed in 1950. The upstream levee is about 1,400 feet long, while the downstream levee is about 3,600 feet.
Sweetwater	Sweetwater Levee is a non-federal levee on the right bank of Lapwai Creek. It is located in Idaho within the Clearwater River Basin. The levee was originally constructed by the Corps in 1965. The Initial Eligibility Inspection (IEI) report was completed in March 1988 and the levee instated into USACE's Rehabilitation and Inspection Program at that time. The levee is about 3,500 feet in length.

Table 9: Levees on the Nez Perce Reservation; USACE *National Levee Database*

Dams on the Nez Perce Reservation

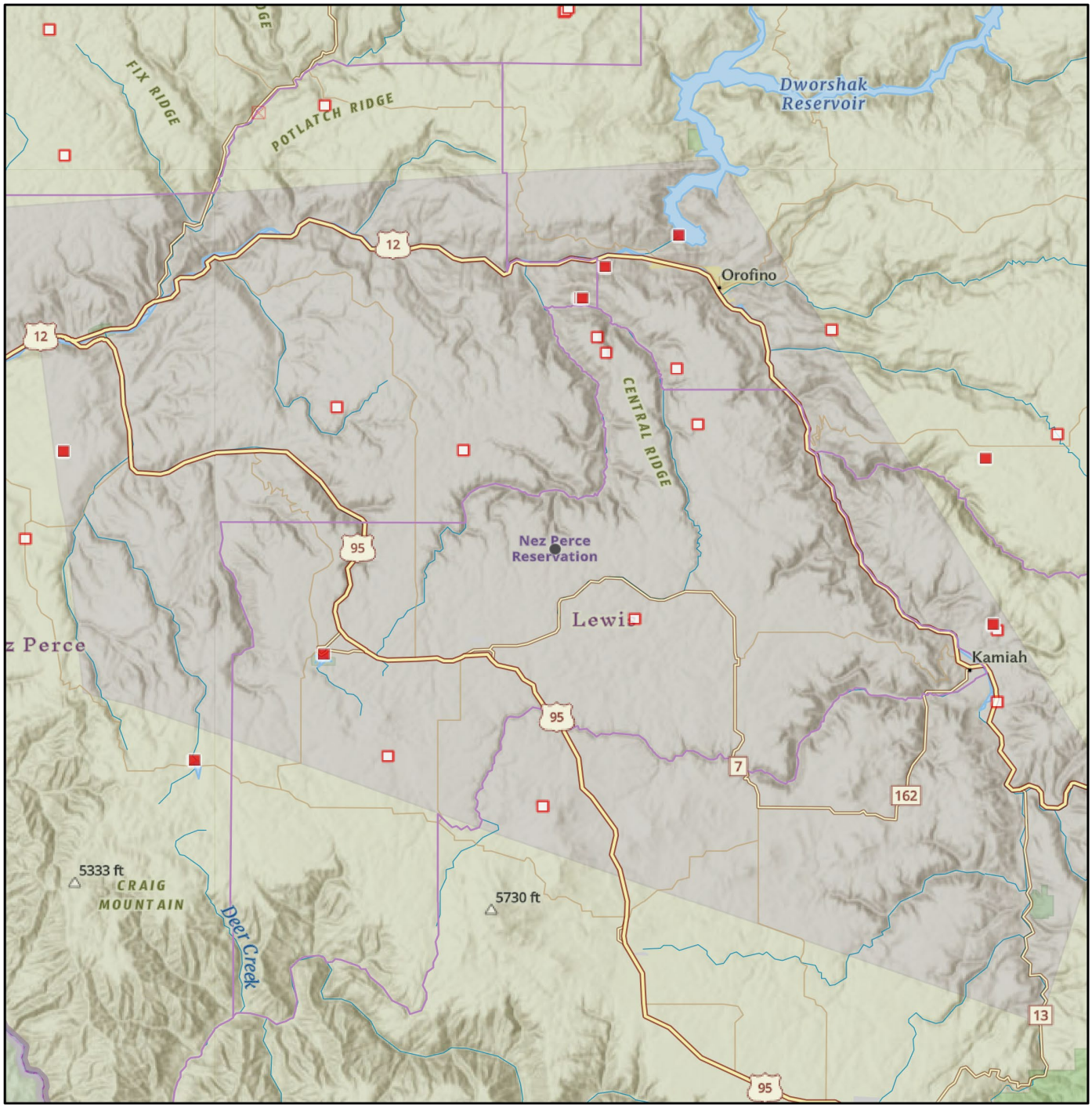


Figure 11: Map of Regulated Dams on Nez Perce Reservation (IDWR)

Dams

- Regulated
- Non-Regulated

Regulated Dams on the Nez Perce Reservation

Name	Year Build	Year Modified	Height (Ft.)	Storage (acre ft.)	Surface Area (acre)	Downstream Hazard Potential	Source	Tributary of
DWORSHAK	1973	N/A	701	3,453,000	16,417.00	High	North Fork	Clearwater River
RUNDELL	1979	N/A	19	23	6	Significant	Unnamed Stream	Clearwater River
Reservoir A	1907	1998	60	3300	96	High	Sweetwater Creek	Lapwai Creek
THOMPSON NO 1 DIKE	1967	N/A	7	12	6.1	Low	Unnamed Stream	Little Cayon Creek
THOMPSON NO 1 MAIN DAM	1967	1996	17	54	6.1	Significant	Springs	Little Cayon Creek
THOMPSON NO 2	1970	N/A	19	15	2.25	Significant	Spring	Clearwater River
WINCHESTER	1910	2001	40	1425	98	High	Lapwai Creek	Clearwater River

Table 10: Regulated dams located on the Nez Perce Reservation; IDWR.

Probability of Future Occurrence

The probability of flood events occurring on Tribal lands is high. Low magnitude flood events can be expected several times each year. Larger magnitude and high impact flood events have occurred but are not likely in any given year. These types of flood events have the highest probability of occurrence in the winter or early spring and often have a greater impact on the cities of Lapwai, Kamiah, Kooskia, Stites and other communities/infrastructure located near natural floodplains. Minor flash flood events are expected annually most likely as a result of summer thunderstorms or rain-on-snow events.

The South Fork of the Clearwater River runs along the southeastern edge of the Reservation through Stites and Kooskia before joining with the main stem of the Clearwater River. The Clearwater River then runs along the eastern edge of the reservation through Kamiah, Greer, and Orofino. Turning west, the Clearwater River then runs near the northern boundary of the Reservation and passes through Ahsahka, Lenore, and various other small communities and outlying residences. The Middle Fork and South Fork of the Clearwater River have a much higher probability of causing flood damage to area residents and communities. Although the USGS data is limited to the South Fork, it is clear that the 1964 flood was well outside the normal range of peak flows for the river. The 1996 and 1997 floods also show up as being above average peak flows; Table 2 summarizes major flood events on the Reservation. Due to the density of development as well as the lack of structurally sound levees, the communities

of Kooskia, and Stites as well as several individual residences along the South Fork of the

Clearwater has a high risk of flood events. Lawyer Creek also poses a flooding threat to nearby communities. In May of 2018 Lawyer Creek flooded Lawyer Canyon which resulted in the closure of State Highway 162 between Nezperce and Green Creek. 12 shows areas of the reservation that have been identified as flood hazard areas.

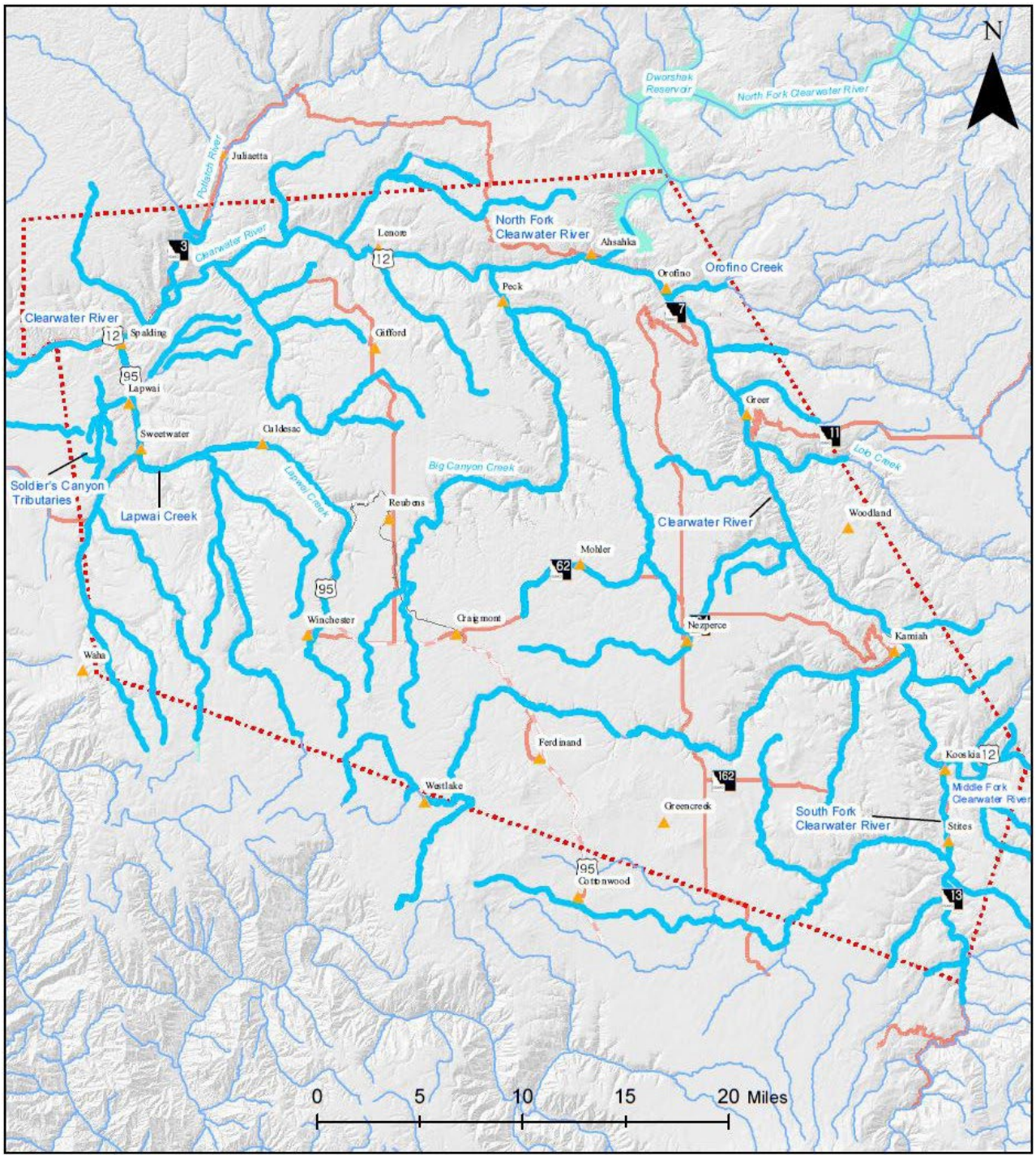


Figure 12:) Identified flood hazard areas on the Nez Perce Reservation.

Many dikes and levees have been constructed along both the Middle and South Forks of the Clearwater River in the Kooskia vicinity. A levee on the west bank of the South Fork extends from the mouth upstream to a point across the river from Third Avenue in Kooskia. The levee on the east bank begins approximately 1,000 feet downstream of B Street and extends upstream to approximately 350 feet above First Avenue. The levee begins again at the upstream end of the sewage lagoons, near Kooskia Airport, and extends upstream to approximately 5,000 feet past the southern city limits. South of the city, there are levees in various places along both sides of the South Fork Clearwater River. In February of 1948, the U.S. Army Corps of Engineers (USACE) performed clearing and snagging work along the South Fork levee for 2,000 feet in anticipation of the spring runoff that year. In 1949, the USACE made emergency repairs to 3,000 feet of the same levee above River Mile 1.0. These repairs were required due to the flood of 1948 (13).

Figure 13: The 1948 flood in Kooskia, ID

History of FEMA Declared Floods on the Nez Perce Reservation and Surrounding Counties

Year	Disaster	Location	Description
1964	Flood	Idaho, Clearwater, Lewis, and Nez Perce Counties	Heavy rain and flooding
1974	Flood	Clearwater County	Severe storms, snowmelt, and flooding
1996	Severe Storm	Idaho, Clearwater, Lewis, and Nez Perce Counties	Severe storms and flooding
1997	Severe Storm	Idaho, Clearwater, and Nez Perce Counties	Severe storms, flooding, mud, and landslides
2005	Flood	Nez Perce County and Reservation	Heavy rain and flooding
2010	Severe Storm	Idaho and Lewis Counties	Severe storms and flooding
2011	Flood	Nez Perce Reservation Idaho, Clearwater, and Nez Perce Counties	Flooding, landslides, and mudslides
2017	Flood	Idaho and Clearwater Counties	Severe storms, flooding, landslides, and mudslides
2019	Flood	Lewis, Nez Perce, Idaho, Reservation	Flash Floods, snowmelt, and mudslides
2024	Flood	Lewis, Idaho Counties, Reservation	Flash Floods, mudslides

Table 11: History of FEMA-declared floods on the reservation and in surrounding areas.

Flood Events on and near the Nez Perce Reservation

Year	Number of Events	Deaths	Injured	Damages
2019	2	0	1	$6,130,000.00
2020	2	0	0	$2,643,000.00
2021	1	0	0	$0.00
2022	4	0	0	$1,797,000.00
2023	3	0	0	$1,002,500.00
2024	2	0	2	$8,200,000.00

Table 12: NOAA, National Centers for Environmental Information, Storm Events Database

After the 1964 flood, local crews constructed a dike along the south side of the Middle Fork. This dike extends from the intersection of Dike Street in Kooskia and U.S. Highway 12, downstream 2,000 feet to a point upstream of the sewage lagoons. The dike along the Middle Fork has been tested twice with large flows in 1972 and 1974. Although flows in these years were not as large as the 1964 flood, they were close, coming to within 2,000 cfs. Table 2 displays FEMA declarations of disaster for flood events on the reservation and in surrounding counties.

The city of Kooskia has a very high risk of flooding from both the Middle and South Forks of the Clearwater River. The levees currently built along the riverbanks will most likely protect the city from flood events; however, most of these levees were built over 50 years ago, need maintenance, and may not hold during a large event. There are three major dams located in

the vicinity of the Nez Perce Reservation: Dworshak Dam, Winchester Dam, and Soldiers Meadow Dam. None of these structures have failed or been subject to significant damage. However, a threat of potential dam failure occurred for Winchester Dam following a severe flood/winter storm event in February 1996.

Impacts of Flood Events

The presence of multiple swift bodies of water on the Reservation increases the likelihood of flood-related fatalities to a moderate level. Flash flooding or accidents could lead to deaths or injuries. First responders or other individuals may become trapped under debris and suffer drowning or trauma from objects carried by the water. Once floodwaters recede, mold growth in wet materials can present a public health hazard. Floodwaters may also contain sewage and hazardous chemicals that could be deposited on properties following a flood. In addition, water and food supplies may become contaminated, and utilities such as heat and electricity might be disrupted for a period. Although the probability of these impacts occurring on a significant scale is very low, these factors could affect the immediate and long-term health of Tribal residents.

The Tribe's continuity of operations is seldom compromised by flood events. While localized flooding may impede the delivery of some services in specific areas, alternative routes typically mitigate this concern. Damage to facilities, equipment, or files could affect certain organizations or public services, depending on the scale and duration of the event.

Flooding on the Reservation is most likely to impact on private property by damaging homes, businesses, barns, equipment, livestock, and vehicles. Both water and contaminants can harm or permanently ruin equipment. Floodwaters can also cause land erosion, particularly affecting infrastructure such as roads, power lines, pipelines, sewage control facilities, levees, and bridges. Environmental impacts of localized flooding may include stream bank erosion, loss of riparian plant life, and contamination by chemicals or sewage. However, some environmental benefits could arise, such as the formation of meanders that slow stream flow, the replenishment of wetland areas, and soil enrichment through sediment deposition.

Flooding on the Reservation is likely to have a significant or long-term effect on the local economy. Depending on the magnitude of the event, individual residents and businesses may be adversely impacted, but the economic viability of the community will not be affected. Severe damage to transportation infrastructure may have a short-term impact on certain communities due to the presence of state and U.S. highway routes, but alternative routes are available.

Changes in the timing and intensity of precipitation is an expected result of a changing climate, the Idaho State Hazard Mitigation Plan (SHMP) states that areas within the United States that are prone to flooding will increase by up to 45% by 2100. (FEMA U.S. (2013). The Impact of Climate Change and Population Growth on the NFIP through 2100.) In addition, by 2050 snowmelt is projected to occur three or four weeks earlier than the 20th century average. The Clearwater Sub-basin is expected to shift from a snow-dominant basin to a rain-

snow and rain dominant basin by mid-century, and heavy downpours are projected to increase by 13% (Hamlet et. Al 2013, U.S. Global Change Research Program. (Alan F. Hamlet , Marketa McGuire Elsner , Guillaume S. Mauger , Se-Yeun Lee , Ingrid Tohver & Robert A. Norheim (2013) An Overview of the Columbia Basin Climate Change Scenarios Project: Approach, Methods, and Summary of Key Results, Atmosphere-Ocean, 51:4, 392-415, DOI: 10.1080/07055900.2013.819555) Heavy downpours in rain-snow mix and rain dominant basins could increase flood risk, and stormwater management challenges. In addition, the dry season, and the fire season, is expected to be longer and more intense in the Pacific Northwest, leading to a greater probability of erosion, mudslides, and landslides during precipitation events that could exacerbate the severity of floods (U.S. Global Change Research Program, 2014, National Climate Assessment).

Development in or near floodplains increases the likelihood of flood damage. New developments near a floodplain add structures and people in flood areas thereby increasing, not the extent of the flood itself, but the impacts or damages that may be caused. New construction can also alter surface water flows by diverting water to new courses or increasing the amount of water that runs off impervious pavement and roof surfaces. This second effect diverts waters to places previously unaffected by flood issues. Unlike the weather and the landscape, this flood-contributing factor can be controlled. Development and occupation of the floodplain places individuals and property at risk. Such use can also increase the probability and severity of flood events (and consequent damage) downstream by reducing the water storage capacity of the floodplain, or by pushing the water further from the channel or in larger quantities downstream. (**Planning and Flood Risk. Planning Policy Statement 15. The Planning Service, Department of Environment. June 2006. Available online at http://www.planningni.gov.uk/index/policy/policy_publications/planning_statements/pps15-flood-risk.pdf .**)

Dam and Levee Failures

Dams

Three major dams are located in the vicinity of the Nez Perce Reservation: Dworshak Dam, Winchester Dam, and Soldiers Meadow Dam (Figure 8). None of these structures have failed or been subject to significant damage. However, a threat of potential dam failure occurred for Winchester Dam following a severe flood/winter storm event in February 1996.

Three of the dams are regulated by the Idaho Department of Water Resources (IDWR). Dams regulated by the IDWR include concrete and earthen structures that are 10 feet higher or store more than 50-acre feet of water. The largest dam located within the Reservation is Dworshak Dam. Dworshak Dam, which is fed by the North Fork Clearwater River, is located in Clearwater County, 5 miles north of Orofino. As the biggest concrete dam in the State, it is over 633 feet high and has a storage capacity of 3,453,000 acre-feet.

The second, smaller dam, Soldiers Meadow Dam, is located 6 miles southeast of Waha in Nez Perce County. This earthen dam, which is fed by Webb Creek, is 50 feet high and has a water

storage capacity of 2,370 acre-feet. The smallest dam located near Winchester in Lewis County is Winchester Dam. Winchester Dam, which is also an earthen dam, is 36 feet high and can hold more than 850 acre-feet of water.

The IDWR classifies potential losses and damages anticipated to downstream areas during a dam failure. Dworshak Dam, Soldiers Meadow Dam, and Winchester Dam are all classified as high risk. Dams rated in this classification can potentially inundate downstream areas with floodwater levels with depths of more than 2 feet and/or a velocity of 2 feet or more per second.

Failure of Dworshak Dam would likely be contained without causing failure of McNary Dam, near Umatilla, Oregon. However, dam failure would cause property damage to rail lines along the Clearwater and Snake rivers; Highways 12 and 730; and the Nez Perce Tribal Fish Hatchery on the Clearwater River and numerous other structures in the flood plain. Flooding would occur at Orofino within 45 minutes, with a peak flood time of 3 hours and 45 minutes and a peak water level of 80 feet. Flooding would also affect the Nez Perce National Historical Park within 2 hours, with a peak time of 5 hours and 30 minutes and a peak water level of 55 feet. Floodwater arrival at the confluence of the Snake and Clearwater rivers in Lewiston would be 3 hours and 15 minutes, with a peak water level of 52 feet at 6 hours and 30 minutes. In addition, floodwaters would affect the communities of Mrytle, Lenore, Spalding, and Ahsahka. Floodwaters would not directly impact the city of Lapwai.

Failure of Soldiers Meadow Dam would have a significant impact on the city of Lapwai and the Tribal Headquarters. In a sudden failure, floodwaters would reach the city of Lapwai within an hour and affect the entire valley floor at Sweetwater, Lapwai, and Spalding. The depth and duration of the flood is also dependent upon conditions.

In a sudden failure, floodwaters from Winchester Dam could reach the city of Lapwai fairly soon. Floodwaters would impact Culdesac, Sweetwater, Lapwai, and Spalding. The depth and duration of the flood is dependent upon conditions and are not certain. It has been determined that a series of culverts leading this stream through Highway 95 would slow the progress of floodwaters significantly and buffer the impact of dam failure.

All three dams are inspected annually by the IDWR to ensure that they are in good operating condition. An imminent dam failure for any of the three dams is not expected due to structural damage caused by earthquakes or flooding. In addition, all three dams are considered to be at low risk to terrorists' attacks.

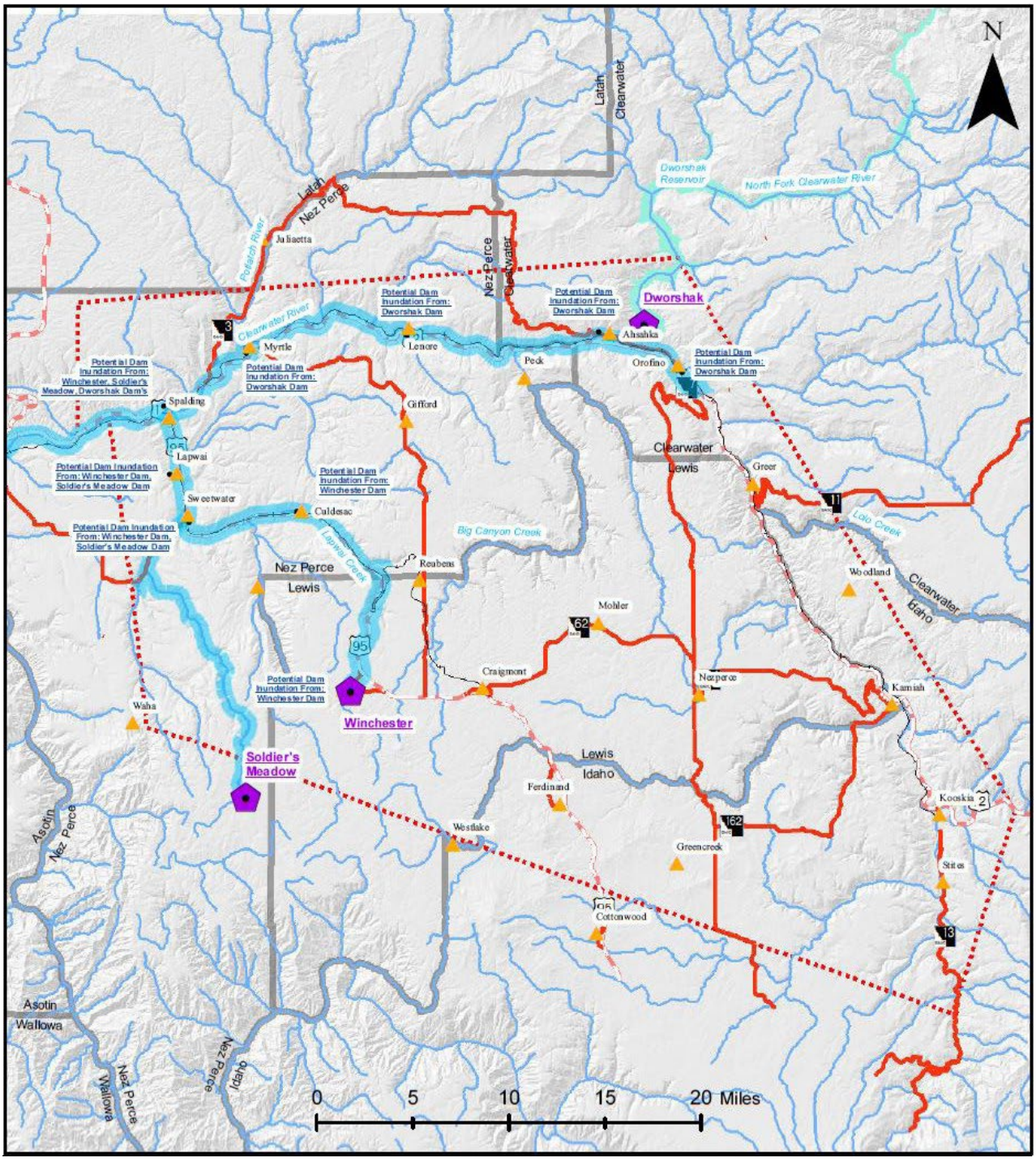


Figure15: Dam location and areas likely to be inundated in the event of a dam failure on the Nez Perce Reservation.

Levees

There are twelve levees located on the Nez Perce Reservation. Refer to Figure 6 and Table 2 for a comprehensive list and locations of all twelve levees. Since their construction, only one levee has

experienced a breach: the Lawyer Creek levee system. Elevated water levels in the Clearwater River, exacerbated by a breach along Lawyer Creek, led to significant flooding near the confluence of these two streams on the eastern edge of Kamiah. Reports indicate that floodwaters reached waist-deep levels in Kamiah Riverfront Park. The flood also partially inundated a lumber yard, compromised a railroad grade and trestle crossing Lawyer Creek, and restricted access to the city's water plant. The public works department undertook temporary repairs as the creek's water levels receded. Lewis County has applied for FEMA funding to permanently repair the levee.

While all twelve levees comply with the USACE's minimum safety standards, none of these twelve levees meet FEMA's certification criteria. Although the probability of a future levee breach is low, it would be prudent for the Tribe to collaborate with the four other affected counties on FEMA's floodplain mapping and the National Flood Insurance Program (NFIP).

Value of Resources at Risk

Several of the cities and towns located on the Nez Perce Reservation are at risk of flooding. If there was a 1%, 100-year, flood event significant damage would be expected, including residential homes, business, industrial complexes, critical infrastructure including utilities, roads, bridges, schools, healthcare facilities, health clinics, and more. Even though very unlikely, in the event of a dam or levee breach, several more structures will be at risk of damage.

For example, nearly all of Kooskia on both sides of the South Fork of the Clearwater River and a significant portion of the city along the south side of the Middle Fork, particularly on the eastern edge, have a high risk of flooding. This includes large sections of residential areas as well as much of the Main Street business district. City Hall, the fire department, the airport, the wastewater treatment facility, and three municipal well heads are included in this floodplain. Just south of the city limits, the floodplain also includes the Clearwater Forest Industries mill and a portion of the parcel containing Clearwater Valley High School. Furthermore, a section of State Route 13 through downtown Kooskia and a section U.S. Highway 12 on the north side of the Middle Fork are within the floodplain and could potentially be damaged or closed. The State Route 13 bridge crossing on the Middle Fork and a smaller access bridge about ½ mile upstream are also in the floodplain; however, both bridges were built to withstand a major flood event.

Table 8 displays the type and number of structures found in different flood and inundation zones identified on the reservation and the estimated cost to replace damages to buildings and infrastructure. Reservation-wide, more than 1,700 Tribal member's structures are located in an area of risk of flooding.

Tribal Infrastructure at risk of Flooding if a Dam or Levee Breaches

Structure Type	Number	Value
Homes/Residential	591	$222,141,534
Tribal Offices and Facilities	11	$27,935,092
Gathering Places and Community Centers	3	$6,769,959
Police and Fire Stations	2	$6,215,028
Health Clinics	2	$11,326,631
Enterprises	5	$41,610,737
Total Estimated Value		**$316,553,949**

Table 13: US Census 2020

Flood Zones include all areas within 500 feet of tributaries.

Residential building Inventory from 2019 HMP

US Burow of Labor Statistics, plus the Consumer Price Index Calculator

Geologic Hazards Profile

Geologic hazards, natural events stemming from the dynamic processes of the Earth, pose varying levels of risk to the Nez Perce Reservation and its members. These hazards include landslides, volcanic ashfall, and, to a lesser extent, earthquakes. Although the Reservation is not located in a region with frequent or severe geologic activity compared to other parts of the Pacific Northwest, the topographic, soil, and hydrologic characteristics of the region make it susceptible to specific geologic threats. This section identifies and evaluates the geologic hazards relevant to the Reservation, their historic and potential impacts, and the associated resources at risk.

History and Impact of Future Occurrence

Landslides

Landslides are considered a moderate to high risk within the Nez Perce Reservation due to the area's varied topography, seasonal precipitation, and vulnerable soils. The Reservation spans steep canyon walls, forested uplands, and unstable slopes adjacent to major transportation corridors such as U.S. Highways 12 and 95. These natural conditions, combined with human activities like road cuts, logging, and development, increase landslide susceptibility.

Landslide is a general term for a wide variety of downslope movements of earthen materials that result in the perceptible downward and outward movement of soil, rock, and vegetation under the influence of gravity. The materials may move by falling, toppling, sliding, spreading, or flowing. Some landslides are rapid, occurring in seconds, whereas others may take hours, weeks, or even longer to develop. Although landslides usually occur on steep slopes, they also can occur in areas of low relief. **("Landslides." SAARC Disaster Management Center. New Delhi. Available online at http://saarc- sdmc.nic.in/pdf/landslide.pdf.)**

Landslides range from shallow debris flows to deep-seated slumps. They destroy homes, businesses, and public buildings, undermine bridges, derail railroad cars, interrupt transportation infrastructure, damage utilities, and take lives. Sinkholes affect roads and utilities. Losses often go unrecorded because insurance claims are not filed, no report is made to emergency management, there is no media coverage, or the transportation damages are recorded as regular maintenance.

The frequency of landslides, particularly cut and fill slopes along roads, is due to geology, vegetation, climate, soils, and other human factors. There are, on occasion, severe landslide events that occur in Idaho. There have been eight declared disasters since 1990. **(Idaho Bureau of Homeland Security. April 2011. Available online at www.bhs.idaho.gov)**

Since 1976, major events have had a significant impact on transportation, communities, and

natural resources in 1982, 1986 (x2), 1991, 1996-97, 1997, 1998 (x2), 2000, 2017, and 2019.

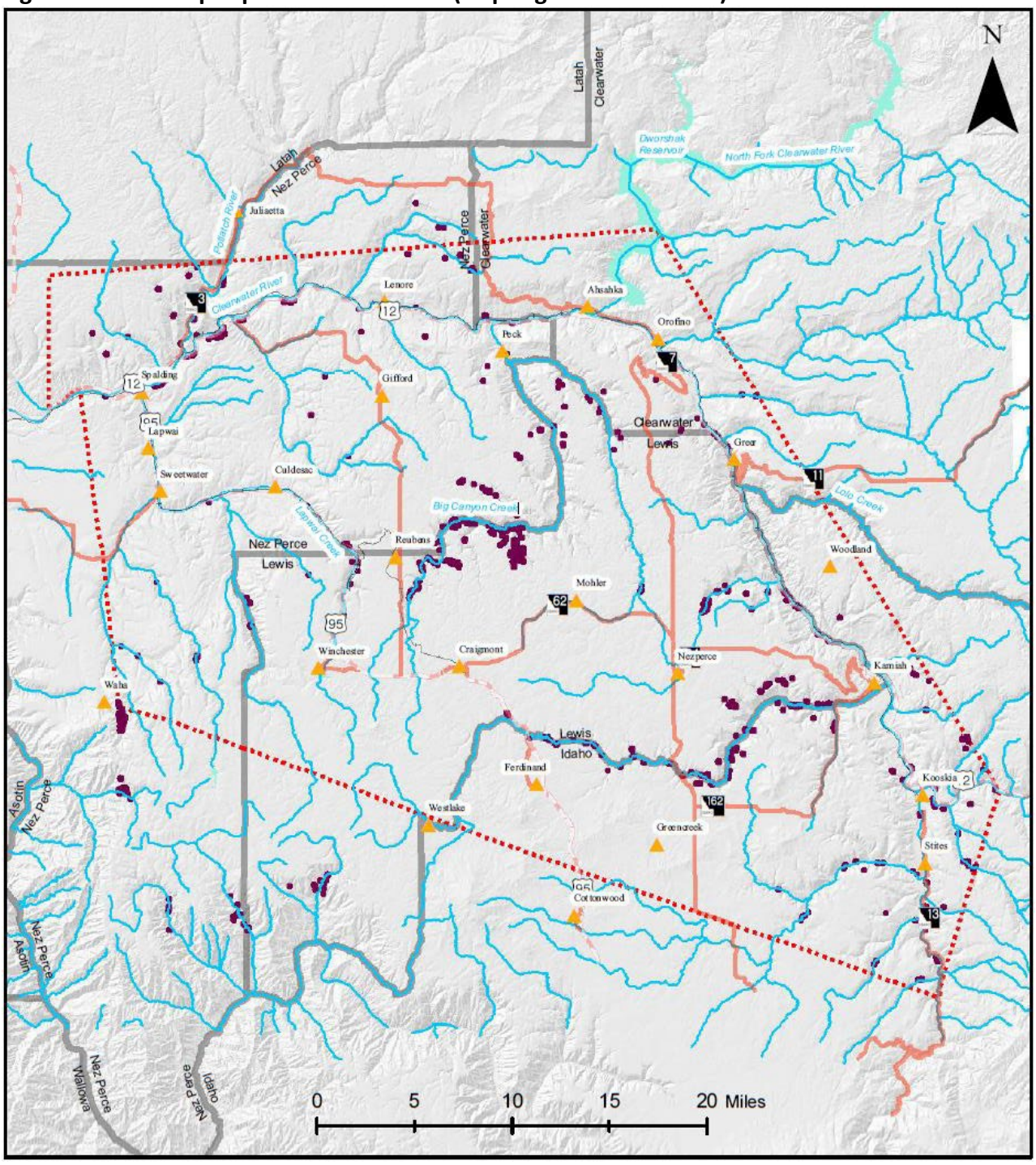
Table 14: Landslide disaster declarations for Idaho counties.

Year	Month	Federal	Counties Affected
1982	July		Boise
1986	February		Boise
1986	March		Boise, Elmore, Lewis, Nez Perce, Owyhee
1991	April		Bonner
1996-1997	November-January	X	Adams, Benewah, Boise, Bonner, Boundary, Clearwater, Elmore, Gem, Idaho, Kootenia, Latah, Nez Perce, Owyhee, Payette, Shoshone, Valley, Washington
1997	March-June	X	Benewah, Bonner, Boundary, Kootenia, Shoshone
1998	May & October		May: Lemhi, Nez Perce, Washington; Oct: Boundary
2000	June		Kootenai
2010	April		Bonner, Idaho, Shoshone
2011	April-May	X	Bonner, Boundary, Clearwater, Idaho, Nez Perce, Shoshone and Nez Perce Tribe
2017	May	X	Boundary, Bonner, Kootenia, Benewah, Shoshone, Latah, Clearwater, Idaho, Valley
2019	April	X	Latah, Lewis, Idaho, Adams, Valley

FEMA: website Disasters and Other Declarations:
https://www.fema.gov/disaster/declarations?field_dv2_declaration_date_value%5Bmin%5D=2018&field_dv2_declaration_date_value%5Bmax%5D=2025&field_dv2_declaration_type_value=DR&field_dv2_incident_type_target_id_selective=All&field_dv2_state_territory_tribal_value%5B%5D=ID

Significant landslide events have occurred in surrounding areas, particularly in the Clearwater and Snake River canyons. For example, the Idaho Geological Survey (IGS) and past Nez Perce Hazard Mitigation Plans have noted slope failures triggered by heavy rain or snowmelt events. Climate change, which may bring more intense precipitation, increases the probability of future landslide occurrences.

Figure 16: Landscapes prone to landslides (slopes greater than 55%) on the Nez Perce Reservation



(Idaho Bureau of Homeland Security. Available online at www.bhs.idaho.gov)

Impact of Landslide Events

Landslides are a recurrent threat to waterways and highways and a danger to homes, schools, businesses, and other facilities. The unimpeded movement over roads—whether for commerce, public utilities, school, emergencies, police, recreation, or tourism—is essential to the normal functioning of the Reservation. The disruption and dislocation of these or any other routes caused by landslides can quickly jeopardize travel and vital services. Although small slumps on cut and fill slopes along roads and highways are relatively common, nearly all of the more significant landslide risks on the Reservation are associated with the steeper, mountainous slopes.

Population centers and individual homes in the Clearwater River corridors (Stites, Kooskia, Kamiah, Greer, Ahsahka, Orofino, Spalding) and Lapwai Creek (Lapwai, Culdesac) have the highest risk of experiencing slides. However, most of the damage from slides on the Reservation will likely occur along roadways. Major landslides in communities that are situated along river corridors could cause property damage, injury, and death and may adversely affect a variety of resources. For example, water supplies, fisheries, sewage disposal systems, forests, dams, and roadways can be affected for years after a slide event. The negative economic impacts of landslides include the cost to repair structures, loss of property value, disruption of transportation routes, medical costs in the event of injury, and indirect costs such as lost timber and fisheries. U.S. Highways 95 and 12 have experienced numerous slides of varying severity that have blocked one or both lanes for several days.

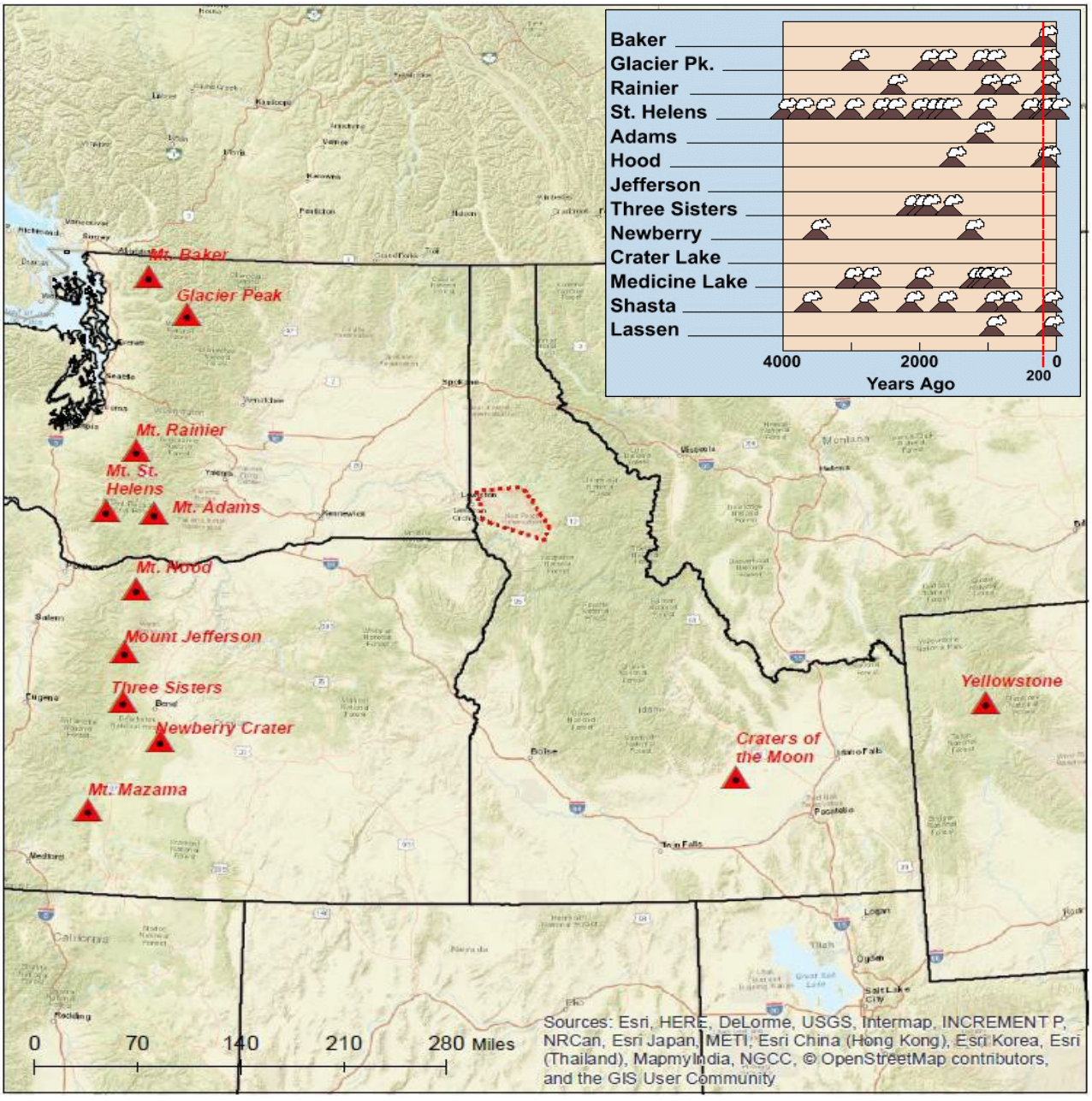
Slides in the river and stream drainages may also block the channel causing water to back up and spill over into areas not previously at risk to flooding. Numerous communities and homes could be at risk if this type of event were to occur. In many cases, a slide blocking the water channel would also cut off emergency access routes as many roads on the Reservations parallel the streams and rivers.

Volcanic Eruption

The Nez Perce Reservation lies outside any immediate volcanic hazard zones, but it is indirectly at risk from regional ashfall events. The primary source of volcanic ashfall risk is Mount St. Helens in Washington, as well as other Cascade Range volcanoes such as Mount Rainier and Mount Hood. The most significant historical impact occurred during the 1980 eruption of Mount St. Helens, which deposited ash across eastern Washington, northern Idaho, and beyond, disrupting transportation, agriculture, and air quality.

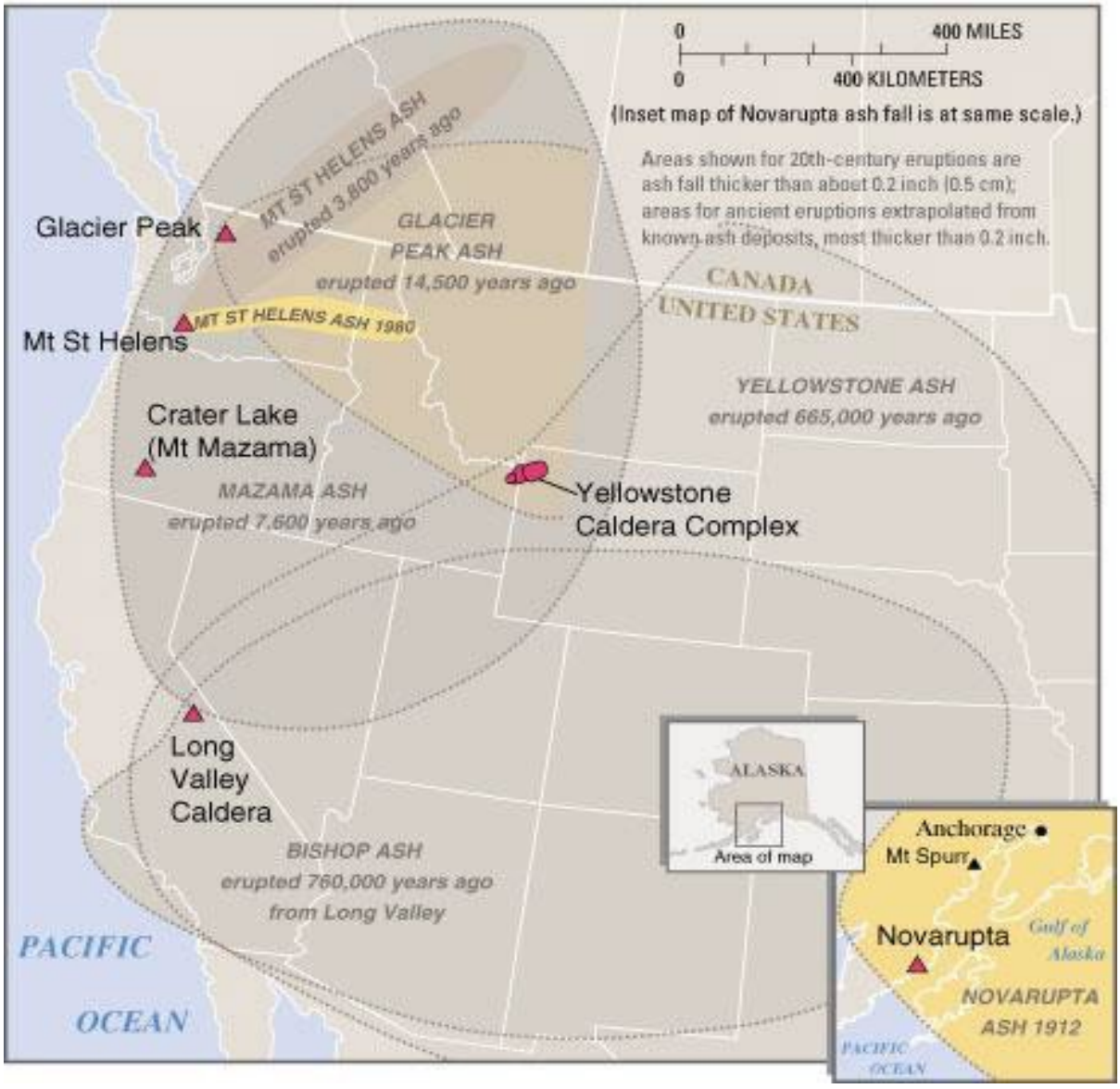
Prevailing wind patterns can transport ash eastward over the Nez Perce Reservation during a future eruption. While ashfall may not threaten life directly, it can clog air filters, damage electronics, reduce air quality, harm livestock, and hinder transportation and emergency response. According to the U.S. Geological Survey (USGS), future volcanic eruptions in the Cascades are a certainty; the uncertainty lies in the timing and scale (USGS, 2023).

Figure 17: Location and eruption-frequency of volcanoes in the Cascade Mountain Range



Impact on Volcanic Eruption

Figure 18: Historic ash fall map for the Pacific Northwest. Kenedi, C.A. et al. USGS 2000.



The most likely impact from a volcanic eruption that would affect the Nez Perce Tribe would be ash fall from one of the many active volcanoes along the Cascade Mountain Range. Volcanic ash is a mixture of small particles of rock and glass fragments; winds can carry ash thousands of miles from the eruption site. **(Kenedi, C. A., Brantley, S.R. Hendley II, J.W., Stauffer, P.H., (2000). Volcanic Ash Fall – A "Hard Rain" of Abrasive Particles. USGS. Retrieved from: https://pubs.usgs.gov/fs/fs027-00/)**

Prolonged exposure to ash can poses a health risk to people with respiratory conditions, children, and the elderly, leading to increased hospital visits and increased need/access to

medications. Ash build up on rooftops of buildings can cause collapse, potentially causing injury or death. Water quality and wastewater management can be impacted or disrupted by ashfall. addition to the risk to human health, ash can cause disruption to everyday activities; vehicle engines can become clogged with ash causing them to stall, power distribution systems can fail, communication systems may be disrupted due to the scattering or absorption of radio signals, crop damage and effects on livestock can range from minimal to severe[265]. Disruption to transportation systems through the closing of roadways and airports can potentially result in economic loss and stranded citizens.

There are no active volcanoes on the Reservation; however, communities in this area could be directly affected by an eruption from any one of the Cascade volcanoes. During an eruption, such as the 1980 eruption of Mount St. Helens, the Reservation is not likely to be directly affected by lava flows, pyroclastic flows, landslides, or lahars; however, this region may be indirectly impacted due to damming of waterways, reduced air and water quality, acid rain, and ash fallout, Figure18.

Earthquakes

The Reservation lies in a seismically stable area relative to western Idaho and the Intermountain Seismic Belt. Historic seismic activity is minimal, and the probability of a damaging earthquake directly affecting the Nez Perce Reservation is considered low. However, distant quakes—such as those in the Lewiston-Clarkston Valley or Yellowstone region; could be felt locally and potentially affect infrastructure depending on soil type and building construction.

The Idaho Geological Survey places the Reservation in a low seismic hazard zone. **(IGS, 2022)**. As a result, while earthquake preparedness is still encouraged as a precautionary measure, it is not a primary geologic threat to the Tribe.

Value of Resources at Risk

Landslides pose the most immediate geologic threat to physical infrastructure on the Reservation. Slides in the identified Clearwater Impact Zone are more likely to be larger and more damaging as weaknesses in the underlying rock formations give way. Although infrequent, this type of slide has the potential to not only block, but destroy road corridors, dam waterways, and demolish structures. Several structures lie within the Impact Zone as well as sections of

U.S. Highway 12 State Route 13. U.S. Highway 95 only has a short section of landslide prone

slopes in the canyon south of Culdesac, and many of the other highly prone areas within the Reservation are on secondary roadways, table 15 shows the type and number of structures found in designated landslide areas across the reservation. In total, there are only about 20 homes/residential structures and several outbuildings that are in landslide risk areas. Refer to the maps in this section and the *Vulnerable Areas and Infrastructure* for *total* values at risk on the Nez Perce Reservation.

The cost of cleanup and repairs resulting from slumps along roadways is difficult to estimate due to the variable circumstances with each incident including the size of the slide and proximity to a road maintenance shop. Other factors that could affect the cost of the damage may include culverts, streams, and debris removal.

Structures at risk to landslides on the Nez Perce Reservation

Structure Type	Count
Homes/Residential Structures	20
Outbuildings	Several
Total Value	**$6,017,480***

Table 15: GIS: *Value includes countable structures only (outbuildings were not included.)

Volcanic eruption represents a regional hazard with broad but diffuse impacts. Ashfall can contaminate water sources, reduce air quality, especially dangerous for elders and those with respiratory conditions. Sensitive populations: elderly, children, and those that have respiratory issues, are susceptible to the fine particulates from the ash fall. The effects of inhaled ash are dependent on the composition of ash, size distribution of the inhaled material, the inhaled dose, and whether the individual had pre-existing respiratory conditions. **(Buist, S.A., et al. (1986). The Development of a Multidisciplinary Plan for Evaluation of Long-term Health Effects of the Mount St. Helens Eruptions.)** Damage machinery and vehicles are expected. Agricultural operations, including both crop and livestock systems, may suffer reduced productivity. Emergency response systems, including communication and transportation networks, may be impaired by heavy ash accumulation.

It is difficult to estimate the potential losses across the Reservation from a volcanic eruption, the main impact to eastern Washington, Idaho, and Oregon from Mount St. Helens in 1980 eruption was ash accumulation on the roadways. Interstate 90 that runs from Spokane to Seattle was closed for a week, and multiple highways closed throughout northern Idaho. In addition to road closures, the Portland International Airport had to stop flights for a few days. Towns, including Moscow and St. Maries, Idaho enacted 10 mph

speed limits, and, in many areas, transportation came to a complete standstill leaving travelers stranded. Disruption to the transportation systems also lead to economic losses as business slows and transportation of merchandise are either slowed or stopped. In Idaho alone the cost to businesses, clean-up, and vehicle damage was estimated in the tens of millions of dollars. **(Volcano, 1980 Mount St. Helens: Idaho Office of Emergency Management. Retrieved from: https://ioem.idaho.gov/Pages/History/VolcanoHistory.aspx)**

Structural damage to buildings is not common from ashfall but depending on thickness of ash and structural design of the build it can occur. A layer of ash four inches thick can weigh between 120 to 200 pounds per square yard, and wet ash can weigh double. **(Oppenheimer, Clive. 2011. Eruptions that Shook the World. University of Cambridge)**

Earthquake risk, though low, could affect older or non-code-compliant buildings, utility systems, and bridges. Tribal facilities—such as health clinics, schools, and government buildings—are critical assets that should be evaluated for seismic resilience even in low-risk areas.

In all cases, the cultural, historical, and spiritual significance of lands on the Nez Perce Reservation elevates the impact of geological hazards beyond simple financial cost. Damage to ancestral lands, ceremonial areas, or traditional food gathering grounds may result in profound cultural loss.

Extreme Weather Hazard Profile

(For additional information see Appendix – 4)

Extreme weather events—defined as severe or unseasonal atmospheric conditions—pose growing risks to the Nez Perce Tribal members, infrastructure, economy, and ecosystems. These events include severe storms, extreme heat, heavy snowfall, ice storms, strong wind events, and prolonged droughts. Scientific consensus links increased weather volatility and intensity to the ongoing impacts of climate change. **(University of Idaho McClure Center, 2021; NOAA, 2024)** The Nez Perce Reservation, situated across diverse topographies in North Central Idaho, is particularly vulnerable due to its rural setting, elevation gradients, and reliance on seasonal access routes and traditional land uses.

Severe weather is a serious hazard that can and does affect the Nez Perce Reservation on a regular basis. Severe weather affects the entire state of Idaho with varying degrees, due to the complex landscape and the influence from the Pacific Ocean. Although Idaho's severe weather is minimal in comparison with the rest of the nation, severe weather poses a significant hazard to the state and local communities. Storm-related Presidential Disaster Declarations were made for Idaho in 1964, 1972, 1974, 1996, 1997, 2005, 2006, 2010, 2019, and 2024. **(FEMA)** Most of these storms resulted in flood damages. Severe weather within the Reservation consists of droughts, hailstorms, and windstorms; Figure 9 is a map of past major storm occurrences in Idaho.

The pattern of average annual temperatures for the Reservation indicates the effects of altitude on temperature. The highest annual averages are found in the lower elevations of the Clearwater and downstream to Lewiston. The range between the mean temperature of the coldest and warmest months of the year varies from less than 40°F, to well over 50°F at stations in higher elevation. In summer, periods of extreme heat extending beyond a week are quite rare; the same can be said of periods of extremely low temperatures in winter. In both cases the normal progress of weather systems across the Reservation usually results in a change at frequent intervals. Extreme temperatures, when coupled with low precipitation for extended periods of time, can lead to a drought.

Thunderstorms are a common occurrence across the Reservation and with them comes the potential for a variety of other severe weather phenomenon. Typically, their impacts are fairly limited and do not significantly affect the communities. The secondary effects of thunderstorms can be widespread and include hail, high winds, and lightning events.

Past weather patterns show that severe weather conditions are likely to happen in any part of the Nez Perce Reservation in any given year. The topographical features of the area contribute greatly to the various weather patterns that occur. All areas within this region are vulnerable to severe local storms.

Types of Extreme Weather Affecting the Reservation

Severe Thunderstorms and High Winds

High wind events associated with thunderstorms or frontal systems regularly affect the region. Gusts exceeding 60 mph can down trees and powerlines, damage property, and ignite wildfires via lightning strikes.

- Local Impacts: A major windstorm in September 2020 caused extensive tree damage in Kamiah and Lapwai, downing utility lines and triggering localized outages. **(Nez Perce Tribe Emergency Management, 2021)**
- Future Trends: Windstorm frequency may increase as climate variability alters atmospheric pressure gradients. **(NOAA, 2024 National Centers for Environmental Information)**

Extreme Heat

Heatwaves – defined as three or more consecutive days of abnormally elevated temperatures, are increasing in frequency and duration across Idaho.

- Observed Trends: Summer temperatures in Idaho have increased by over 2°F since 1970, and the number of extreme heat days is projected to double by mid-century. **(University of Idaho McClure Center, 2021)**
- Vulnerable Groups: Elders, children, and residents without cooling systems are at elevated risk of heat stress and dehydration. **(CDC, 2022. *Extreme Heat and Your Health*.2022)**

Winter Storms

Heavy snowfall and ice accumulation can create treacherous travel conditions, interrupt utility service, and isolate remote communities.

- **Recent Example:** A January 2023 snow and ice event resulted in road closures and emergency warming center activations across Lapwai and Winchester. **(Nez Perce Tribe Emergency Management, 2023)**

- **Climate Link:** Warmer winters are leading to more freeze-thaw cycles and mixed precipitation events, increasing the likelihood of damaging ice storms. **(EPA, 2023 *Climate Change Indicators in the United States: Snowpack, Heat Waves, Ice Events*.)**

Microbursts and Straight-line Winds

- Short-duration but intense wind bursts – often associated with collapsing thunderstorm cells—can damage homes and forests without warning.
- Impacts: Localized tree blowdowns and power interruptions, on June 6, 2019, in the Lapwai and Kooskia areas. (NOAA: Storm event database)

Fog and Low Visibility

Prolonged ground-level fog during fall and winter affects tribal transit, safety, and emergency response, particularly along highways 95 and 12.

Drought

The Idaho Department of Water Resources reports that meteorological drought conditions (a period of low precipitation) existed in the State approximately 30% of the time during the period 1931-1982. Principal drought in Idaho, indicated by stream flow records, occurred during 1929-41, 1944-45, 1959-61, 1977, and 1987-92. (Idaho Department of Water Resources. 2010. Idaho Drought Emergency Declarations) According to the State of Idaho, a drought from 1987-1992 resulted in the worst water shortage in 10 years. Additionally, below-capacity reservoirs resulted in reduced irrigation capacity, plowed-under crops, high water temperatures, and starvation of wildlife due to the lack of perennial grass growth. Prolonged droughts can also impair fish and wildlife habitats and reduce crop yields.

- Droughts occurred in the Nez Perce Reservation in 2022 and in 2024. The droughts significantly impacted traditional root gathering areas and agricultural production across the Camas Prairie, and damaged several tribal members, crop production. **(Nez Perce Tribe Natural Resources. NOAA Storm Event Database)**
- Climate Trend: Earlier snowmelt and reduced snowpack are driving prolonged dry periods. **(USGE, 2023. Observed and Projected Changes in Snow Water Equivalent Across Idaho)**
- **(USGS, 2023. *Observed and Projected Changes in Snow Water Equivalent Across Idaho*.)**

Historical and Events

Year	Winter Storms	Thunder-Storms and High Winds: >1 50 mph.	Extreme Heat: >100°F.	Hail: >1.0 in.	Other	Impact Highlights
2019	10	4	4	4	0	Widespread treefall, power outages, road hazards, and vehicles damage. $176,000 in damages.
2020	9	4	0	0	1	Blowing snow, reduced visibility, road closures, power outages, treefalls, building damage, and funnel cloud spotted. $50,000 in damages.
2021	12	8	2	0	0	Blowing snow, reduced visibility, road closures, power outages, treefalls, building damage, bridge damage, and vehicles damage. Temperatures >100°F for 7 days. $35,000 in damages.
2022	21	7	2	4	1	An Atmospheric River brought heavy snow, which caused an avalanche. Drought conditions: crop stress. Road closures, treefalls, power outages, structure damage, and vehicle damage. Funnel Cloud spotted. $206,000 in damages.
2023	5	5	1	1	0	Heavy snow, treefalls, road closure, property damage. $8,500 in damages.
2024	9	5	2	3	1	Heavy snow. Hurricane force winds caused hundreds of treefalls, structure damage, blocked roads, power outages, croup damage, and one reported injury. Drought conditions with excessive heat for two weeks. Funnel cloud spotted. $543,000 in damages.

Table 16: NOAA Storm Events Database

Outlook and Climate Influence

Projections for Idaho's climate show a clear intensification of extreme weather patterns**. The Idaho Climate-Economy Impacts Assessment forecasts:**

- A doubling to tripling of extreme heat days in North Central Idaho by 2050. **(University of Idaho McClure Center, 2021)**

- A continued decline in snow water equivalent due to earlier and faster snowmelt, with implications for water supply and fire risk. **(U.S. Geological Survey (USGS). (2023).** ***Observed and Projected Changes in Snow Water Equivalent Across Idaho*****)**

- Greater variability in storm tracks, increasing the risk of late-season ice storms and unseasonal temperature swings. **(National Oceanic and Atmospheric Administration (NOAA). (2024)** ***Climate at a Glance: Idaho Trends)***

Vulnerabilities for the Nez Perce Tribe

The Nez Perce Reservation region will see average summer highs going up by five degrees or more by mid-century. This trend indicates that the need for greater resources and attention offered to populations with greater risk of being exposed to the heat or experiencing heat-related illness in these conditions. This could include unhoused and elderly populations. **(Idaho Climate Projections, arcogis.com/stories)**

- Elders and Youth: At greatest risk during extreme heat, cold, and storm-related power outages.

- Housing Stock: Older homes lack insulation and weatherization are needed to handle extremes.

- Remote Infrastructure: Roads to rural homes and ceremonial sites may be blocked or impassable during storms.

- Cultural Impact: Drought and heat affect traditional food systems (roots, berries, salmon), ceremonies, and outdoor community events.

- Healthcare Access: Delays during storms may limit access to medical treatment, medications, and emergency support.

Value of Resources at Risk

Extreme weather events pose significant threats to the Nez Perce Reservation's population, economy, infrastructure, and natural systems. While some impacts are difficult to quantify, the consequences are often widespread and long-lasting, particularly across critical sectors such as agriculture, energy, transportation, and housing.

Drought is among the most complex and far-reaching natural hazards affecting the Reservation. Although it rarely causes direct structural damage, prolonged drought conditions can severely reduce crop yields, lower rangeland productivity, and increase wildfire risk. Dryland farming faces limited options for crop diversification, while ranchers often must adapt by modifying grazing practices and relying on costly supplemental feed. Drought also reduces reservoir water levels, limiting the potential for hydroelectric power generation. Though exact financial losses are difficult to calculate, the cumulative impact on agriculture, energy systems, and traditional subsistence practices can be substantial.

Hail events, while typically localized, can cause immediate and costly damage to crops, vehicles, and buildings—particularly roofs, windows, and siding. Agriculture is especially vulnerable, with crop damage varying depending on the timing and severity of the storm. Although many producers carry crop insurance, uninsured losses can still create significant economic hardship. Vehicle damage is also common but often underreported, making it difficult to assess the full financial impacts.

Thunderstorms, windstorms, microbursts, and tornadoes, though infrequent, can cause severe damage to homes, electrical infrastructure, and forested areas. Older structures and remote areas are particularly at risk. High winds can down trees and power lines, disrupt transportation routes, and hinder emergency response efforts. While newer buildings are often constructed with wind resilience in mind, vulnerable segments of the built environment remain exposed.

Severe winter storms bring their own set of challenges, often affecting both property and public safety. Heavy snowfall and ice accumulation can damage buildings, collapse roofs, break utility lines, and isolate communities. Road closures, business interruptions, and delays in emergency services can strain economic activity. Additionally, increased heating demands during prolonged cold events pose financial burdens on households, especially the elderly and those living in remote or substandard housing.

Overall, these extreme weather hazards place essential community assets at risk, potentially hundreds of millions of dollars in damages. Agricultural lands, tribal housing, critical facilities, and transportation networks, along with the economic and cultural systems they support, remain highly vulnerable to both direct and indirect impacts. Mitigation planning must therefore address both immediate threats and long-term resilience across these interdependent sectors.

Hazardous Materials Profiles

Hazard Description and Recent History

Hazardous materials encompass a wide range of substances that pose significant risks to human health and the environment due to their toxic, reactive, corrosive, flammable, radioactive, or infectious properties. These materials can be released from various sources, including:

- **Fixed-site facilities**: Such as refineries, chemical plants, storage facilities, manufacturing units, warehouses, wastewater treatment plants, dry cleaners, automotive repair shops, and gas stations.

- **Transportation incidents**: Including highway and rail transportation (e.g., tanker trucks, chemical trucks, railroad tankers), air transportation (e.g., cargo packages), and pipeline transportation (e.g., liquid petroleum, natural gas, and other chemicals).

The Nez Perce Tribe has implemented regulations and guidelines to manage hazardous materials effectively. The Nez Perce Tribe Contaminated Site Cleanup Guidance outlines procedures for addressing site contamination to protect the Reservation's natural resources, particularly water resources. Additionally, the Tribal Guide for Managing Household Hazardous Wastes provides residents with information on proper storage and disposal of household hazardous materials. **(Nez Perce Tribe Contaminated Site Cleanup Guidance 2009: nptwaterresources.org)**

While specific recent incidents within the Reservation boundaries are not detailed in publicly available sources, the Nez Perce Tribe's Environmental Restoration and Waste Management Program (ERWM) continues to monitor and manage hazardous material risks. **(Nez Perce Tribe ERWM website: nezpercetribeerwm.org)**

Probability of Future Occurrence

The probability of hazardous material incidents within the Nez Perce Reservation remains a concern due to the presence of facilities handling such materials and transportation routes traversing the area. According to the EPA's Toxics Release Inventory (TRI) data, several facilities within the Reservation are permitted to discharge hazardous substances. Transportation corridors, including Highway 95, Highway 12, and railroads, are commonly used for transporting hazardous materials, increasing the risk of incidents, see Table 17 and Figure 19.

According to the EPA's Toxic Release Inventory data and as shown in table 17, the EPA currently regulates 21 facilities within the above 12 communities that are permitted to discharge to water. 39 facilities are also permitted to handle hazardous waste. However, while several of the small, fixed facilities (e.g., body shops) have varying uses of hazardous chemicals, in general these facilities do not pose a significant risk to the Reservation.

In addition to fixed facilities, hazardous material events have the potential to occur along Highway

95, Highway 12, and railroads. The trucks and trains that use these transportation arteries commonly carry a variety of hazardous materials including gasoline, other crude oil derivatives, and other chemicals known to cause human health problems. The Clearwater River and Lapwai Creek are the two waterways most vulnerable to hazardous material transportation incidents.

Given the historical data and the ongoing presence of hazardous materials in both fixed facilities and transportation routes, the likelihood of small-scale hazardous material incidents occurring within the Reservation is estimated to be approximately once every two years. However, comprehensive data on the probability and magnitude of such events from all sources remain limited.

Table 17: EPA-regulated facilities in the incorporated communities within the Reservation boundaries.

Location	Permitted Discharges to Water	Toxic Releases Reported	Hazardous Waste Handler	Active or Archived Superfund	Air Releases Reported
Ahsahka	2	0	2	0	0
Craigmont	1	0	5	0	0
Culdesac	6	0	3	0	0
Ferdinand	1	0	1	0	0
Kamiah	3	1	12	0	4
Kooksia	0	0	0	0	0
Lapwai	4	0	5	0	0
Nez Perce	0	0	1	0	0
Orofino	2	0	7	0	2
Reubens	0	0	2	0	0
Spalding	1	0	1	0	0
Stites	1	0	0	0	0
Source: EPA Environmental Facts Multisystem					

Impacts of Hazardous Materials Release

The release of hazardous materials can have severe consequences for human health, the environment, and the economy. Potential impacts include:

- **Human Health**: Exposure to hazardous substances can lead to acute and chronic health issues, including respiratory problems, skin irritation, neurological effects, and increased risk of cancer.

- **Environmental Damage**: Contamination of soil, water, and air can harm ecosystems, affecting plant and animal life.

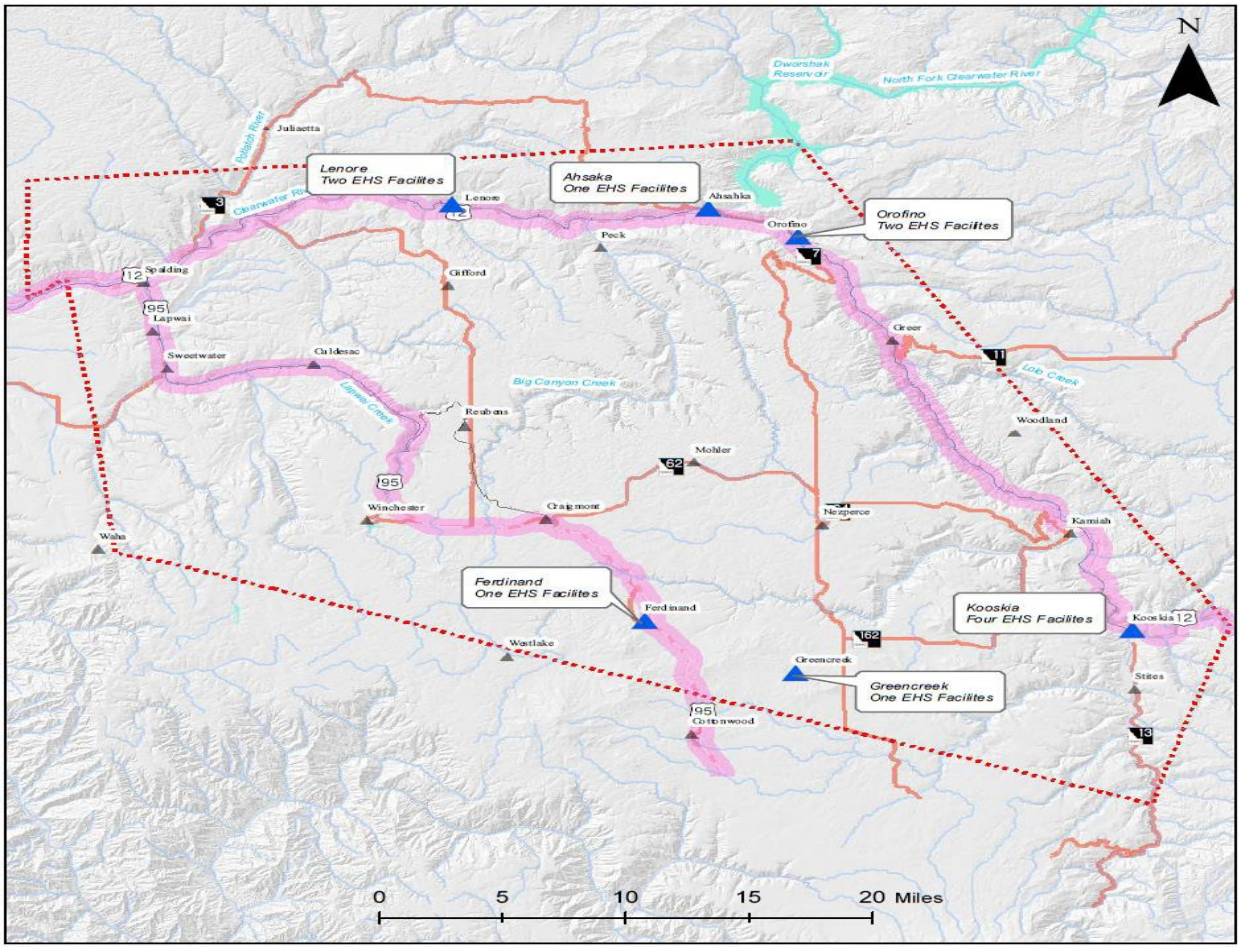
- **Economic Disruption**: Cleanup efforts, healthcare costs, and loss of productivity can have

significant economic implications.

While it is beyond the scope of this HMP to evaluate the probability and magnitude of hazardous material events in the incorporated communities within the Reservation in detail, it is possible to determine the exposure of population, buildings, and critical facilities should such an event occur. Of the facilities that were required to file an annual *EPA Tier II Material Inventory Report* because of the presence of hazardous materials, 11 were identified as having EHSs. The substances recorded at these facilities include common hazardous substances, mainly sulfuric acid. Extremely Hazardous Substances, EHSs, as shown in Figure 19. Areas at risk for hazardous material events include any community that has an EHS facility and any area within a 1-mile radius of Highway 95, Highway 12, and railroads.

The Nez Perce Tribe's Environmental Restoration and Waste Management Program actively works to mitigate these risks through monitoring, regulation, and community education. **(Nez Perce Tribe ERWM website: nezpercetribeerwm.org)**

Figure 19: Environmentally hazardous substance (EHS) facilities and transportation routes on the Nez Perce Reservation.



Value of Resources at Risk

An assessment of the potential impact of hazardous material incidents on the Nez Perce Reservation indicates significant exposure:

- **Population**: Approximately 15% of the tribal population resides within a one-mile radius of facilities handling Extremely Hazardous Substances (EHS), while over 80% live within a one-mile buffer of major transportation routes used for hazardous material transport, see Table 18.

- **Residential Structures**: An estimated one hundred residential buildings (valued at $23.6 million) are within proximity to EHS facilities, and about 322 residential buildings (valued at $90.4 million) are near transportation corridors, see Table 18 and Figure 20.

- **Critical Facilities**: One critical facility (valued at $155,083) is near EHS sites, and all 25 critical facilities (valued at $93.8 million) fall within the transportation buffer zones, see Tables 18 and19, and Figure 20.

Nez Perce Population, Residential Buildings and Structures

Location	Population 1	Residential Buildings	Total # of Structures 2
Lapwai	1,005	193	375
Culdesac	72	19	160
Craigmont	18	5	231
Kamiah	279	49	601
Kooskia	54	13	283
Nezperce	24	8	199
Orofino	113	23	1103
Peck	7	1	89
Reubens	0	0	-
Stites	17	4	105
Winchester	25	7	165
Total	**1,614**	**322**	**3311**

Table 18: Nez Perce Tribe Estimated Population and Residential Building Inventory
Source: Nez Perce Tribe, U.S. Census

1 The estimated population may include Native Americans that are not members of the Nez Perce Tribe

2 Total number of structures at the time of this plan update. Data was not available for some towns/communities.

Residential Structures

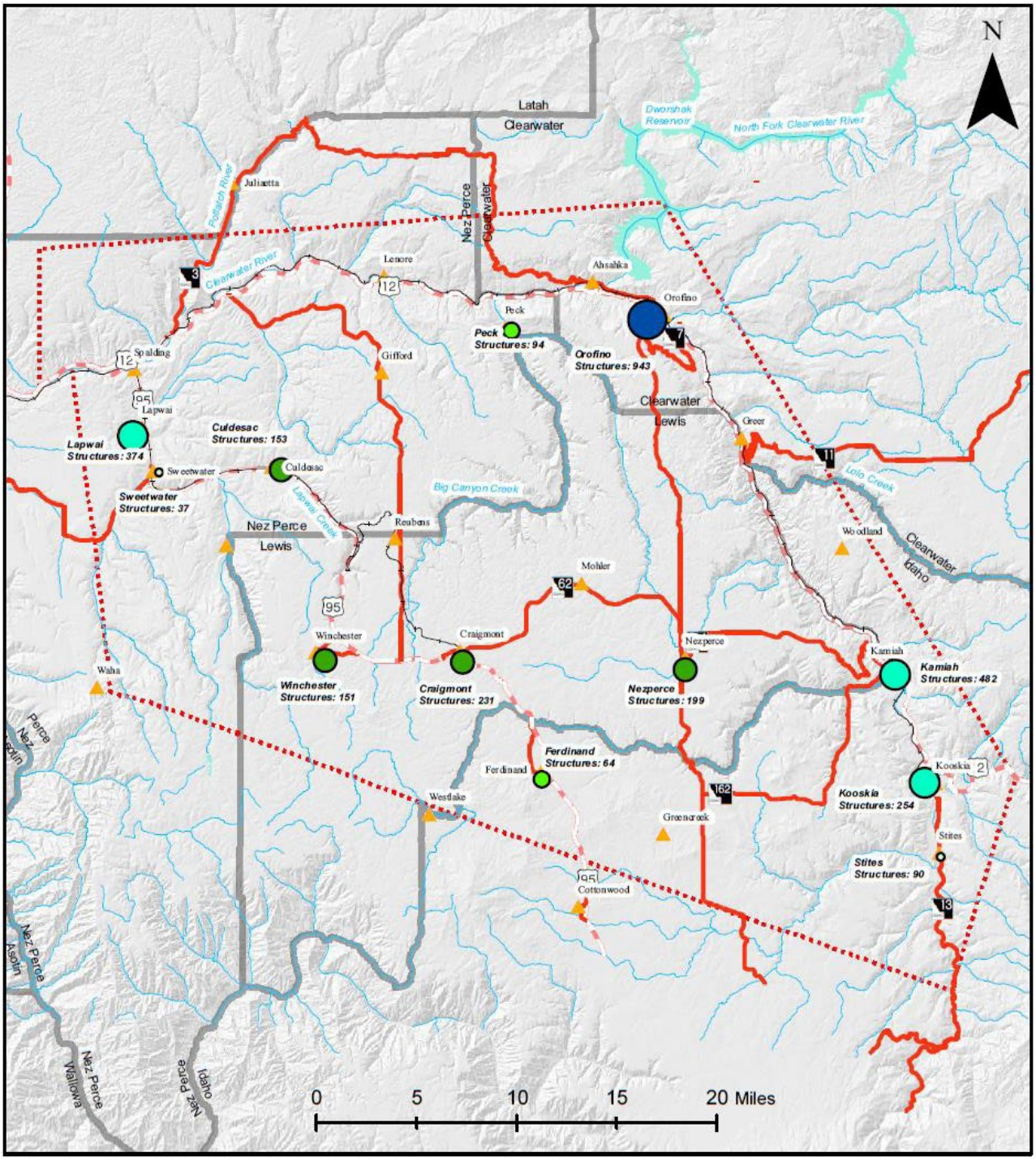


Figure 20: Map of communities and cities and total number of structures for select communities and cities on the Nez Perce Reservation.

Critical Infrastructure

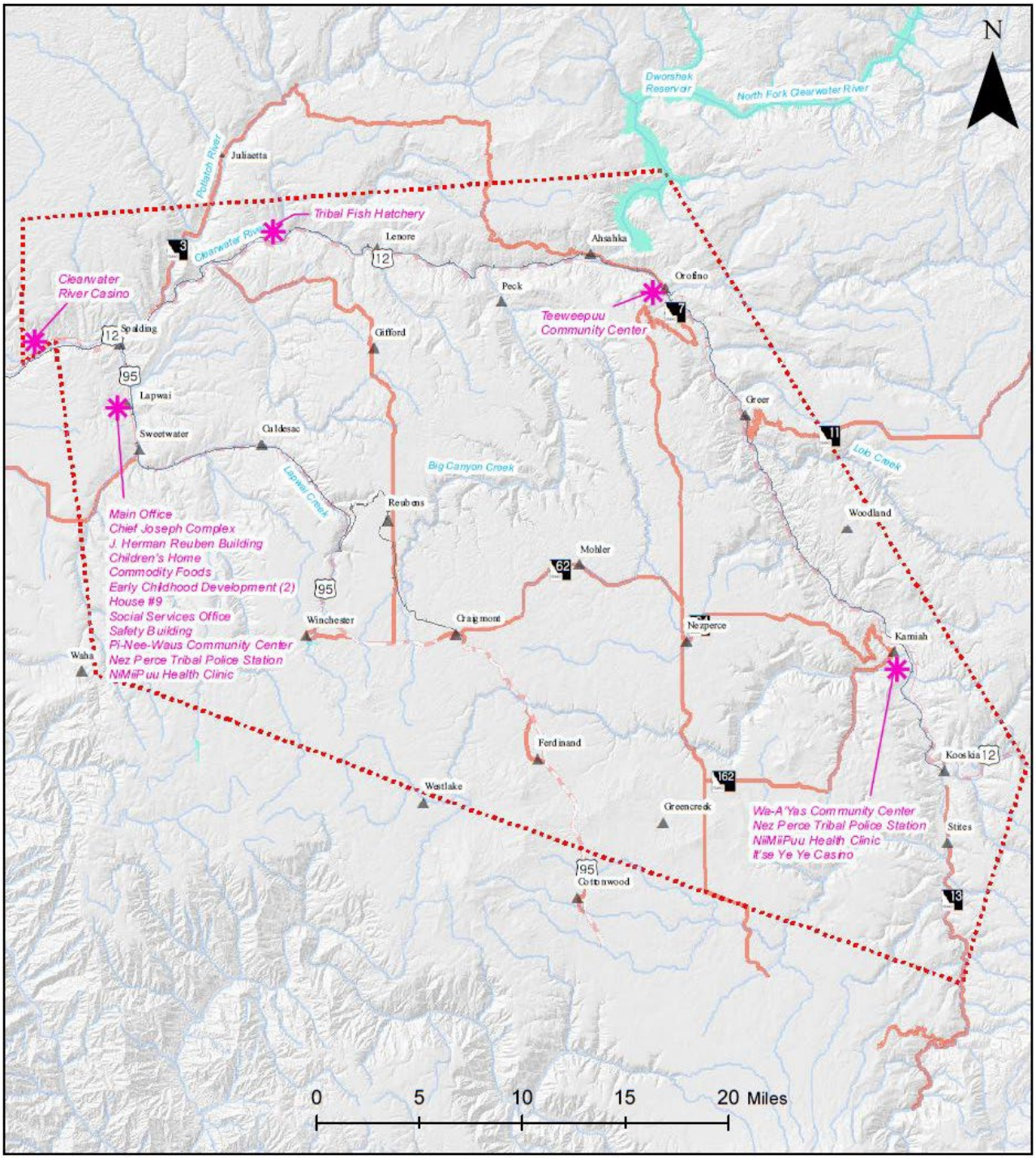


Figure 21: Map of critical infrastructure on the Nez Perce Reservation.

Table 19: Nez Perce Tribe critical infrastructure as identified in the 2009 Nez Perce Reservation HMP and estimated 2009 values inflated to 2024 dollars.

Category	Facility	Location	2019 Estimated Value	2025 Estimated Value
Tribal Offices and Facilities	Main Office	Lapwai	$2,265,800	$2,923,344
	Chief Joseph Complex	Lapwai	$1,851,000	$2,388,168
	J. Herman Reuben Building	Lapwai	$406,100	$523,952
	Children's Home	Lapwai	$150,600	$191,305
	Commodity Foods	Lapwai	$768,100	$991,006
	Early Childhood Development	Lapwai	$82,100	$105,926
	Early Childhood Development	Lapwai	$82,100	$105,926
	House #9	Lapwai	$82,100	$105,926
	Assisted Living Facility	Lapwai	N/A	$7,500,000
	Senior Living Center	Lapwai	N/A	$5,393,279
	Social Services Office	Lapwai	$106,500	$137,407
	Safety Building	Lapwai	$51,600	$66,575
	Tribal Fish Hatchery	Near Lenore	$5,814,800	$7,502,278
Gathering Places and Community Center	Teweepuu Community Center	Orofino	$120,200	$155,083
	Wa-A'Yas Community Center	Kamiah	$2,862,000	$3,692,564
	Pi-Nee-Waus Community Center	Lapwai	$2,265,000	$2,922,312
Police and Fire Stations	Nez Perce Tribal Police Station	Lapwai	$1,369,400	$2,522,464
	Nez Perce Tribal Police Station	Kamiah	$2,862,000	$3,692,564
Health Clinics	NiMiiPuu Health Clinic	Lapwai	$7,079,800	$9,134,386
	NiMiiPuu Health Clinic	Kamiah	$1,699,146	$2,192,245
Enterprises	CRC & Resort Hotel	Ahtway	$25,272,000	$32,606,086
	CRC Events Center	Ahtway	$3,114,189	$4,017,939
	Nez Perce Express	Ahtway	$2,176,785	$2,808,497
	Camas Express	Winchester	$594,360	$766,846
	It'se Ye Ye Casino	Kamiah	$1,093,950	$1,411,419
Total			**$62,169,630**	**$93,857,497**

US Bureau of Labor and Statistics, Consumer Price Index, Inflation Calculator
General Council Report, Nez Perce Tribal Housing Authority May 4-6, 2023
2022 Nez Perce Tribal Executive Committee: Jun 23, 2022 — "upstairs portion of the police station project in the amount of $755,659.00 "

Cultural and Sacred Sites

Requirement §201.7(c)(2)(ii)(D): The plan should describe vulnerability in terms of cultural and sacred sites that are significant, even if they cannot be valued in monetary terms. An inventory of historic and culturally significant properties is maintained by the Nez Perce Tribal Historic Preservation Office and is not included in this plan. However, Tribal historic and culturally significant sites on the Reservation which are part of Nez Perce National Historic Park have been identified as follows and in Figure B-13, Nez Perce National Historic Park. In addition, their associated hazard risks are discussed.

- **Nez Perce National Historic Trail**: The Nez Perce National Historic Trail stretches from Wallowa Lake, Oregon, to the Bear Paw Battlefield near Chinook, Montana, crossing the southeastern portion of the Nez Perce Reservation. Forced to abandon hopes for a peaceful move to the Lapwai reservation, the Nez Perce chiefs saw flight to Canada as their last promise for peace. This route was used in its entirety only once; however, component trails and roads that made up the route bore generations of use prior to and after the 1877 flight of the nontreaty Nez Perce. Within the Nez Perce Reservation, the trail is vulnerable to floods, landslides, and wildland fires.

- **Coyote's Fishnet**: Historical marker located in the Spalding area that commemorates the legend of Coyote and Black Bear's argument whereby Coyote threw his fishing net on a hill and tossed Black Bear to another and turned him into stone. The Spalding area is vulnerable to dam failure inundation and flooding.

- **Ant and Yellowjacket**: Historical marker located in the Spalding area that commemorates the legend of Ant and Yellowjacket's argument whereby Coyote turned them into a stone arch. The Spalding area is vulnerable to dam failure inundation and flooding.

Pandemic/Disease Profile

Pandemics and infectious disease outbreaks present significant public health threats by disrupting daily life, impairing healthcare provision, and disproportionately affecting medically vulnerable populations. For tribal communities like the Nez Perce, historical and contemporary experiences highlight the importance of integrating disease preparedness into hazard mitigation planning. This profile focuses on preparedness, response, and resilience in the face of future outbreaks.

History

- **Pre-COVID Context**

Historically, many Native American communities suffered from higher rates of communicable diseases due to limited healthcare access and infrastructure disparities (Nez Perce Tribe Health Programs, ongoing; CDC, 2022). These structural vulnerabilities heightened the impacts of disease outbreaks long before COVID-19.

- **COVID-19 in 2020**
    - On March 18, 2020, the Nez Perce Tribe declared a public health emergency and activated Tribal Emergency Operations Command in response to the emerging COVID-19 threat. **(Nez Perce Tribe Declares Public Health Emergency, March 18, 2020)**
    - A Stay-at-Home Order was issued on March 27, 2020, including overnight curfews, restrictions on gatherings (including cultural events), and targeted protections for elders and individuals with pre-existing conditions. **(COVID-19 Stay-at-Home Order Issued March 27, 2020)**
    - The Nez Perce Tribe partnered with the Idaho National Guard to run vaccination clinics and support overwhelmed medical facilities later in 2021. **(COVID-19 Vaccination & National Guard Support (Nov 2021)**
    - Culturally integrated communication was key: Nimiipuu Health utilized tribe-specific messages, led by familiar tribal medical staff, contributing to higher vaccination rates compared to other groups. **(Centers for Disease Control and Prevention (CDC). (2022). COVID-19 and Native American Health Disparities: Native American Risk Perception Study; Tribal Vaccination Response)**
    - In Nez Perce County, as of July 23, 2023, cumulative COVID-19 cases reached 10,721 and deaths 163. **(Nez Perce County COVID-19 case & death data as of July 23, 2023)**

Probability of Future Occurrence

Pandemics—driven by novel or re-emerging pathogens—remain a high-probability hazard. Globalization, climate change, and zoonotic spillover events continue to increase outbreak risks. For the Nez Perce Tribe, tribal sovereignty, strong health communication infrastructure, and Tribal Emergency Operations capabilities enhance readiness. Continued investment in these systems is crucial to mitigate future disease impacts.

Vulnerable Areas and Infrastructure

Area / Infrastructure	Risks & Impacts
Elders & Multigenerational Homes	Higher disease susceptibility and potential for rapid spread.
Healthcare Facilities (Nimiipuu Health clinics in Lapwai & Kamiah)	Potential overcapacity during peaks; critical for response and vaccination efforts.
Schools & Childcare Centers	Hubs for transmission and community disruption due to closures.
Emergency Operations Center (EOC)	Essential for coordinated pandemic response; needs redundancy and back-up systems.
Cultural & Gathering Spaces	Event cancellations weaken community cohesion; require alternate communication strategies.
Transportation & Supply Networks	Disruptions affect access to medical care and essential goods.
Communications & Data Systems	Tribal-specific data sovereignty is vital for informed response; shortcomings during COVID-19 impeded decision-making.

Table 20: Tribal Data Sovereignty Importance in Pandemic Response

Cybersecurity Profile

Cybersecurity has become an increasingly critical element of hazard mitigation planning as the Nez Perce Tribe, like all modern governments, relies on digital systems for communication, emergency services, healthcare, utility management, and administrative operations. The growing frequency and sophistication of cyber threats, including ransomware, data breaches, and denial-of-service attacks, pose significant risks to confidentiality, integrity, and availability of information and critical infrastructure. A strong cybersecurity posture is essential to maintain continuity of operations and safeguard tribal sovereignty.

History of Cybersecurity Threats and Events

While not publicly reported cyberattacks have directly targeted the Nez Perce Tribe to date, incidents across tribal governments nationwide demonstrate growing vulnerability. In 2021, a ransomware attack impacted the Blackfeet Nation in Montana, paralyzing their health department systems. **(Graham, J. Tribal Nations Face Rising Cyber Threats. Indian Country Today. https://ictnews.org/news/tribal-nations-cyber-threats Graham, 2021)**. Similarly, in 2022, the tribal government of the Eastern Band of Cherokee Indians reported attempted intrusions into financial and personnel data systems**. (NCAI. Cybersecurity Concerns in Indian Country. National Congress of American Indians. https://www.ncai.org/policy-issues/cybersecurity, 2022.)** According to the FBI's 2023 Internet Crime Report, ransomware incidents against U.S. government entities—including tribal organizations—continue to rise, with over 2,385 complaints and estimated losses exceeding $59 million in 2023 alone. **(FBI. 2024, Internet Crime Report 2023. Federal Bureau of Investigation. https://www.ic3.gov/Media/PDF/AnnualReport/2023_IC3Report.pdf)**

Probability of Future Occurrence

Given the increasing reliance on digital infrastructure, coupled with the rise in attacks targeting governmental and tribal entities, the probability of a cyber incident impacting the Nez Perce Tribe is considered high. The FBI and Cybersecurity and Infrastructure Security Agency (CISA) continue to warn that cyber adversaries are actively targeting public sector systems, especially those with limited resources for cyber defense. **(CISA. 2023. Joint Cybersecurity Advisory: Understanding and Mitigating Russian State-Sponsored Cyber Threats to U.S. Critical Infrastructure. Cybersecurity and Infrastructure Security Agency. https://www.cisa.gov/news-events/alerts/2023/01/11CISA, 2023)** Trends suggest that if preventative measures are not enhanced, future breaches, data theft, or service interruptions are likely.

Vulnerable Areas and Infrastructure

Several key areas of tribal infrastructure are vulnerable to cyber threats, including:

- Tribal Government Administration: Personnel records, financial systems, and legal documentation systems.
- Emergency Services: Dispatch systems, radio communication, and incident management software.
- Healthcare Services: Patient records, telemedicine platforms, and medical equipment networks.
- Utilities: Supervisory Control and Data Acquisition (SCADA) systems for water and electricity.
- Education Systems: Online learning platforms and student information databases.
- Public Communication: Websites, email systems, and social media accounts used for public outreach.

Without updated firewalls, endpoint protection, staff training, and incident response protocols, these systems remain at heightened risk of exploitation or disruption. A single compromised system can cascade through other interdependent services, magnifying damage **(CISA, 2023).**

Chapter 5

Mitigation Strategy

All risk assessments were made based on the conditions existing during August 2024 through May 2025; thus, the recommendations in this section have been made in light of those conditions. However, the components of risk and the preparedness of the Tribe's resources are not static. It will be necessary to fine-tune this plan's recommendations annually to adjust for changes in the components of risk, population density changes, infrastructure modifications, and other factors.

Mitigation Goals

Requirement §201.7(c)(3)(i): *The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*

Mitigation goals are defined as general guidelines that explain what the Tribe wants to achieve in terms of hazard and loss prevention. Goal statements are typically long-range, policy-oriented statements that guide the development of specific mitigation actions. They represent community-wide aspirations for increased safety, resilience, and sustainability.

Priority	Description
1	Promote disaster-resistant development and infrastructure.
2	Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.
3	Reduce the potential damage and losses caused by wildfires and related smoke.
4	Minimize flood risks and address vulnerabilities associated with dam or levee breaches.
5	Strengthen resilience to extreme weather events and their impacts.
6.	Address vulnerabilities related to geological hazards such as landslides, and volcanic eruptions.
7	Reduce the risk of damage and loss caused by hazardous materials, particularly transportation-related spills.
8	Enhance public health preparedness to limit the impacts of pandemics or disease outbreaks.
9	Safeguard critical infrastructure and data systems against cybersecurity threats and disruptions to digital communications.

Table 21: Mitigation Goals for the Nez Perce Reservation HMP.

Mechanisms to Incorporate Mitigation Strategies

The Nez Perce Tribe encourages the philosophy of instilling disaster resilience in normal day-to-day operations. By implementing planned activities through existing programs and resources, the cost of mitigation is often a small portion of the overall cost of a project's design or program. Through their resolution of adoption as well as their participation on the Steering Committee, each jurisdiction is aware of and committed to incorporating the risk assessments and mitigation strategies contained herein. It is anticipated that the research, local knowledge, and documentation of hazard conditions coalesced in this document will serve as a tool for decision-makers as new policies, plans, and projects are evaluated.

There are several planning processes and mechanisms for the Tribe that will either use the risk assessment information presented in this document to inform decisions or will integrate the mitigation strategy directly into capital improvements, infrastructure enhancements, training projects, prevention campaigns, and land use and development plans.

Development of Mitigation Action Items

Requirement §201.7(c)(3)(ii): *A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*

This section outlines an integrated schedule of action items designed to reduce risk and prevent the loss of life, property, and critical infrastructure. Where possible, these actions should be incorporated into existing Tribal programs, policies, and operations to enhance day-to-day disaster resilience. Implementation should be guided not only by the findings of this updated Hazard Mitigation Plan (HMP), but also by local knowledge of hazard conditions, traditional ecological knowledge, and the lived experience of Tribal members.

Questions to Consider When Evaluating Mitigation Actions:

- Is the hazard addressed by this action identified as a vulnerability in the HMP Risk Assessment?
- What are the most immediate mitigation needs for the Tribe?
- Is the proposed action consistent with existing Tribal documents, policies, laws, or code?
- Does the action directly support one or more mitigation goals identified in this plan?
- Is the action economically feasible? What funding sources or cost-sharing options exist?
- Is the action culturally appropriate and environmentally responsible?

- Is there political will and public support to implement the action and ensure its success?
- Can this action enforce or enhance existing mitigation strategies?

Through this evaluation process, the Steering Committee identified mitigation actions to be included in the 2025 HMP plan update. The table of action items includes a description of each action item and associated administrative information, including which departments or agencies will be responsible, potential cost of implementation, and time frame for completion.

Categorization of Mitigation Action Items

This section provides a brief overview of how the different fields in the MAI table were populated and the criteria used to assign ratings and values.

- **Priority:** All action items were prioritized by Tribal department representatives based on goals, feasibility, cost, and impact. The advisory group assigned a rating of **LOW, MEDIUM, or HIGH**, considering immediate needs, benefits, funding availability, and strategies in other documents. The numerical labeling in the "MAI #" column does not imply priority.

- **Time Frame:** An estimation was made regarding the number of years required to fully implement and complete each project. The number of years does not reflect when the project will be completed as that is dependent on the availability of funding and other resources.

- **Lead Agency:** The agencies listed in the table are responsible for the implementation, status update, and closing out of the respective action item.

- **Cost:** Since the exact cost of each project is unknown, a cost-rating of **LOW, MEDIUM, and/or HIGH** was assigned to each action item. These ranges were taken from Worksheet 7 in the Tribal Mitigation Planning Handbook and are as follows:
    - Low: $0 to $25,000
    - Medium: $25,000 to $100,000
    - High: $100,000 or more

Process to Monitor and Evaluate Mitigation Action Items

As part of the annual review process, the Steering Committee will update the status of mitigation projects and identify any projects that could potentially be funded through grants. New projects

not included in the plan will be noted and opportunities to accomplish projects through other planning mechanisms will also be identified.

The status of any completed projects will also be updated to reflect when the project was completed and if it was or is yet to be officially "closed out" by the responsible agency. The list of MAI's will be fully revised during the next five-year update of the plan.

Information and resources that can be used for the annual review can be found in Appendix 2.

Project Start-up and Closeout Procedures

After the adoption of the 2025 HMP by the Tribe, the Tribe's Emergency Management Planner (EM) and Tribal Emergency Response Planning Team (TERPT) will continue to monitor, evaluate and update the plan. Additionally, the EM and representatives of the TERPT will be responsible for monitoring and implementing assigned mitigation activities from the HMP and will report project-status changes at monthly TERPT meetings. The Tribe will also apprise the public about the HMP and hazards that affect the Tribe through various platforms and outreach efforts.

In the interest of facilitating grant-funded projects on the Reservation, the Tribe's day-to-day operations include researching grant opportunities, developing applications, routing them through a carefully developed practice including, the originator, the program manager, the program department director, the finance department head, the Tribe's legal department and the Executive Director. Once the application passes the routing procedure it is submitted to the Tribal Council and if they approve it, it is sent to the funding entity. Copies of the application are kept at the program/department and finance department. When the application is chosen for funding, an award document is processed internally and submitted to the Chairman for approval. Funds can be directly transmitted to the Tribe or are collected by the Tribe on a reimbursement basis. Finance staff works with the department managing the grant/project to ensure close out reports and all required narrative reports are sent to the funding entity, according to their terms. Financial reports and drawdowns are completed by the Tribe's Finance department.

2025 Mitigation Action Items

Requirement §201.7(c)(3)(ii): [The mitigation strategy shall include] a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

MAI # 1: Promote disaster-resistant development and infrastructure.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
1.A	Develop a comprehensive/general plan that addresses natural and human-made hazards.	**High**	2 years	EM, Natural Resources, PD	Medium	
1.B	Expand the Tribal Building Code to include residential structures and the inspection and enforcement of the codes. Incorporate climate change considerations.	**Medium**	4 years	NPTEC, Housing, Maintenance	Low	FYI - A uniform building code was adopted but it only applies to commercial buildings. Consider in-line fire suppression.
1.C	Incorporate hazard-prone areas into land use planning. Explore the need for hazard zoning and high-risk land use ordinances.	**Medium**	2 years	EM, Land, GIS, Housing	Low	
1.D	Develop educational materials to promote safety and reduce hazard risk across departments and public outreach efforts.	**High**	1 year	EM, Safety, Fire, Water Resources, Air Quality	Low	
1.E	Integrate mitigation strategies and planned infrastructure projects across departments.	**Medium**	5 years	All Departments	low	
1.F	Designate and equip emergency gathering locations for Tribal members with supplies for extended emergencies.	**Medium**	5 years	EM, Safety, GIS, Air Quality	Medium to High	
1.G	Ensure all Tribal anchor institutions (e.g., schools, clinics, administration buildings) have continuity and emergency plans in place.	**High**	5 years	All Departments		

MAI # 2: Build and support local capacity to enable the public to prepare for, respond to and be more resilient from disasters.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
2.A	Enhance data collection, risk analysis, and technical studies on natural resources. Provide information via interactive online maps.	**High**	Ongoing	EM, GIS, All departments	low	
2.B	Develop a mitigation outreach program to assist Tribal members in preparing for disasters, including creating emergency evacuation plans for areas identified as hazard prone.	**High**	2 years	EM, Safety, Fire, PD, All Departments	low	
2C	Formulate a comprehensive strategy and secure funding for backup electrical and telecommunications infrastructure at Tribal critical facilities.	**Medium**	3 years	IT, EM, PD	High	
2.D	Maintain and fund Community Emergency Response Team (CERT) programs and expand them to include mitigation strategies.	**High**	Now	EM, Water Resources, Fisheries	Medium	CERT is currently operational but may need additional funding.
2.E	Inventory and map culturally significant sites for inclusion in hazard mitigation and disaster response planning.	**High**	1 year	Cultural, EM, GIS, PD, Fire	Low	

MAI # 3: Mitigate the potential damage and losses caused by wildfires and related smoke.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
3.A	Maintain existing fuel management programs, explore new fuel management methodologies, and strengthen fire mutual aid initiatives.	**High**	Ongoing	Fire, Forestry	Medium to High	
3.B	Develop defensible space guidelines and provide funding or incentives to support maintenance by landowners.	**High**	Ongoing	NPTEC, ED, Fire, Forestry, Finance	Low to High	
3.C	Assess the location of fire stations relative to hazard zones. Retrofit or relocate as needed.	**Low**	5 years	Fire, EM, GIS	Low to High	
3.D	Inventory existing water storage systems and firefighting capacity.	**High**	3 years	Fire, Water Resources, PD, Maintenance	Low	
3.E	If deemed necessary, secure funding and install fire-suppression wells.	**High**	5 years	EM, Fire		
3.F	Continue to maintain and operate a robust air quality monitoring network. Provide timely notification to the public regarding health impacts of smoke.	**High**	Ongoing	Air Quality	High	
3.G	Maintain a cache of household indoor air filtration units. Provide "Smoke Ready" education and outreach.	**High**	1 year	Air Quality, EM, Health, Safety	Low to High	
3H	Create a network of clean air spaces in each reservation community.	**High**	2 years	EM, Air Quality, Housing, ED, Public Library System, Youth Centers	High	AQ has received a *Wildfire Smoke in Community Buildings Grant* to complete work.

MAI # 4: Mitigate the potential for flood damage and losses, as well as reduce the risks associated with dam or levee breaches.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
4.A	Join the National Flood Insurance Program or participate through a collaborative agreement with the four Idaho counties that intersect within the Reservation's boundaries.	**High**	5 years	NPTEC, ED, Safety, EM, Water Resources	Low to Medium	
4.B	Map and document flood-prone areas. Explore mitigation options and implement best management practices to reduce flood risk.	**Medium**	4 years	EM, GIS, Land, PD, Water Resources	Medium to High	
4.C	Conduct community flood preparedness drills and integrate real-time flood level data into public alert systems.	**High**	2 years	ED, EM, Land, Safety, Water Resources	Low to Medium	
4.D	Evaluate all levees within the Reservation for potential FEMA certification and associated mitigation opportunities.	**High**	4 years	EM, ED, GIS, Water Resources, Land Safety	High	
4.E	Identify site-specific flood mitigation needs and procure funding.	**High**	5 years	EM, ED, GIS, Water Resources, Land Safety	High	

MAI # 5: Mitigate the potential risks of damage and losses due to extreme weather events.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
5.A	Promote the use of durable building materials for extreme weather and incorporate underground utilities into building codes.	**Medium**	3 years	NPTEC, Utilities, Housing, Maintenance, ED	Low	
5.B	Ensure that all critical facilities carry comprehensive insurance for extreme weather events and apply best practices for infrastructure protection.	**High**	1 year	Finance, Safety, EM	Low	
5.C	Map structural vulnerability and identify trees that pose risks to buildings and powerlines. Implement prioritized removals.	**Medium**	2 years	Fire, Forestry, Utilities	Low to Medium	
5.D	Develop a coordinated rescue operation plan for weather-related emergencies.	**High**	2 years	PD, EM	Low	
5.E	Create and enforce a water conservation ordinance with clearly defined penalties for non-compliance.	**Low**	2 years	Water Resources, Housing, EM	Low	
5.F	Create an educational program that focuses on conservation techniques. Offer incentives and technical assistance to help Tribal members adopt water-saving practices.	**Medium**	3 years	Water Resources, Housing, EM	Low	
5.G	Expand the Tribe's source-water assessment and protection initiatives to improve resilience to extreme weather and drought.	**Medium**	3 years	Water Resources	Low	

MAI #6: Mitigate the potential for damage and loss resulting from geological hazards.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
6.A	Create a comprehensive geologic map identifying hazard-prone areas. Use mapping to guide and limit future development in high-risk zones.	**Medium**	2 years	EM, GIS, ID, Housing, ED, Land Services	Medium	
6.B	Equip emergency vehicles and department fleets with tools and resources necessary to respond to geologic hazards (e.g., landslides, earthquakes).	**Medium**	2 years	PD, FD, all department vehicles involved in EM	Low to Medium	
6.C	Develop communication protocols for informing the public about geologic hazard risks and impacts on infrastructure and property.	**Low**	4 years	EM, ED, NPTEC, Forestry	Low	

MAI # 7: Mitigate the risk of damage and loss caused by Hazardous Materials.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
7.A	Identify and map hazardous material storage sites located within Reservation boundaries.	low	2 years	EM, ED, GIS	low	
7.B	Document and assess hazardous materials transported through the Reservation, with emphasis on proximity to waterways and sensitive areas.	low	2 years	EM, ED, GIS	low	WRD completed a Hazardous Commodity Flow Study for the Reservation.
7.C	If deemed necessary, adopt mitigation strategies or ordinances.	low	4 years	EM, ED, GIS	low	

MAI # 8: Mitigate the risk of damage and losses resulting from a pandemic or disease.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
8.A	Determine the equipment, supplies, and infrastructure needed to provide sufficient treatment capacity during a public health emergency.	Medium	4 years	Nimiipuu Health	High	
8.B	Develop operational strategies, protocols, and training programs to support Tribal health professionals during a disease outbreak.	Medium	3 years	Nimiipuu Health	Low	
8.C	Address public health outreach, education, and access to resources before and during public health emergencies.	Medium	2 years	Nimiipuu Health	Low	

MAI # 9 Safeguard critical infrastructure and data systems against cybersecurity threats and disruptions to digital communications.

	Description	Priority	Time Frame	Lead Agency	Cost	Status
9.A	Conduct a Tribal Cybersecurity Risk Assessment to identify vulnerabilities in the Tribe's digital systems and critical infrastructure.	High	1 to 2 years	IT, EM, Police	Low	
9.B	Develop and Implement a Tribal Cybersecurity Policy to establish a formal framework for cybersecurity practices across departments.	High	1 to 3 years	IT, EM, Police	Low	
9.C	Establish a Cybersecurity Awareness & Training Program to reduce human error—one of the largest sources of cybersecurity breaches.	High	1 to 4 years	IT, EM, Police	Medium to High	

Capability Assessment

Requirement §201.7(c)(3)(iv): [The mitigation strategy shall include] a discussion of the Indian 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, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas.

The Tribe currently supports pre- and post- disaster hazard mitigation through its regulations, plans, and programs. Tribal mitigation policies include a forest fire protection ordinance, burn permits, and mutual aid agreements. Mitigation planning includes a hazard mitigation administration plan and an emergency operations plan. In addition, the Tribe participates in several hazard mitigation programs including a fuel management program, a wildfire outreach program, and a GIS-based hazard mapping program.

Since 2006, the Tribe has not implemented any new pre- or post-disaster regulations, plans, or programs but continues to enforce its existing regulations, plans, and programs. The hazard management capabilities of the Tribe have improved with the hiring of a full time Emergency Management Coordinator and nineteen ICS and NIMS trainings for Emergency Operations Center and Emergency Response personnel. Table 19 summarizes the Tribe's hazard mitigation legal and regulatory capabilities.

Table 22: Legal and Regulatory Resources Available for Hazard Mitigation

Type of Mitigation	Regulatory Tool	Name/Type	Evaluation of Regulatory Tool on Hazard Mitigation
Pre-Disaster Mitigation	Plans	Hazard Mitigation Administration Plan	The purpose of this plan is to establish the management procedures that the Tribe will use for the administration of the HMGP. It outlines management, financial, and administrative procedures for implementing the HMGP.
		Geographic Response Plan	Engages the region's partnerships and regulatory agencies of the Clearwater, Snake River, and Columbia River Basin Corridors to collaborate on emergency responses to toxic releases into the waterways.
		FOG	Field Operations Guide for frequencies to first responders.
	Polices	Forest Protection Fire Ordinance	This ordinance is designed to limit fires by regulating the use of materials that can cause wildland fires, such as the proper use of campfires, the disposal or use of ignited substances, and the use of instruments such as chainsaws that need spark protectors.

Type of Mitigation	Regulatory Tool	Name/Type	Evaluation of Regulatory Tool on Hazard Mitigation
		Water and Waste Management Ordinance	Brownfields assessment and underground storage tanks are identified and tracked throughout the Tribe's Environmental Protection Agency compliance of identifying and potential removal of toxic releases.
		Burn Permits	This policy is currently used to limit burning during bad air quality days. However, it could be used to limit burning during the summer and autumn, when the Reservation is most susceptible to wildland fires.
	Programs	Geographical Information Systems	The Land Services Program GIS-database contains land cover and hazard information for the Tribe. This information is useful for identifying hazard-prone areas and areas of current and future development.
		Forest Department Fuel Management Program	The Forestry Department participates in fuel management for wildland fire hazard areas on the Reservation. This program reduces fuel load and therefore wildland fire potential.
		Student Conservation Association Program	The Student Conservation Association conducts wildland urban interface outreach and fuel management programs. This program educates the public about wildland fires. In addition, it reduces fuel load and therefore wildland fire potential.
		Water Resources Groundwater	This program oversees the Hazardous Environmental Response Team to respond to toxic releases.
Post-Disaster Mitigation	Plans	Emergency Operations Plan	This document is a compliant National Incident Management System. This system standardizes incident management and response to human-made and natural hazards.
	Policies	Mutual Aid Agreements	Mutual Aid Agreement with Lapwai Fire Department. Mutual Aid for firefighting includes fire responders and their equipment. Mutual Aid ensures the efficient utilization of all available resources needed to mitigate an extraordinary event.
Development in Hazard-Prone Areas	Policies	Nez Perce Tribal Commercial Building Code	Enforces the Uniform Building Code for commercial buildings only. Structures built to code are less likely to be vulnerable to hazardous conditions, including windstorms, wildland fires, etc.

Funding Sources

Requirement §201.7(c)(3)(v): [The mitigation strategy shall include an] identification of current and potential sources of Federal, Tribal, or private funding to implement mitigation activities.

The fiscal capability assessment lists the specific financial and budgetary tools that are currently available, as well as potentially available, to the Tribe for hazard mitigation actions. These capabilities, which are listed in Table 23, include Federal entitlements.

Table 23: Financial Resources for Hazard Mitigation

Type	Sub-Type	Administrator	Purpose	Amount/Availability
Federal	Hazard Mitigation Grant Program	Federal Emergency Management Agency (FEMA)	Supports pre- and post-disaster mitigation plans and projects	Available to communities after a Presidentially Declared Disaster has occurred. Grant award based on specific projects as they are identified
	Pre-Disaster Mitigation Grant Program	FEMA	Supports pre-disaster mitigation plans and projects	Available on an annual basis as a nationally competitive grant. Grant award based on specific projects as they are identified
Federal (cont'd.)	Assistance to Firefighters Grant Program	FEMA/ U.S. Fire Adminis tration	Provides equipment, protective gear, emergency vehicles, training, and other resources needed to protect the public and emergency personnel from fire and related hazards	Available to fire departments and non-affiliated emergency medical services. Grant award based on specific projects as they are identified
	Community Block Grant Program (CBGP) Entitlement Communities Grants	U.S. Department of Housing and Urban Development (USHUD)	Acquisitions of real property, relocation/demolition, rehabilitation of residential and non-residential structures, construction of public facilities, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes	Available to entitled communities. Grant award based on specific projects as they are identified

Federal (cont'd.)	**Indian Community Development Block Grant Program**	**USHUD**	Provides critical housing and community development resources to aid disaster recovery	Available to entitled Tribes. Grant award based on specific projects as they are identified
	Imminent Threat, Indian Community Development Block Grant Program	USHUD	Alleviates or removes imminent threats to health or safety (e.g., drought)	Available to entitled Tribes. Grant award based on specific projects as they are identified
	Indian Reservation Roads Transportation Funding	Federal Highway Administration	Constructs and improves roads, bridges, and transit facilities leading to, and within, Indian Reservations or other Indian lands to provide safe access through hazard-prone areas	Available to entitled Tribes. Grant award based on specific projects as they are identified
	Administration for Native Americans Grant Programs	U.S. Department of Health and Human Services	Funds a variety of environmental management programs, including the identification and assessment of human-caused and natural hazards and their associated risks and the development and implementation of plans, policies, and ordinances	Available to entitled Tribes. Grant award based on specific projects as they are identified

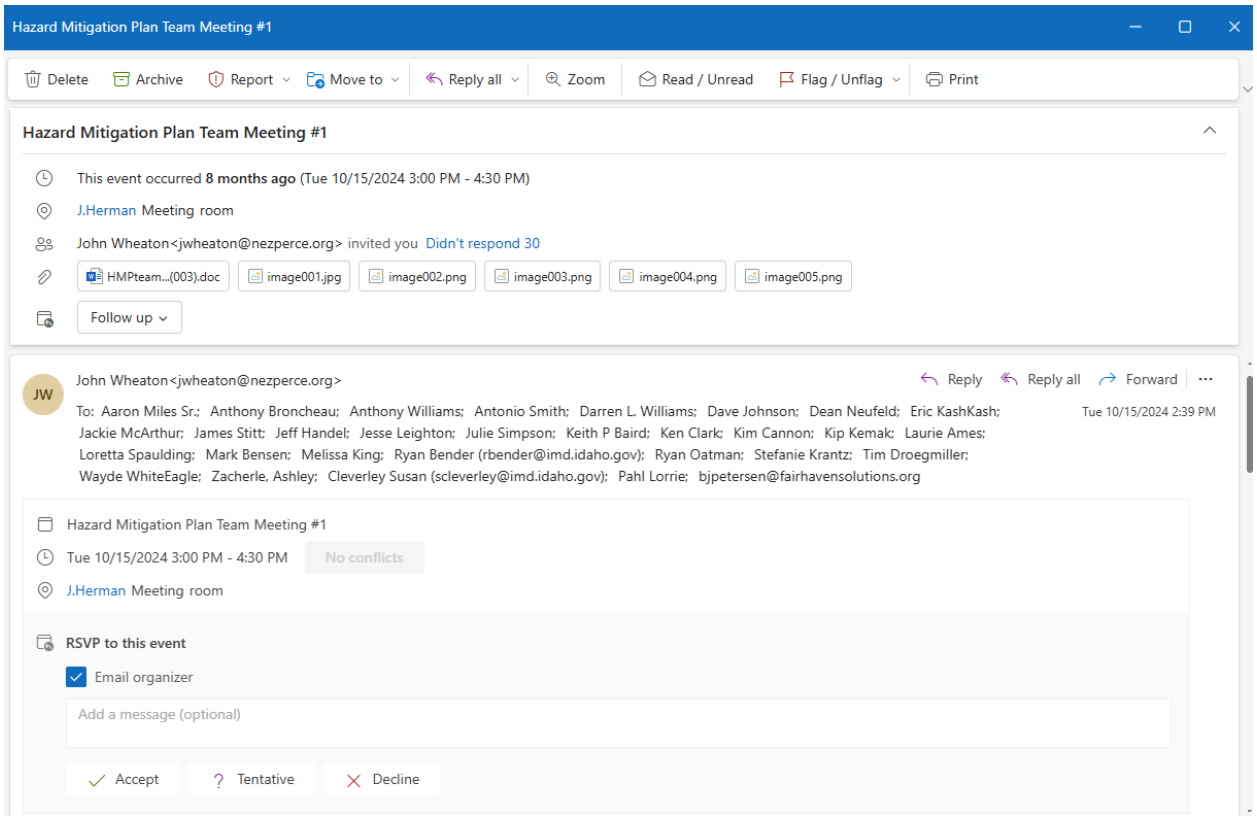
Federal (cont'd.)	Clean Water State Revolving Fund	U.S. Environmental Protection Agency (EPA)	Funds water quality projects, including all types of nonpoint source projects, watershed protection or restoration projects, estuary management projects, and more traditional municipal wastewater treatment projects	Available to entitled communities. Grant award based on specific projects as they are identified. Provides more than $5 billion annually
	Aid to Tribal Governments	Bureau of Indian Affairs (BIA)	Supports general Tribal government operations, maintaining up-to-date Tribal enrollment, conducting Tribal elections, and developing appropriate Tribal policies, legislation, and regulations	Available to entitled Tribes. Grant award based on specific projects as they are identified
	Forestry on Indian Lands	BIA	Maintains, protects, enhances, and develop Indian forest resources through the execution of forest management activities	Available to entitled Tribes. Awards depend upon the amount that has been prioritized by the individual tribe through Tribal participation in the BIA's budget formulation process
	Housing Improvement Program (HIP)	BIA	Eliminates substandard Indian owned and inhabited housing for very low-income eligible Indians living in approved Tribal service areas	Available to entitled Tribes who have eligible applicants with identified housing needs. The maximum award is $35,000 for repairs and renovations; new housing does not have a specified amount
	Community Action for a Renewed Environment	EPA	Funds for the removal or reduction of toxic pollution (i.e., storm water)	Competitive grant program. Grant award based on specific projects as they are identified
	Emergency Watershed Protection Program	U.S Department of Agriculture, Natural Resources Conservation Services	Removes silt and debris from stream channels, road culverts, and bridge abutments, reshapes and protects (e.g., rip rap) eroded stream banks; reseeds of damaged areas, deflects of potential flood or mudslide material away from private or public structures (e.g., sandbags, k-rails), etc.	Varies, depending on the number of natural disasters. Must submit request within 60-days of a natural disaster or within 60-days of access to site

Federal (cont'd.)	Flood Control and Coastal Emergency Act	U.S. Army Corps of Engineers (USACE)	Provides disaster preparedness services and advanced planning measures designed to reduce the amount of damage caused by an impending disaster	Varies, depending on the number of floods. Must submit request within 30 days of flood or coastal storm event
Federal	Tribal Homeland Security Grant	FEMA	Provides Tribes for the emergency capabilities of 1) Infrastructure systems 2) Mass Care Services 3) Mass Search and Rescue Operations 4) On-Scene Security, Protection, and Law Enforcement 5) Operational Communications 6) Planning 8) Public Information and Warning	$10,000,000 available to Tribes nationwide for FY18.
Tribal	General Fund	Department specific	Provides operational and program-specific funding	Limited to no availability

Appendices

Appendix 1 – Agendas and Attendees Documentation

HMP Team Meeting: Kickoff Meeting: October 15, 2024 (On-line and in person)



Hazard Mitiation Grant Post Fire Meeting
November 14th, 2024
J.Herman Reuben Bldg. 9:00 am - 11:00 pm

	Program	Name	Attendee Signature	Fed Funded Y/N
1	NPT Land Services	Laurie Ames	Laurie Ames	N
2	Nimiipuu Health	Jim Stitt		
3	NPT Water Resources	Trent Bodily		Y
4	NPT Water Resources	Anthony Williams		Y
5	NPT Emerg. Mng.	John Wheaton		
6	~~Bradley Peterson Consultant~~	Bradley Peterson		N
7	NPT ERW M	Antonio Smith		Y
8	~~Aaron~~ NPT Nat Res.	Aaron Miles	online	
9	~~Ken Clark~~ NPT Nat Rs.	Ken Clark	online	
10	NPT IT	Melissa King	online	
11	NPT OLC	Darren Williams	online	
12	NPT Exec Asst	Catherine Arthur Bigman	online	
13	NPT Grant Coord.	Anthony Broncheau	online	
14	FEMA BRIC DTA	John Weber	online	
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Agenda

Hazard Mitigation Plan Update

October 15th, Tuesday 1:30-3:00pm

“Hope for the Best, Prepare for the Worst”

Lifesize Teleconferencing

Join the meeting: https://call.lifesizecloud.com/3879023

Click to call from Mobile (audio only)
United States: +1 (312) 584-2401,, 3879023#

Call in by Phone (audio only)
United States: +1 (312) 584-2401
Meeting extension: 3879023#

1:30pm – Hazard Mitigation Plan Introduction

- Overview of thoughts about the plan
- What can be included or excluded

2:00pm – Prepare to receive assignments to help with the meeting

2:30pm – Meet Monthly in person and one time online

- There is only 9 months to complete everything for the update
- Presentation

November 6, 2024, HMP Team Meeting – Online Only

Excel OnlineHMGPRecordSign-In-Sheet 11.6.2... Open in Excel Save as

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	A	B	C	D	E
1		Program	Name	Attendee Signature	Fed Funded Y/N
2					
3	1	NPT Exec.Dir. Asst.	Catherine Arthur-Bigman		
4	2	IOEM AFO N.C. Idaho	Ryan Bender		
5	3	NPT Social Services Dir	Jackie McArthur		
6	4	FEMA Tribal BRIC Coor	John Weber		
7	5	NPT ERWM Air Quality	Andrea Boyer		
8	6	NPT WRD Climate Chg.	Ashley Zacherle		
9	7	FEMA Tribal Liaison	Bradley Peterson		
10	8	NPT ERWM EM	John Wheaton		
11	9	NPT ERWM Comm.	Antonio Smith		
12	10	NPT Finance Grants	Anthony Broncheau		
13	11	NPT WRD HERT	Anthony Williams		
14	12				

Agenda

NEZ Perce HMP Team Meeting

November 6, 2024

I. Welcome

II. Introduction

III. Timeline

IV. Mitigation Action Items – 2019 Discussion

V. Public Meeting

VI. Other Items

VII. Close

November 14, 2024 – Meeting

Hazard Mitiation Grant Post Fire Meeting
November 14th, 2024
J.Herman Reuben Bldg. 9:00 am - 11:00 pm

	Program	Name	Attendee Signature	Fed Funded Y/N
1	NPT Land Services	Laurie Ames		N
2	Nimiipuu Health	Jim Stiff		
3	NPT Water Resources	Trent Bodily		Y
4	NPT Water Resources	Anthony Williams		Y
5	NPT Emerg. Mng.	John Wheaton		
6	~~Property Peterson Consultant~~	Bradley Peterson		N
7	NPT IRMP	Antonio Smith		Y
8	~~Aaron~~ NPT Nat. Res.	Aaron Miles	online	
9	~~Ken Clarke~~ NPT Nat Res.	Ken Clark	online	
10	NPT IT	Melissa King	online	
11	NPT OLC	Darren Williams	online	
12	NPT Exec Asst	Catherine Arthur Bigman	online	
13	NPT Grant Coord.	Anthony Broncheau	online	
14	FEMA BRIC DTA	John Weber	online	
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Agenda
HMP – Team Meeting
Thursday November 14, 2028

I. Welcome

II. Introduction

III. Questions from Last Meeting

IV. STEM Fair Discussion – Dec. 5th

V. Mitigation Strategies – Discussion

VI. Adjourn

December 5, 2024 – Meeting with Nez Perce Climate Change Coordinator

- Attendees:
  - John Wheaton
  - John Weber
  - Bradley Petersen
  - Stephine Krantz
  - Ken Clark

Agenda
Water Resources and Environmental Needs
December 5, 2024

I. Introduction
II. Understanding Tribe's Priorities
III. Climate Adaptation Plan
IV. Grant - $37 million
V. Environmental Hazards the Tribe is Facing
VI. Challenges
VII. Communication

December 6, 2024 – Meeting with Nez Perce Forestry and Wildfire Division

- **Attendees:**
    - John Weber
    - John Wheaton
    - Bradley Petersen
    - Howard Teasley
    - Kip Kemak
    - Tim Droegmiller
    - Jeff Handel

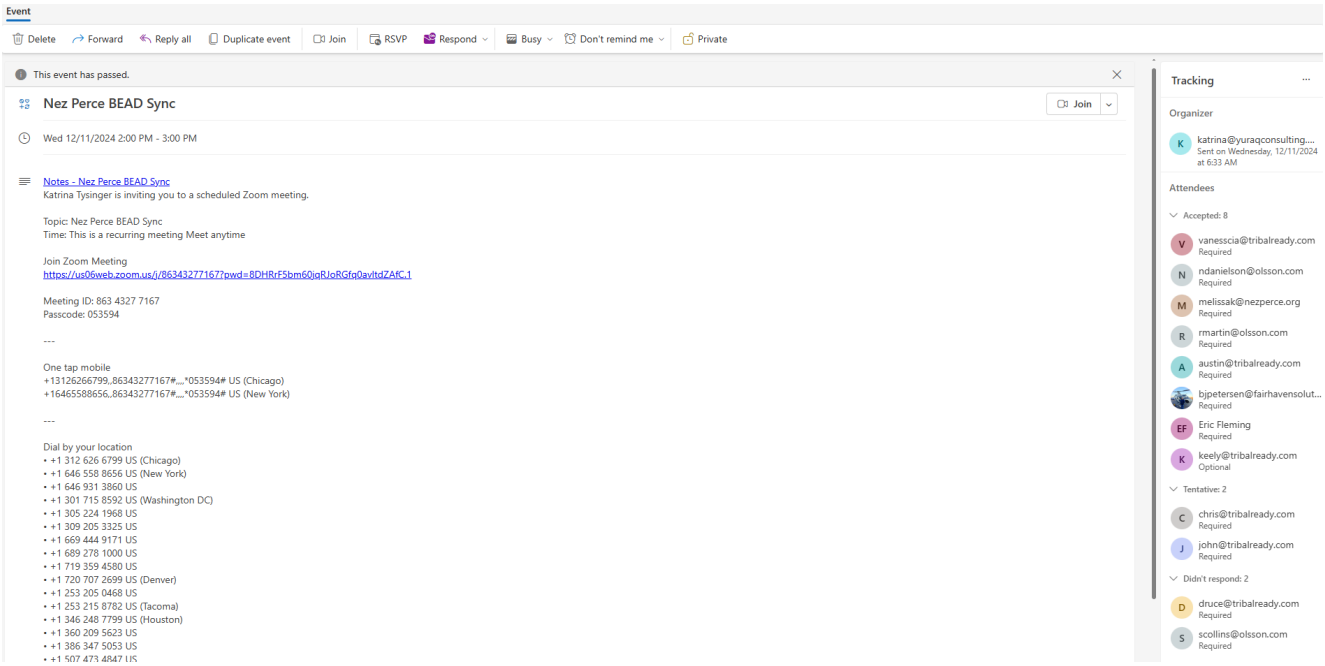
Agenda

December 5, 2024

Nez Perce Forestry and Wildfire Division Discussion

I. Introduction
II. History of NP Forest Operations
III. Wildfire Efforts
    A. Coordination
    B. Fuel Reductions
    C. Grants
IV. Funding/Grants
V. Equipment
VI. Education
VII. Preparedness
VIII. Communications

December 11, 2024 – Participated in Nez Perce Broadband Board Discussion – Online



Agenda Item: This was a Nez Perce Broadband meeting that I was invited to attend. Discussion about potential partnership with Tribe and potential emergency communication response opportunities.

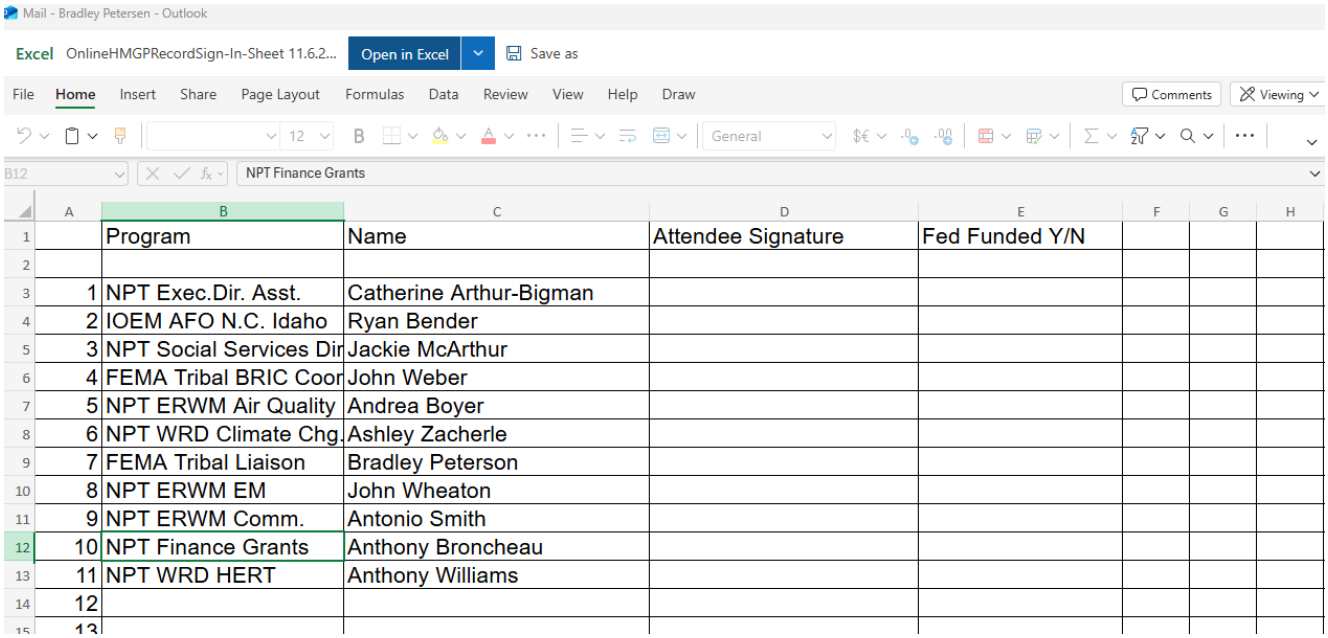
December 19, 2024, Follow-up Meeting with Forestry/Wildfire Department

- Attendees:
    - Kip Kemak
    - Jeff Handel

Agenda

I. **Details about Gwen Fire**
II. **Discussion on Idaho Dept. of Lands wildfire Report for 2019-2024**

December 19, 2025, Nez Perce HMP-Team Meeting - Online Meeting Only



	A	B	C	D	E	F	G	H
1		Program	Name	Attendee Signature	Fed Funded Y/N			
2								
3	1	NPT Exec.Dir. Asst.	Catherine Arthur-Bigman					
4	2	IOEM AFO N.C. Idaho	Ryan Bender					
5	3	NPT Social Services Dir	Jackie McArthur					
6	4	FEMA Tribal BRIC Coor	John Weber					
7	5	NPT ERWM Air Quality	Andrea Boyer					
8	6	NPT WRD Climate Chg.	Ashley Zacherle					
9	7	FEMA Tribal Liaison	Bradley Peterson					
10	8	NPT ERWM EM	John Wheaton					
11	9	NPT ERWM Comm.	Antonio Smith					
12	10	NPT Finance Grants	Anthony Broncheau					
13	11	NPT WRD HERT	Anthony Williams					
14	12							

Agenda
NPT Hazard Mitigation Plan Team Meeting
December 19, 2024

1. Presentation
2. Wildfire Discussion
3. Floodplain Discussion

December 23, 2024, Meeting with – Idaho Department of Lands

- Attendees:
  - Trye Holfeltz
  - Bradley Petersen

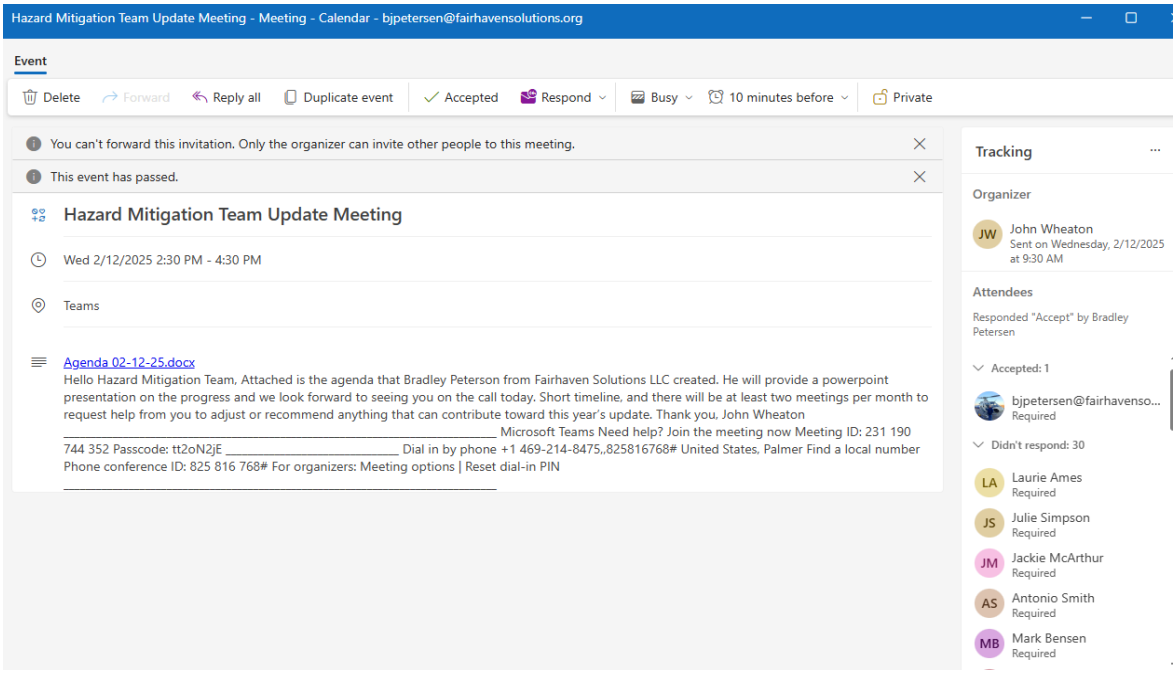
Agenda

I. Introduction
II. Purpose of IDL

III. History of IDL

IV. CWPPs

February 12, 2025, Nez Perce Hazard Mitigation Team Meeting



	A	E
1	**Hazard Mitigation Team Update Meeting February 12, 2025**	
2		
3	**Name**	**Attendance**
4	bjpetersen@fairhavensolutions.org <bjpetersen@fairhavensolutions.org>	Required
5	Laurie Ames <lames@nezperce.org>	Required
6	Julie Simpson <julies@nezperce.org>	Required
7	Jackie McArthur <jackiem@nezperce.org>	Required
8	Antonio Smith <antonios@nezperce.org>	Required
9	Mark Bensen <markb@nezperce.org>	Required
10	Dean Neufeld <dneufeld@phd2.idaho.gov>	Required
11	Wayde WhiteEagle <waydew@nezperce.org>	Required
12	Melissa King <melissak@nezperce.org>	Required
13	Janet Poitra <janetp@nezperce.org>	Required
14	Ken Clark <kenc@nezperce.org>	Required
15	Jeff Handel <jeffh@nezperce.org>	Required
16	Dave Johnson <davej@nezperce.org>	Required
17	Aaron Miles Sr. <2moon@nezperce.org>	Required
18	Anthony Broncheau <anthonyb@nezperce.org>	Required
19	Anthony Williams <anthonyw@nezperce.org>	Required
20	Darren L. Williams <darrenw@nezperce.org>	Required
21	Eric KashKash <erick@nezperce.org>	Required
22	Jesse Leighton <jessel@nezperce.org>	Required
23	James Stitt <jstitt@nimiipuu.org>	Required
24	Kim Cannon <kcannon@nezperce.org>	Required
25	Keith P Baird <keithb@nezperce.org>	Required
26	Kip Kemak <kipk@nezperce.org>	Required
27	Loretta Spaulding <lorettas@nezperce.org>	Required
28	Ryan Bender (rbender@imd.idaho.gov) <rbender@imd.idaho.gov>	Required
29	Ryan Oatman <ryano@nezperce.org>	Required
30	Stefanie Krantz <stefaniek@nezperce.org>	Required
31	Tim Droegmiller <timd@nezperce.org>	Required
32		
33		
34		

Agenda
Nez Perce Tribe's: All Hazard Mitigation Plan Update
Tribal Emergency Response Planning Team (TERPT)

Wednesday, February 12, 2025

I. Introduction

II. Comments/Questions from past meetings, Activities or Discussions
- STEM Fair (December 5, 2024)
- "One-on-One" Meetings in December 2024
- TERPT Meeting (December 19, 2024)
- Other?

III. Presentation
i. Wildfire Maps and Information
ii. All Hazards Survey: discussion and current results
iii. Tribal Risk Impact Assessment Survey
iv. Timeline Discussion

IV. Assignments/Help Needed

V. Schedule Time for Next TERPT Meeting

March 18, 2025, Meeting with Lewis County Commissioners: Mike Tornatore

- Attendees:
  - Mike Tornatore
  - Bradley Petersen
  - Eric Fleming

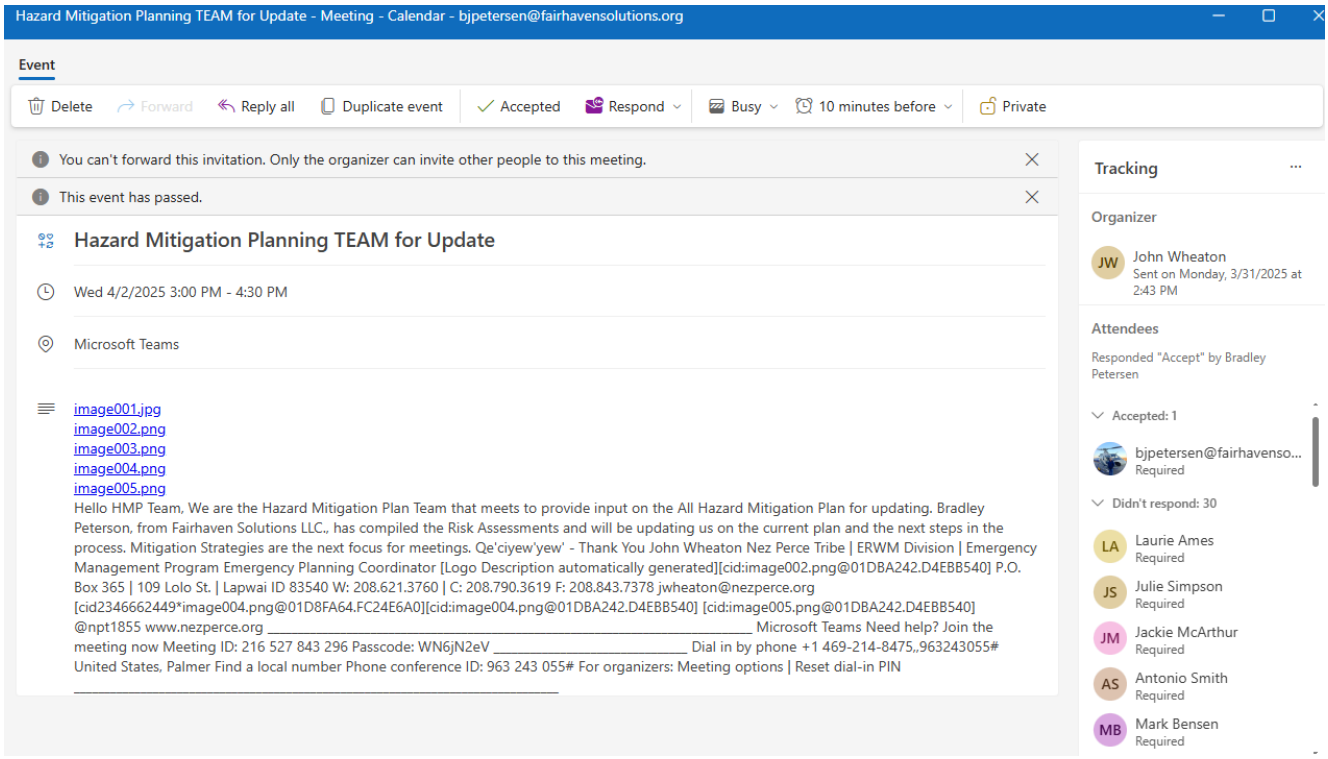
Agenda: Introductions, and discussion on Counties collaborating with the Tribe, and how to improve opportunities to work together.

March 18, 2025, Meeting with Clearwater County's Emergency Manager

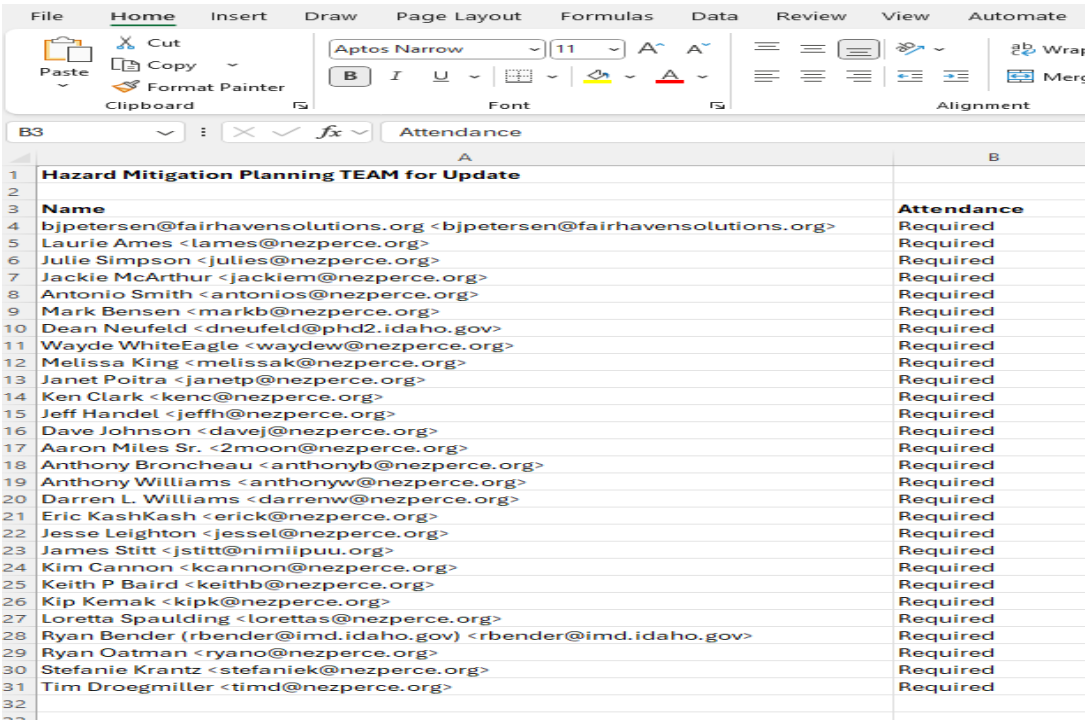
- Attendees:
    - Don Gardner
    - Bradley Petersen

Agenda: Introductions, and discussions on shared mitigation needs between Clearwater County and the Nez Perce Tribe.

April 2, 2025, Nez Perce HMP-Team Meeting – Online



Invited Attendees:



	A	B
1	**Hazard Mitigation Planning TEAM for Update**	
2		
3	**Name**	**Attendance**
4	bjpetersen@fairhavensolutions.org <bjpetersen@fairhavensolutions.org>	Required
5	Laurie Ames <lames@nezperce.org>	Required
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30	Stefanie Krantz <stefaniek@nezperce.org>	Required
31	Tim Droegmiller <timd@nezperce.org>	Required
32		

Agenda

Nez Perce Tribe's: All Hazard Mitigation Plan Update
Tribal Emergency Response Planning Team (TERPT)

Wednesday, April 2, 2025

I. Introduction

II. Activities Updates
   a. Surveys
   b. City of Lapwai
   c. City of Kamiah
   d. Counties: Lewis, Idaho, and Clearwater

III. Hazard Identification and Risk Assessment Discussion
   a. Overview of Surveys: See Attachment: *Hazard Mitigation Assessment Overview.pdf*

IV. Identifying Priorities of Hazards

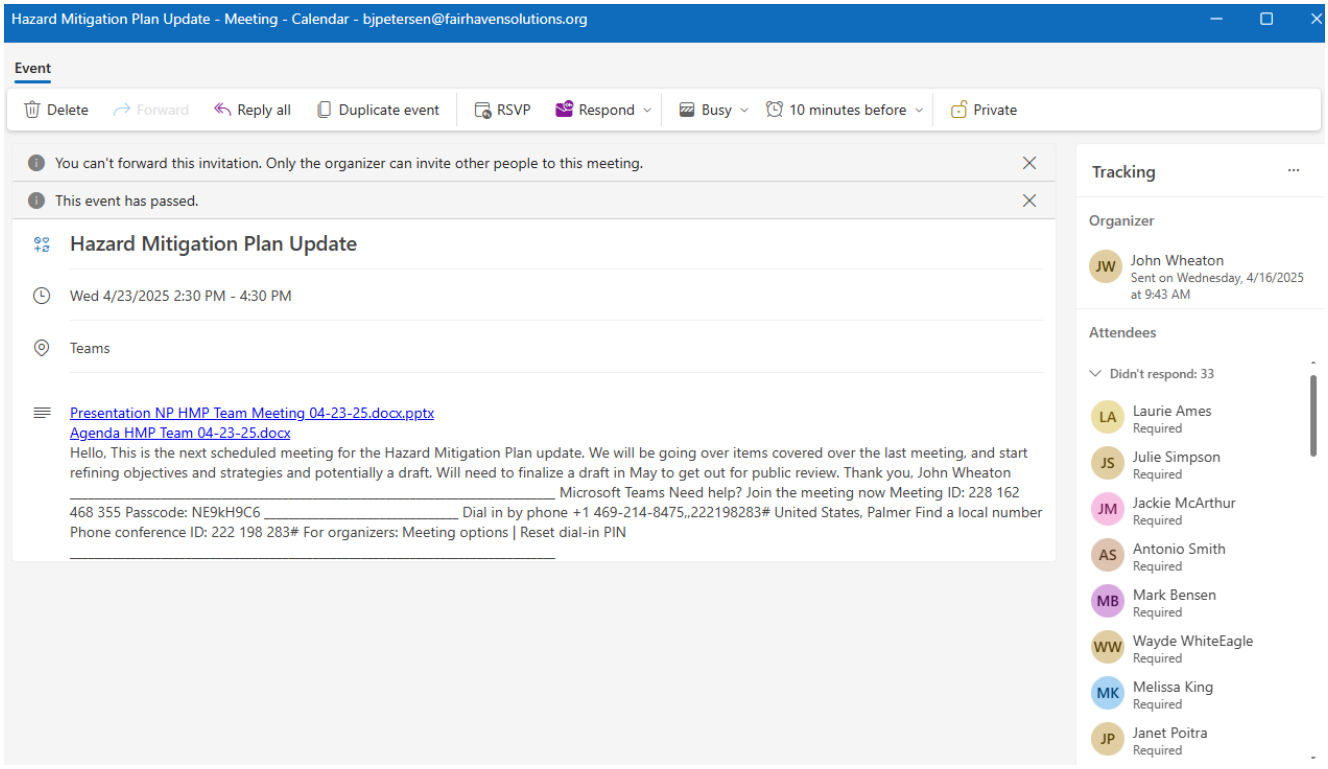
V. Mitigation Strategies Discussion

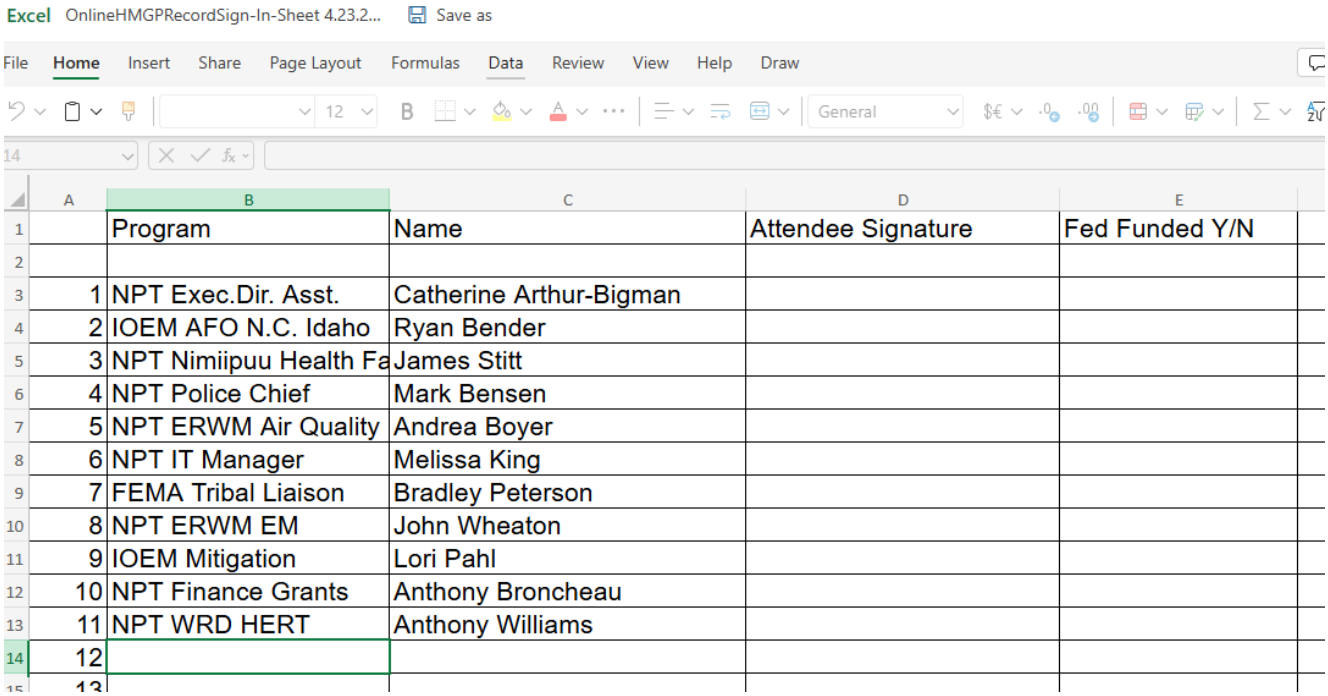
VI. Public Meetings Discussion

VII. Schedule Time for Next TERPT Meeting

VIII. Adjourn

April 23, 2025, Nez Perce HMP-Team Meeting: Online





	A	B	C	D	E
1		Program	Name	Attendee Signature	Fed Funded Y/N
2					
3	1	NPT Exec.Dir. Asst.	Catherine Arthur-Bigman		
4	2	IOEM AFO N.C. Idaho	Ryan Bender		
5	3	NPT Nimiipuu Health Fa	James Stitt		
6	4	NPT Police Chief	Mark Bensen		
7	5	NPT ERWM Air Quality	Andrea Boyer		
8	6	NPT IT Manager	Melissa King		
9	7	FEMA Tribal Liaison	Bradley Peterson		
10	8	NPT ERWM EM	John Wheaton		
11	9	IOEM Mitigation	Lori Pahl		
12	10	NPT Finance Grants	Anthony Broncheau		
13	11	NPT WRD HERT	Anthony Williams		
14	12				

Agenda

Nez Perce Tribe's: All Hazard Mitigation Plan Update
Wednesday, April 23, 2025

I. Introduction

II. Discussion or Questions from last Meeting

III. Update on yesterday's meeting on Emergency response

IV. Hazard Mitigation Strategies

V. Mitigation Goals 2019

VI. Mitigation Goals (Suggested) 2025

VII. Mitigation Actions 2019

VIII. Discussion: Mitigation Actions 2025

IX. Public Meetings Discussion

X. Schedule Time for Next Meeting

a. Tuesday, April 29th?

XI. Adjourn

April 29, 2025: Nez Perce HMP-Team Meeting: In person and online

Hazard Mitiation Plan Update Mtg.
April 29th, 2025
J.Herman Reuben Bldg. 1:00pm - 4:00 pm

	Program	Name	Attendee Signature	Fed Funded Y/N
1	ERWM Air Quality	Andrea Boyer		Y
2	Nimiipuu Health	Jim Stiff		
3	Department of Natural Res.	Aaron Miles, Sr.		yes
4	ERWM-Emerg. Management	John Wheaton		
5	ERWM- Comm	Antonio Smith		
6	~~Bradley Peterson~~			
7	Fair Haven Solutions	Bradley Peterson		NO
8	Melissa King	IT	Online	
9	Anthony Broncheau	Finance	Online	
10	Mark Benson	Police	Online	
11				
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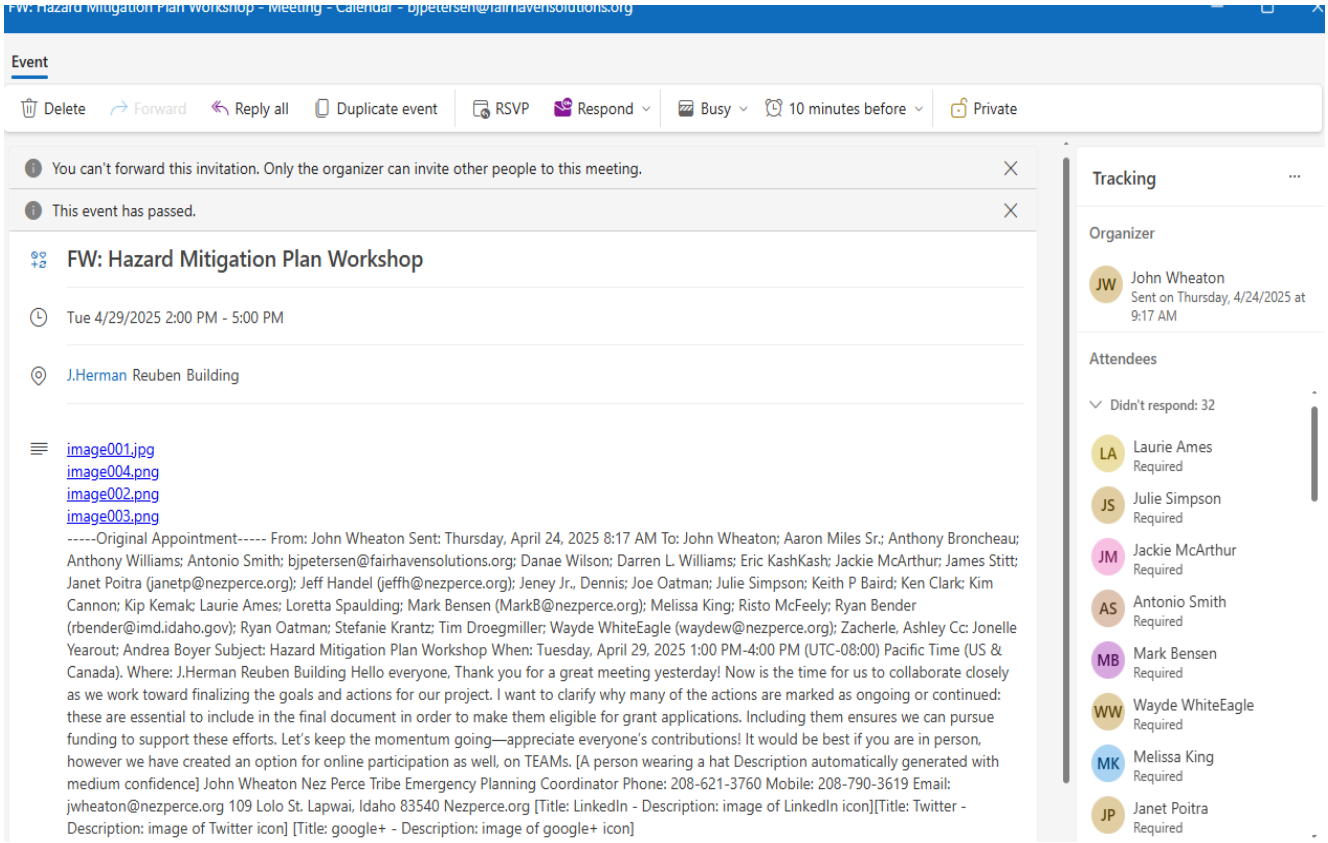

Agenda:

Discussion over Proposed: Mitigation Strategies, Goals, MAI, and Mission Statement, Vision Statement, Value Statement

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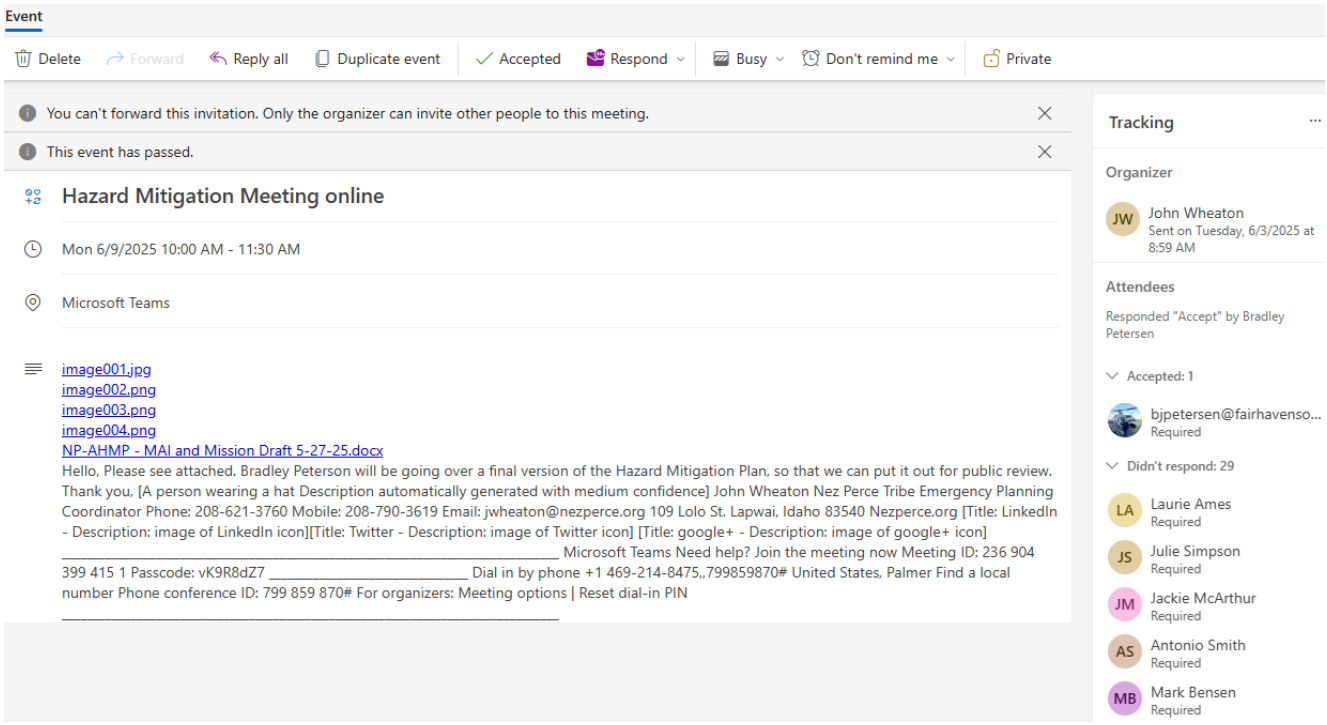
June 9, 2025: Nez Perce HMP-Team Meeting: Online Meeting



Event

Delete | Forward | Reply all | Duplicate event | Accepted | Respond | Busy | Don't remind me | Private

You can't forward this invitation. Only the organizer can invite other people to this meeting.

This event has passed.

Hazard Mitigation Meeting online

Mon 6/9/2025 10:00 AM - 11:30 AM

Microsoft Teams

image001.jpg
image002.png
image003.png
image004.png
NP-AHMP - MAI and Mission Draft 5-27-25.docx

Hello, Please see attached. Bradley Peterson will be going over a final version of the Hazard Mitigation Plan, so that we can put it out for public review. Thank you, [A person wearing a hat Description automatically generated with medium confidence] John Wheaton Nez Perce Tribe Emergency Planning Coordinator Phone: 208-621-3760 Mobile: 208-790-3619 Email: jwheaton@nezperce.org 109 Lolo St. Lapwai, Idaho 83540 Nezperce.org [Title: LinkedIn - Description: image of LinkedIn icon][Title: Twitter - Description: image of Twitter icon] [Title: google+ - Description: image of google+ icon]
_____ Microsoft Teams Need help? Join the meeting now Meeting ID: 236 904 399 415 1 Passcode: vK9R8dZ7 _____ Dial in by phone +1 469-214-8475,,799859870# United States, Palmer Find a local number Phone conference ID: 799 859 870# For organizers: Meeting options | Reset dial-in PIN
_____

Tracking

Organizer

JW John Wheaton
Sent on Tuesday, 6/3/2025 at 8:59 AM

Attendees

Responded "Accept" by Bradley Petersen

Accepted: 1

bjpetersen@fairhavenso...
Required

Didn't respond: 29

LA Laurie Ames
Required

JS Julie Simpson
Required

JM Jackie McArthur
Required

AS Antonio Smith
Required

MB Mark Bensen
Required

Excel OnlineHMGPRecordSign-In-Sheet 6.9.20... Open in Excel | Save as

File Home Insert Share Page Layout Formulas Data Review View Help Draw

	A	B	C	D	E	F	G	H
1		Program	Name	Attendee Signature	Fed Funded Y/N			
2								
3	1	NPT NR Manager	Aaron Miles					
4	2	NPT ERWM Comm.	Antonio Smith					
5	3	NPT Nimiipuu Health Fa	James Stitt					
6	4	N.C.Pub. Health Dir.	Risto McFeely					
7	5	NPT ERWM Air Quality	Andrea Boyer					
8	6	N.C.Pub.Health	Samanth Altman					
9	7	FEMA Tribal Liaison	Bradley Peterson					
10	8	NPT ERWM EM	John Wheaton					
11	9	NPT Finance Grants	Anthony Broncheau					
12	10							

Agenda
Nez Perce Tribe's HMP Team Meeting
June 9, 2025

I. Greetings

II. Present 2025 Full Hazard Mitigation Draft Plan

III. Questions and Answers

V. Assignments

Public Events and Activities

December 5, 2025, STEM Fair, Pi-Nee-Waus - Community Center / Gym, Lapwai City Hall

Description: An all-day event with hundreds of Students and their Teachers visiting booths about STEM opportunities. The Nez Perce HMP – Team sponsored a booth, invited students and Teachers to fill out a questionnaire, and participate in a FEMA virtual reality demonstration on flooding.

Responses to Questionnaire:

What grade are you in?	Have you or a family member ever experienced a natural disaster?	If yes, what type of natural disaster?	When did the event occur? This can be a season, month, or year.	What do you remember about the event?	Do you think STEM could help you/your family prepare or recover from a future natural disaster? If so, how?
9	Yes	Winter Storm	Years ago, my dad was 13.	My dad and grandpa were caught in a snow storm. My dad had to sleep in an elk to keep warm.	Yes, new technology to help better prepare.
9	No	Wildfire	Summer	The smoke and air	I don't know
9	Yes	Flood	Spring	It flooded the whole house and yard.	I'm not sure
11	Yes	Wildfire		We could see the red glow near our house from the fire.	Yes, maybe by learning how to know what to do if it comes close.
12	Not sure				Yes, could help us better prepare and take the natural disaster accordingly.
8	Yes	Wildfire		I remember that it was big and near my house.	I think it could help with preparing.
8	Yes	Wildfire		We were all scared about our house getting burned.	I don't know.
9	Not sure	Hailstorm, Windstorm, Severe Storm.	Don't know when.	I don't remember.	
9	Yes	Winter Storm, Severe Storm	Last year snow storm.	A lot of snow.	I don't know
9	Yes	Winter Storm, Severe Storm	Last year	A lot of snow.	I don't know

9	Yes	Severe Storm	Last year	Lots of snow.	Yes by using snow shovels.
7	Not sure	Wildfire, Severe Storm	2024/2023 (I think)	My stepdad drove home from work during the summer wildfire!	I have no idea, he was fire so probs "no".
7	Yes	Wildfire	2024	He was alone trying to save all the things in the house. The house is fine now but this is the second time this type of thing has happened.	
7	Not sure	Wildfire	2024	My auntie just passed any my cousins were scared.	No
12	No	Wildfire	September	It was scary none of us knew what was going to happen	This helped me understand the natural disaster and wildfires are even getting worse.
	Not sure	Wildfire	It occurred last summer with hot weather.	I remember a big fire. It was more smoky.	Yes, I feel like it will prepare me for the future.
Teacher	Yes	Flood, Wildfire	Spring/Summer	Lots of smoke and fire. The flood made a mess and tore things up.	Yes, but only so much you can do before mother nature takes over.
7	Yes	Flood	I don't know		
12	Yes	Wildfire	I think July of this year (2024)	I remember the fire being about a mile out from our house and lots of smoke in the surrounding area.	I don't know any ways that it would, but I am sure there are many ways to help with fires.
9	Not Sure		I don't know	I probably wasn't born yet	Yes, maybe by them telling me about it.
10	Yes, Not sure	Wildfire	Summer time (2024)	I remember about there was a lot of smoke and we couldn't go outside.	Yes. We could pack some clothes and leave when we can.
7	Yes	Wildfire	2 years ago	What I remember about the event is I was going to lunch at a school and when my brothers and sisters and me were outside we seen the fire.	
10	Yes	Wildfire, Windstorm, Winter Storm	Last summer	I remember that the house burnt down.	Yes think cause I like working with technology
10	Yes	Winter Storm	Dec-24	Snow (drawing depiction of snow coming up high on a house)	No
8	Don't know	I don't know	I don't know	I don't know	I don't know
8	No				
8	Not sure	I don't know	I don't think there has been one.	I do not remember anything	Yes I think it could help accomplish things that would involve science.
10	Yes	Wildfire, Severe Storm	Summer of '24, I'm pretty sure 2023	I just remember having to move animals, and people evacuating.	Yes, STEM helps let you know what you can do yourself to help prepare and recover from a natural disaster.

9	Yes	Flood, Severe Storm	Florida May 10, 2018	Sitting farther away from the window	I don't think so.
9	Yes	Volcano	Don't know when.	Lots of ash, turned the day like it was night	
9	Yes	Flood, Hailstorm, Wildfire, Windstorm, Winter Storm, Severe Storm	Winter, Fall, Spring, Summer		
10	No		Years ago, my dad was 13.		STEM can help me.
	Yes	Flood, Hailstorm, Wildfire, Windstorm, Winter Storm, Severe Storm	Winter, Fall	Tree fall on house, flooding on highway, washed out. Golf size hail, trees down, electricity out.	Education on being safer in community (prepare). After mass plan.
Adult	No	Flood, Wildfire	This summer and last fall	It was scary, it was fast, it was damaging.	Not at this time.
11	Yes	Wildfire	Last year	Big fire, burning large areas, some family evacuating.	Maybe, if they had a way to stop the fire from expanding.
11	No				Yes, gathering volunteers to help elders and evacuating.
	Yes	Hurricane - Texas	Spring- Summer	We had to leave school and make sure it was water tight seal.	Having tight seals and water proof to help not flood homes.
11	Yes	Severe Storm	Oct-22	Hail storm the size of golf balls	Yes most likely with damages
11	Yes	Wildfire	One summer couple years ago	Went camping and kind of far away there was a forest fire.	I think so, could help regrow burnt forest.
11	No				I think it could help prepare but not much as recover because of depending on what has happened
10	No				Technology could help with showing new routes
7	No				I think figuring out the damage
10	Yes	Hailstorm, wildfire, winter storm, severe storm	winter, summer	It was hard to cope but I was able to work at recovering	I think we are okay
10	Yes	Hailstorm	Around August	I was in an excavator and it started to hail really bad and it hurt to walk to the car	Maybe
10	No	N/A	N/A	N/A	I do think STEM could help repair and prepare for a disaster with the right knowledge and tools.
6	Yes	Wildfire	A couple months ago		Maybe
11	Yes	Wildfire	Summer	There was fire, drawing depicting flames and smoke around a tree	Sure
	Not sure			I remembered wild fire	Yes
	No				Yes, more knowledge and awareness can be beneficial and help with preparedness in such an event.
11	Yes	Flood	Spring	We had to redo our basement	
				I remember the big fire and flood	Yeah
11	Yes	Wildfire	2015	Fires in every direction we looked	Yes, could help with preparation
12	No	N/A	N/A	N/A	yes, showing me how it would be if one did go through it
10	Yes	Flood	Two to three years ago	My family member lives close to a river and a large rainfall flooded it and her entire backyard flooded.	I could help her learn how to prepare
10	Yes	Flood	Two to three years ago	I did, there was water flowing at my neighbors field and in my yard, and there was a little pond	Yes, one of my family members helped me with many ways to keep the water getting into our house.
6	No				Yes, if there's a flood we can be better informed and ready
Teacher	Yes	Drought, flood, hailstorm, wildfire, windstorm, earthquake	2018ish		

12	Yes	Windstorm, sever storm, earthquake	Wind and other storm happened in the summer, the earthquake was in the spring a few years ago	The windstorm happen pretty often at my grandparent's house and blow limbs off trees and sometimes they break our neighbor's fence. The earthquake was small and I emerged from my room to ask my mom if that was in fact, an earthquake. She said she though my sister and I were rocking her chair and that she guessed so.	I think it can, by coming up with designs for wind resistant and quake resistant architecture, as well as preparing people for what might happen.
8	Yes	Windstorm, dust storm	Last year from summer to fall	The dust would get in my eyes and mouth, and it would blind you and it made it hard to breathe and see	I don't know
8	Yes		4 year		
12	Yes	Flood, Winter Storm, Severe Storm	Ranging from 1999 at the earliest	I've seen video footage of the event. It was very chaotic	It could help further educate us on how to recover
12	Yes	Severe Storm	like a week ago	My family lives in Seattle area and bomb cyclone	Yes, better supported buildings for storms
6	No				probably
9	Not sure		I'm not sure I was going to remember		I think so we could use STEM positively to help us predict a natural disaster
6					Tell us good things we don't know
11	No				More exposure about what STEM is and how it can help!
9	Yes	He saw 9/11	2001	My dad saw it	No
	Yes, Not sure	Flood		Not much	Yeah

STEM After-action Report:

NEZ PERCE TRIBE
EXECUTIVE SITE VISIT SUMMARY

1

December 5, 2024

ORGANIZATION/ AGENCY	PARTICIPANT NAME	ROLE/TITLE
Nez Perce Tribe	John Wheaton	Tribal Emergency Manager
FEMA Region 10	John Weber	R10 BRIC DTA Facilitator
Resilience Action Partners (CERC Contractors)	Megan Main	Communications Specialist
	Jason Farrell	Mitigation Planner

ATTENDEES:

PURPOSE:

Resilience Action Partners accompanied FEMA Region 10 on a site visit to meet leaders from the Nez Perce Tribe and the contractor who is managing the tribe's Hazard Mitigation Plan (HMP) update, Bradley Peterson. This trip served as an opportunity to learn more about the tribe's unique needs and opportunities to support public engagement. The trip also coincided

with a STEM fair hosted by the tribe. This allowed the project team to meet community members where they are. As a result, the team engaged with tribal staff and local stakeholders, including university, state and local departments; students; teachers; and residents.

During the STEM fair, *Resilience Action Partners* facilitated the IMMERSED virtual reality experience. IMMERSED was leveraged as an outreach tool to educate the community about flood risk. The team also used this opportunity to discuss ongoing mitigation efforts, local experiences with natural hazards, and information about the HMP update's purpose and process. The site visit helped FEMA and its contractors better understand the tribe's priorities, needs, geography, and understanding of risk.

ACTION ITEMS:

- Compile insights and information shared by participants about their experience with natural hazards to inform an outreach and engagement strategy.
- Meet with Region 10 BRIC DTA Facilitator John Weber to discuss the next steps.

OUTCOMES:

- Over 70 visitors provided valuable insights into their experiences with hazards, sharing their perspectives on how STEM can play a key role in long-term hazard mitigation. When developing the outreach and engagement strategy, this information will be used to help understand the audience, their care factors, and their sentiments toward hazards and mitigation.
- Approximately 70 tribal staff members, local stakeholders, students, teachers, and residents experienced IMMERSED. The experience helped visitors conceptualize the impacts of hazards in a new, interactive way, enhancing their understanding of risks and resilience.

NEZ PERCE TRIBE
EXECUTIVE SITE VISIT SUMMARY

- Supporting this event allowed the tribe's emergency manager and HMP contractor to work with FEMA Region 10 and its contractors to make inroads with a broad range of tribal/local community members. These voices are a critical component of the HMP update and other risk-reducing decisions. The event provided an opportunity to build a foundation with community members, garnering interest and early support.
- Throughout the day, strong engagement took place with a variety of groups in a casual setting. The tribe's emergency manager and plan contractor anticipate further engagement with many of these groups in the future as part of the HMP update.

March 17, 2025, Public Meeting with Lapwai City Council:

- Attendees:
    - Antonio Smith, Mayor
    - Julie Seely, Councilwomen
    - Taricia Moliga, Councilwomen
    - Carmalita Bohnee, Councilwomen
    - Cara Montelongo, Councilwomen
    - The Public

Agenda: Discussion Item as part of the Part of the City Council Meeting Agenda: Discussion on Nez Perce HMP and working together. Also discussed FEMA RiskMAP's preliminary floodplain and its impact on the city. This was a public meeting, and all were invited. **There were seven members of the public, nonelected officials, in attendance and asked questions during the discussions.**

Public Review and Comments:

The Public was invited to review and comment on the proposed updated 2025 Hazard Mitigation plan starting June 9, 2025.

Public Surveys and Responses

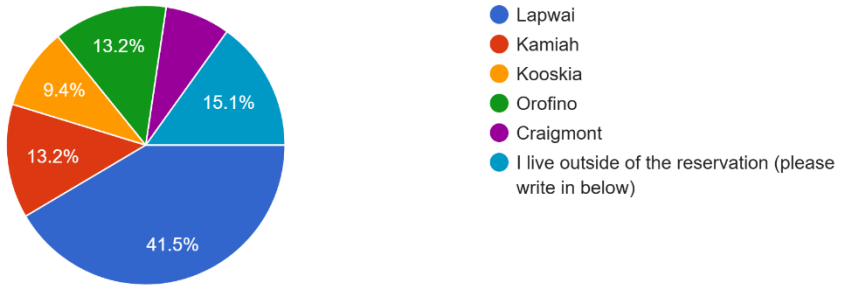
Two surveys were produced and shared with the public.

1. **Risk Perception Survey**
2. **Risk Impact Assessment Survey**

Risk Perception Survey: (55 Participants)

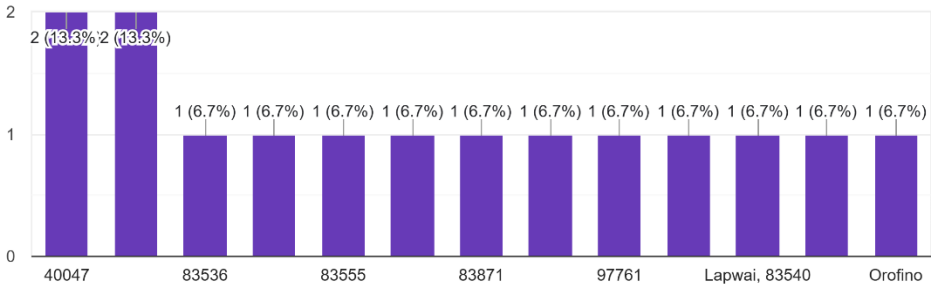
Please select the nearest city to your location

53 responses



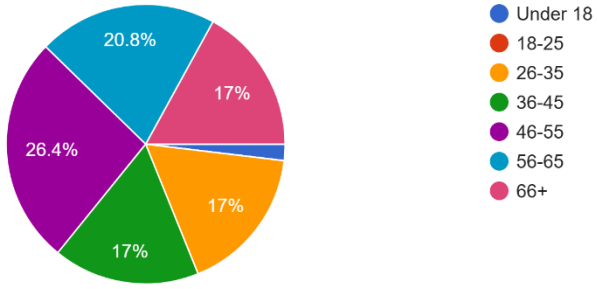
If your residence is outside of the Reservation, please write your nearest city or local zip code below:

15 responses



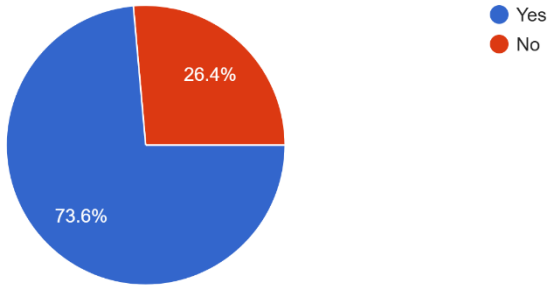
What is your age range?

53 responses



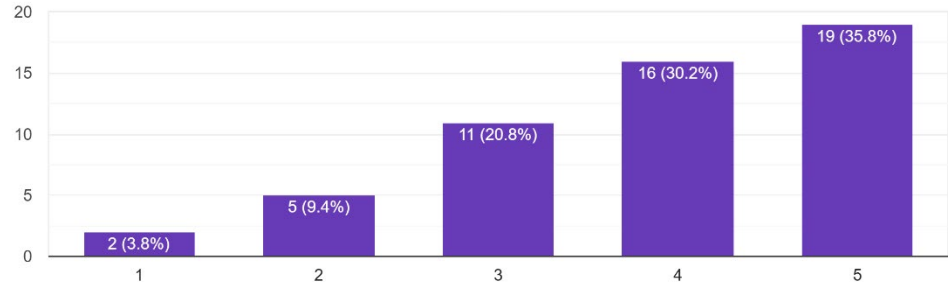
Are you a Tribal Member?

53 responses



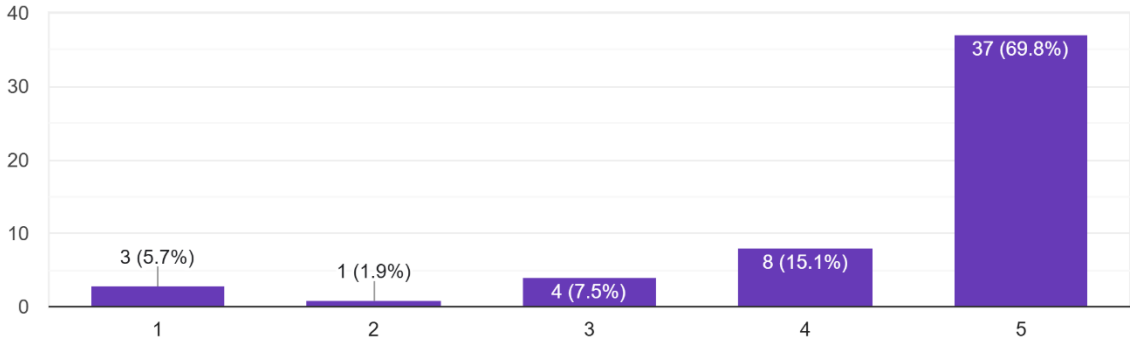
Flooding:

53 responses



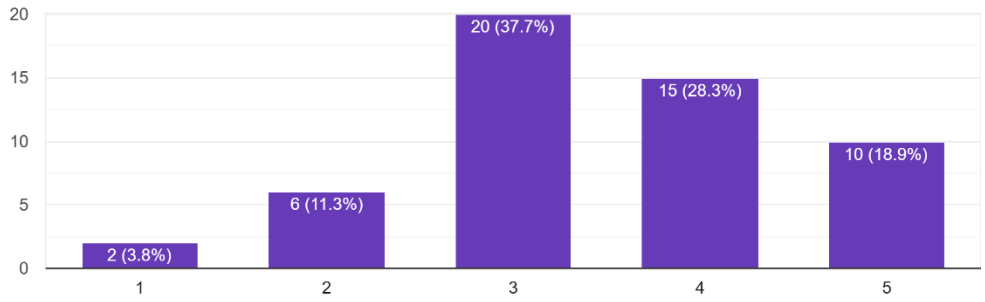
Wildfire/Smoke:

53 responses



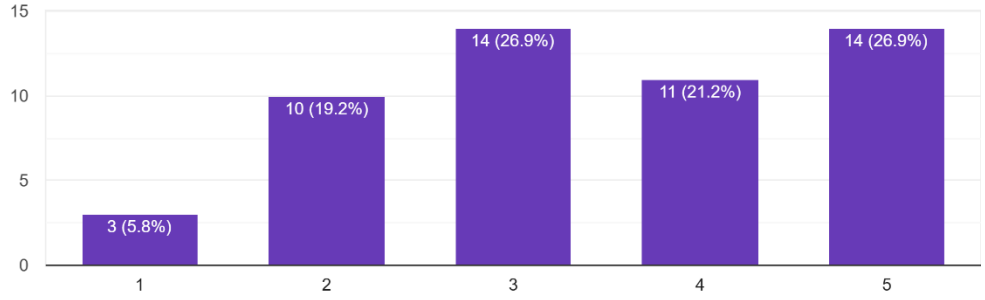
Weather Hazards: (drought, severe storms, etc.)

53 responses



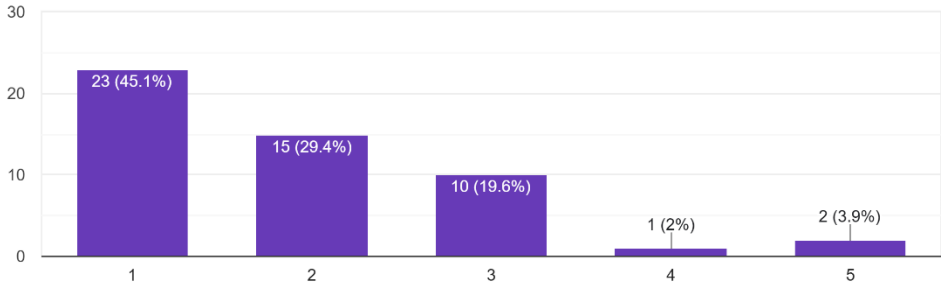
Extreme Temperatures

52 responses



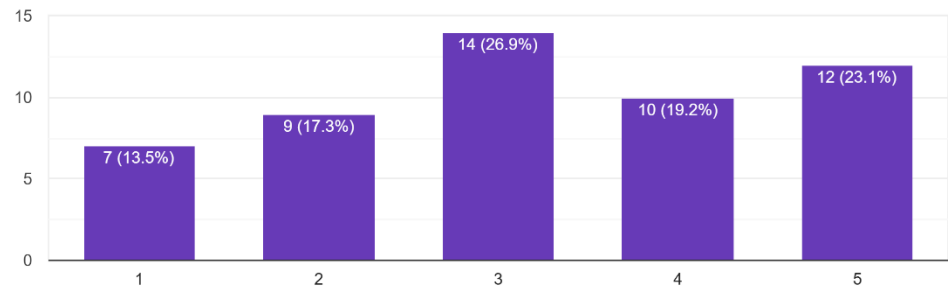
Earthquakes:

51 responses



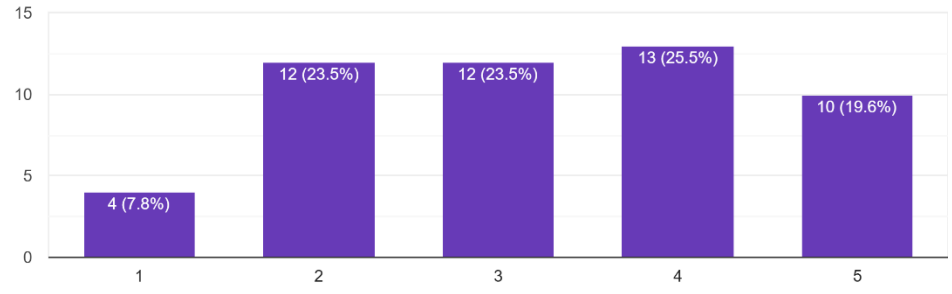
Landslides:

52 responses



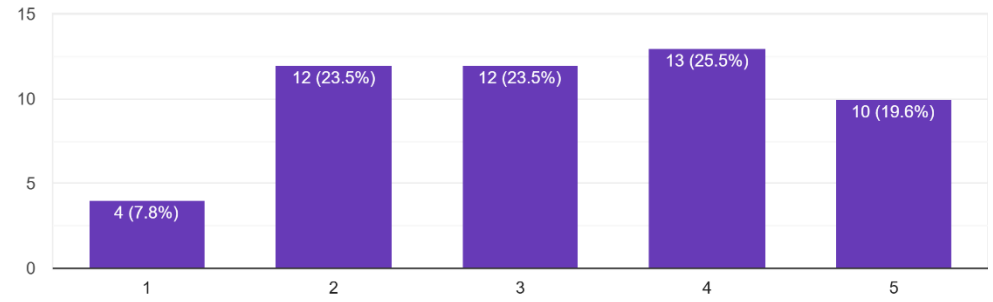
Pandemic or Disease:

51 responses



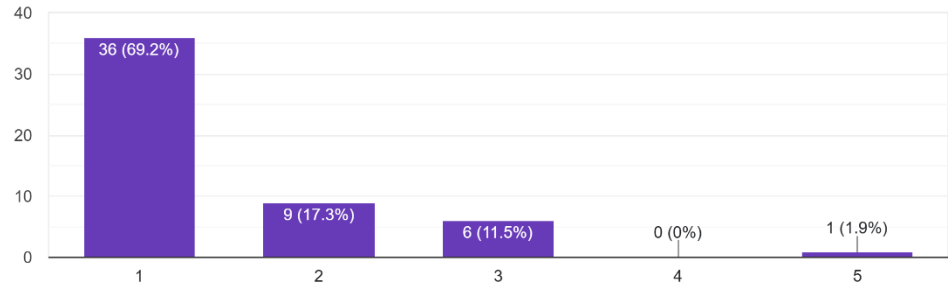
Pandemic or Disease:

51 responses



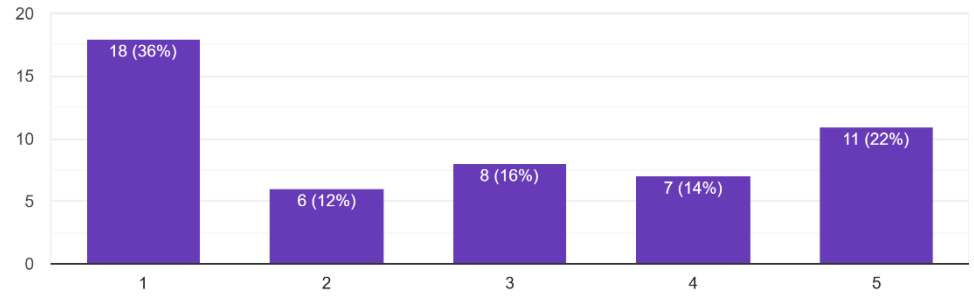
Volcanic Activity:

52 responses



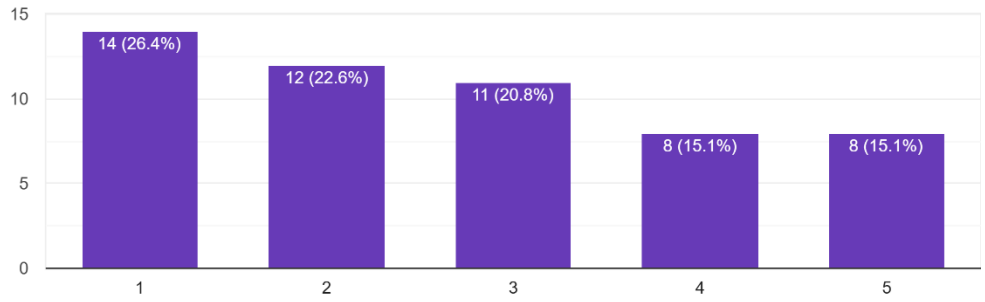
Hazardous Material: (Industrial spills/leaks, fuel spills, nuclear/radiological contamination, pollution, mining contamination etc.)

50 responses



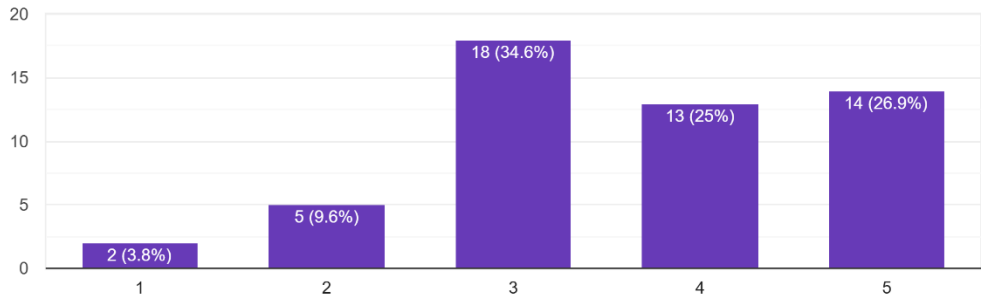
Failure or Breach of Dams

53 responses



Other Infrastructure failings: (Power outages, water failures, etc.)

52 responses

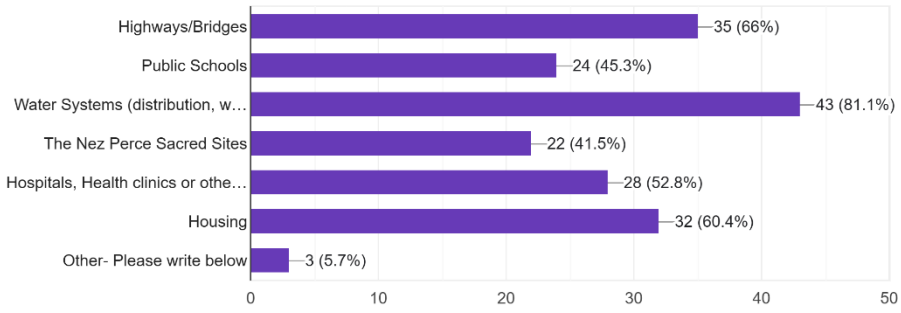


Please comment below with any additional major hazard concerns:12 responses

- Pesticides
- Letting the residents know what's going, better communication
- Does man-made hazards count such as mass shootings
- The water plant in Lapwai functioning or not?
- Coordination with local agencies, a priority, last fire was complete failure.
- Transportation hazard cargo spills, such as railway and highway.
- Gangs, drugs ODs, kill more tribal members weekly here on the NPT Reservation
- Tornados
- Potable water sources
- Pollution and lack of trees in our city
- Watersheds need restored!
- Citizens burning toxin material; & fear of meth being cooked.

Infrastructure, Cultural and Sacred sites- Please select any areas that you consider to be significantly at risk from the listed hazards.

53 responses

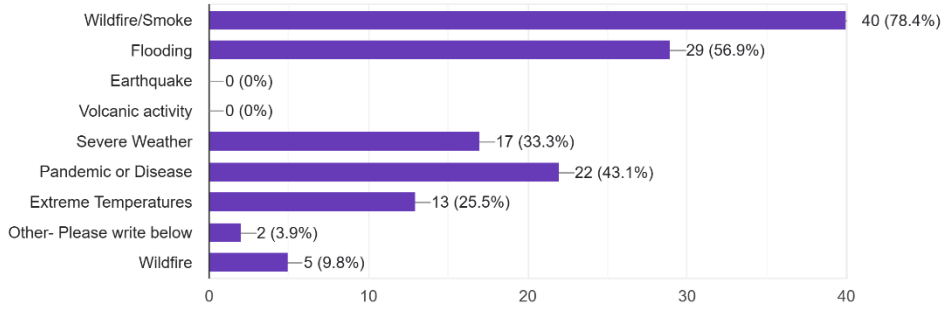


If you selected "other," please comment below: 5 responses

- The public's safety and justice system failed programs leading to crime increases.
- Pasture lands and crops
- Government Buildings Critical Infrastructure
- Access to places

Please select any natural hazards that have significantly damaged or threatened your property/residence or health in the previous 5 years:

51 responses

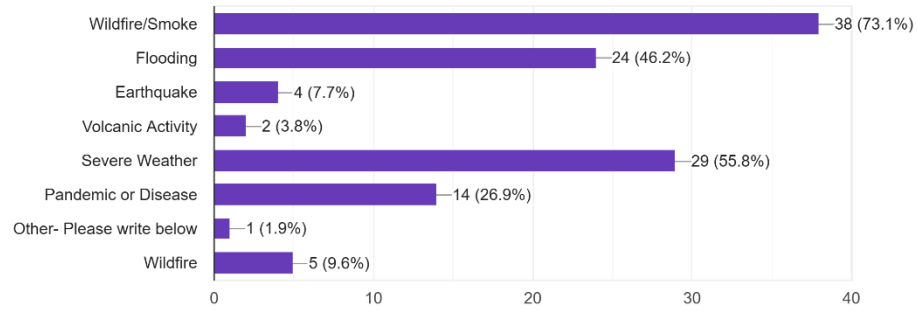


If you commented on "other," please comment below: 4 responses.

- Mudslide
- Lost two homes this past summer.
- Erosion
- Burning hazardous material

Please select any natural hazards that you expect to significantly damage or threaten your property/residence or health in the coming 5 years:

52 responses

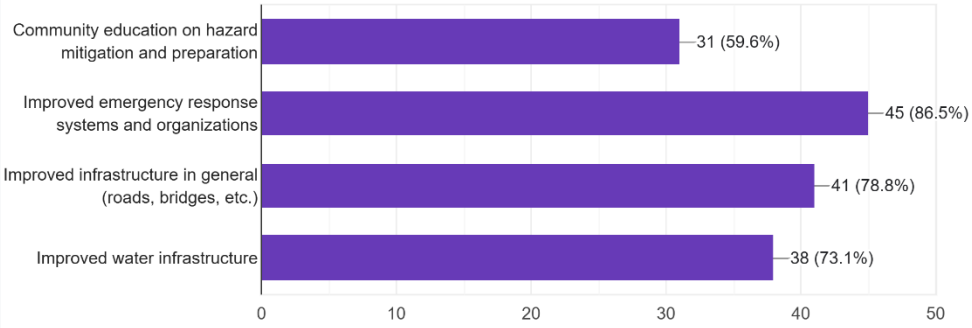


If you selected "other," please comment below: 1 response.

- Tornados

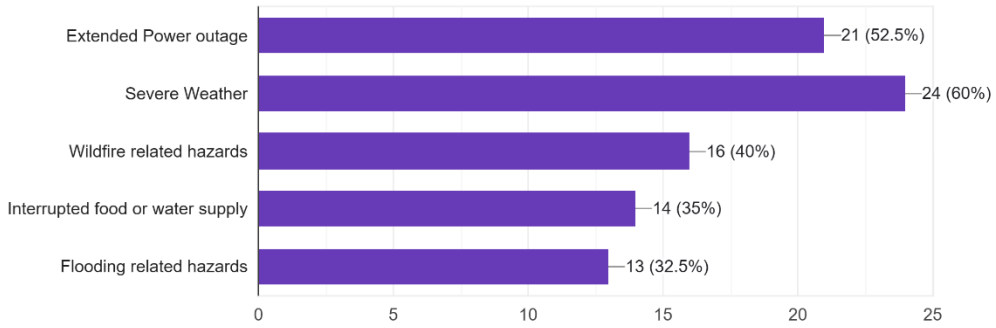
Please select any of the following that you would support:

52 responses



Do you consider your household adequately prepared for following hazards? Select all that apply:

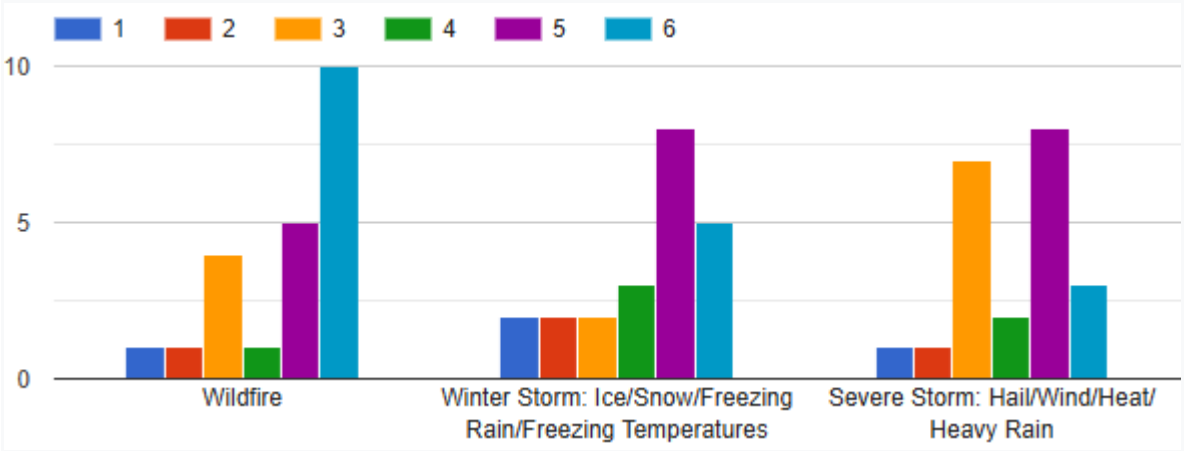
40 responses

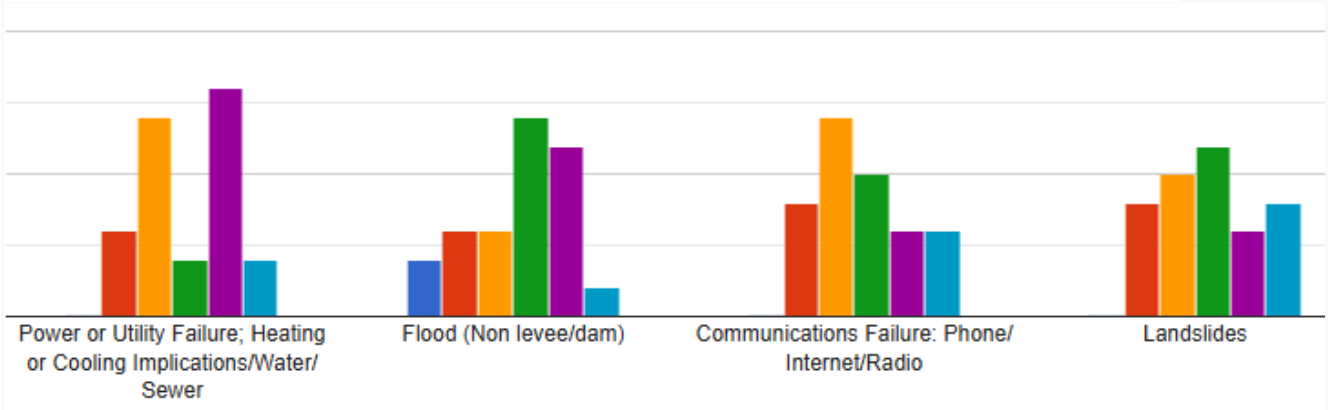


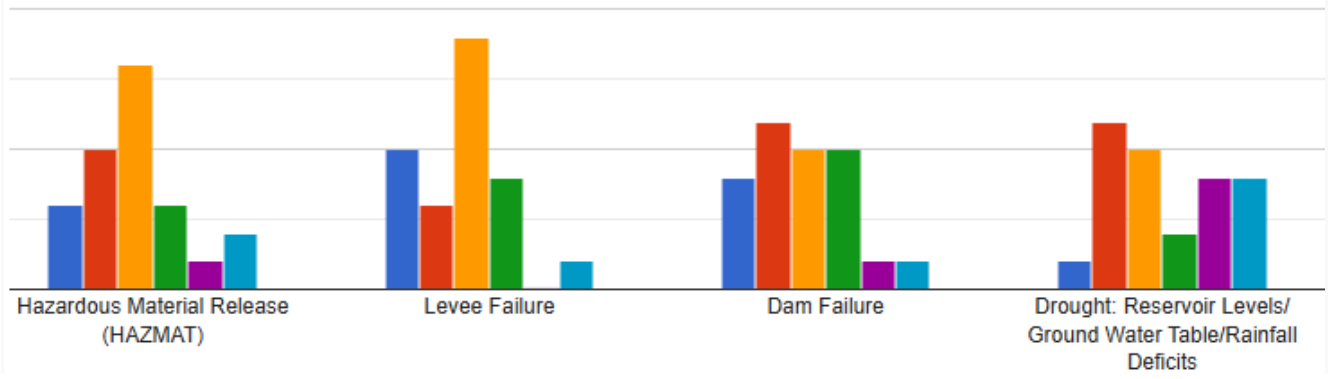
Risk Impact Assessment Survey (22 Responses)

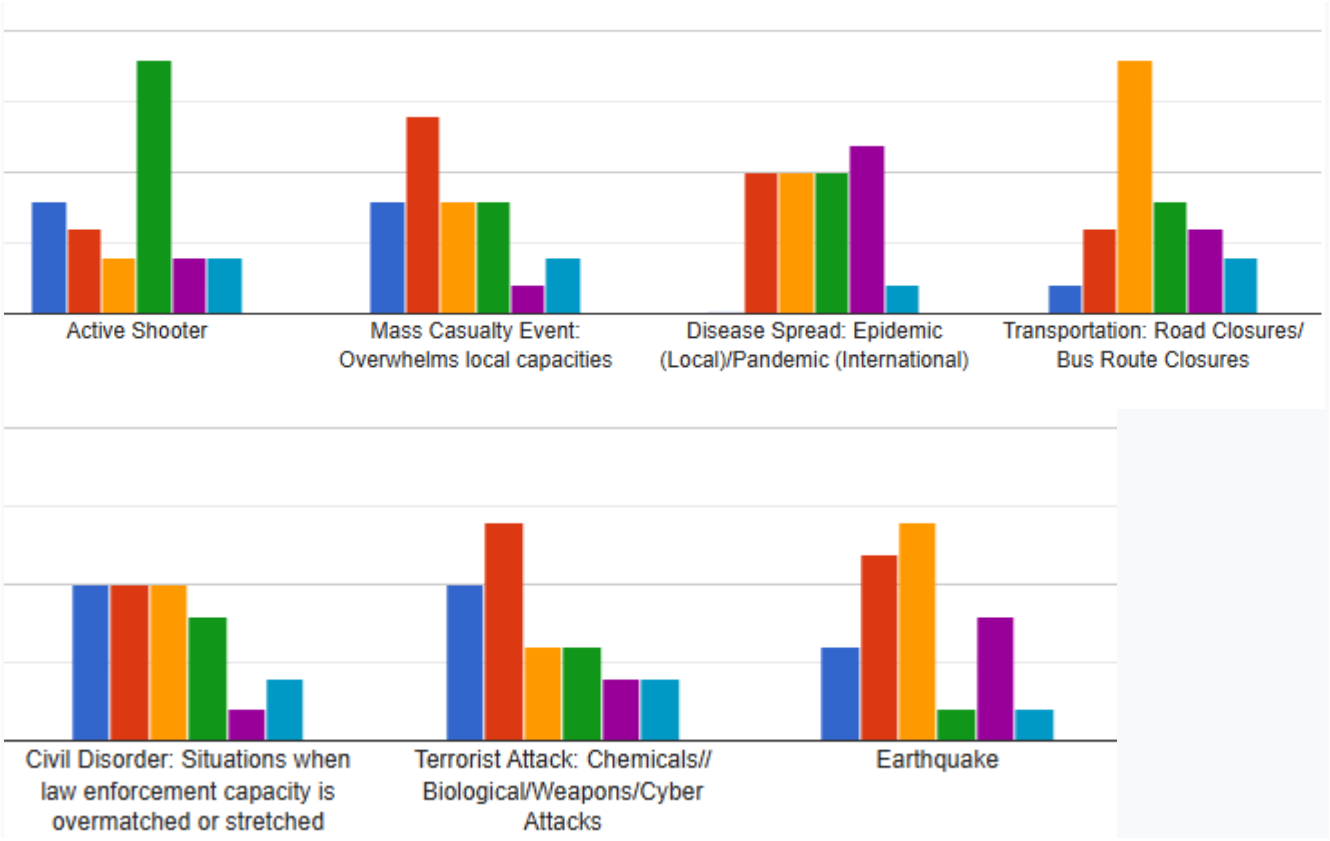
Likelihood/Frequency Scale Defined:

Question 1: How likely do you consider the following to occur on a scale of 1-6?

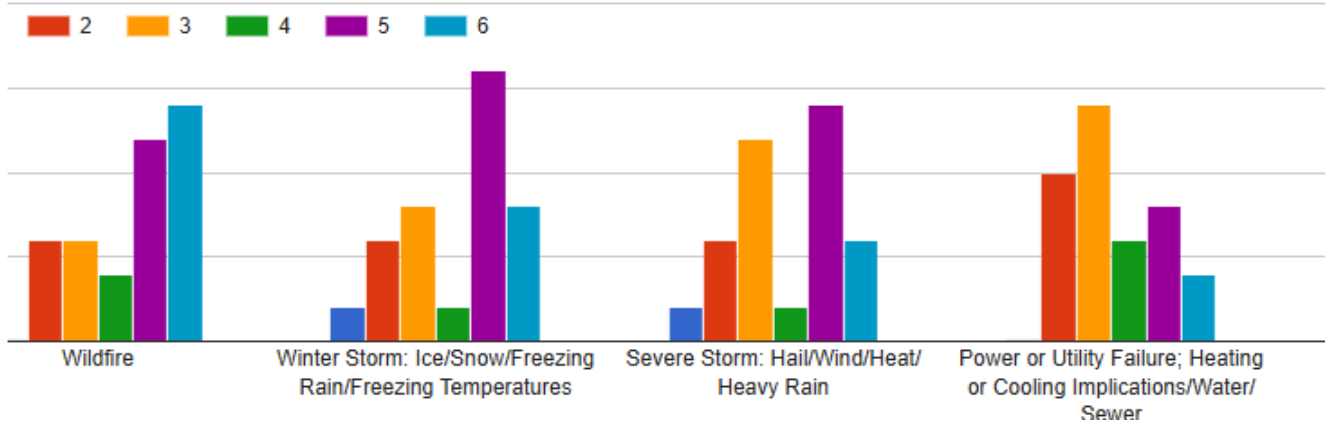


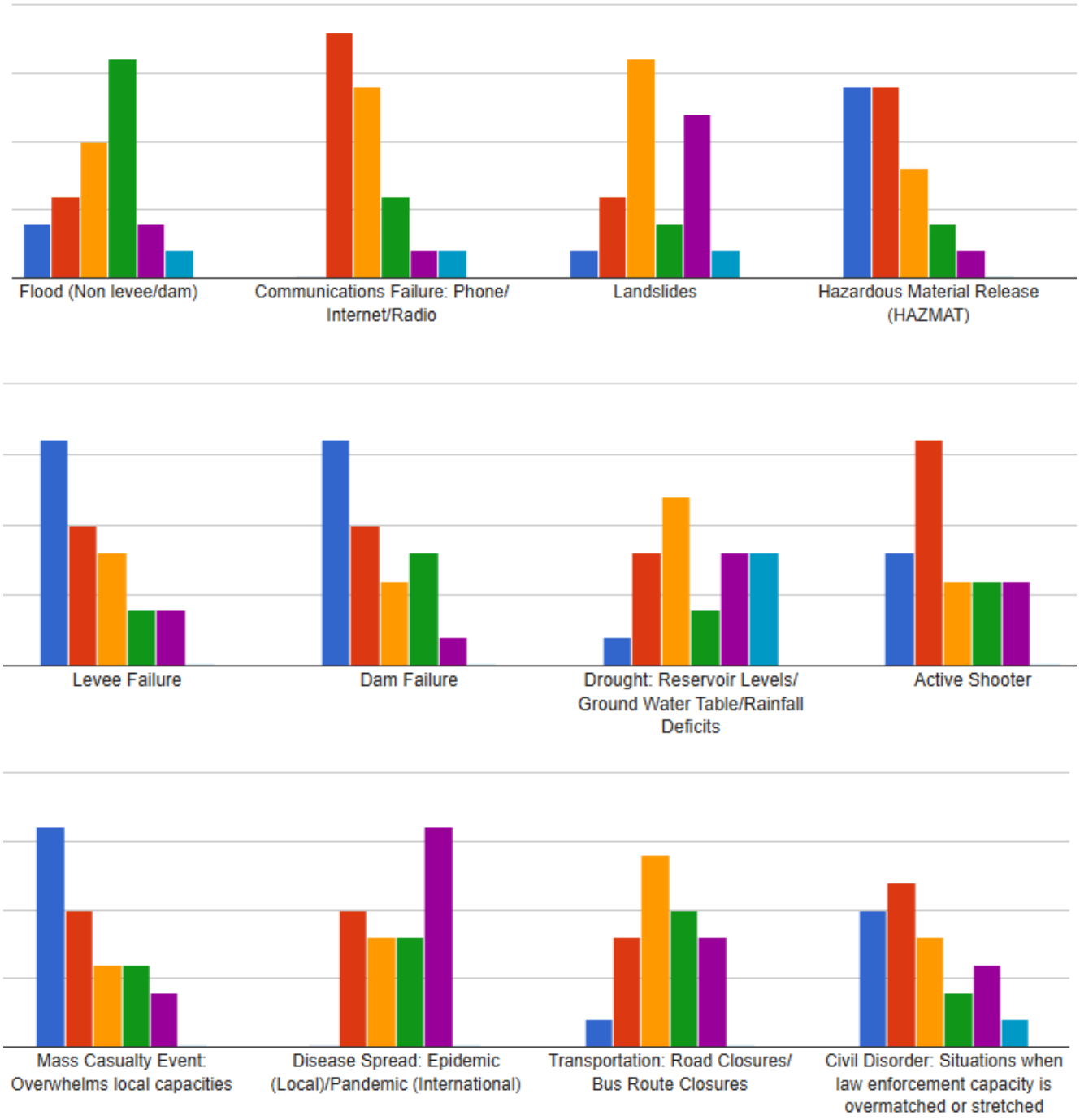


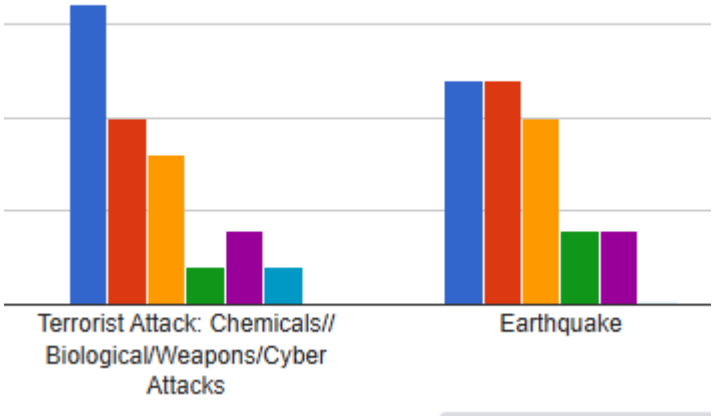




Question 2: What frequency would you ascribe to the following on a scale of 1-6?



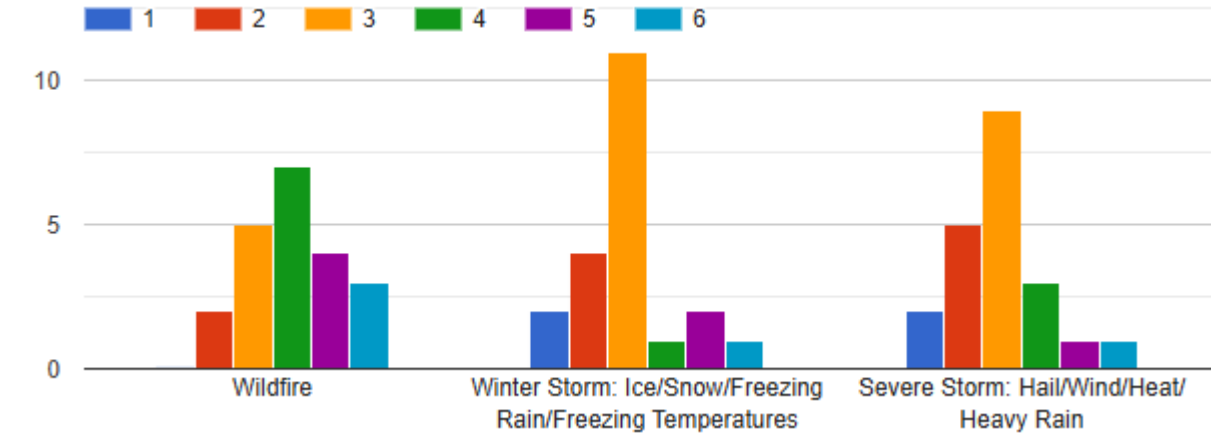

Flood (Non levee/dam)
Communications Failure: Phone/ Internet/Radio
Landslides
Hazardous Material Release (HAZMAT)
Levee Failure
Dam Failure
Drought: Reservoir Levels/ Ground Water Table/Rainfall Deficits
Active Shooter
Mass Casualty Event: Overwhelms local capacities
Disease Spread: Epidemic (Local)/Pandemic (International)
Transportation: Road Closures/ Bus Route Closures
Civil Disorder: Situations when law enforcement capacity is overmatched or stretched

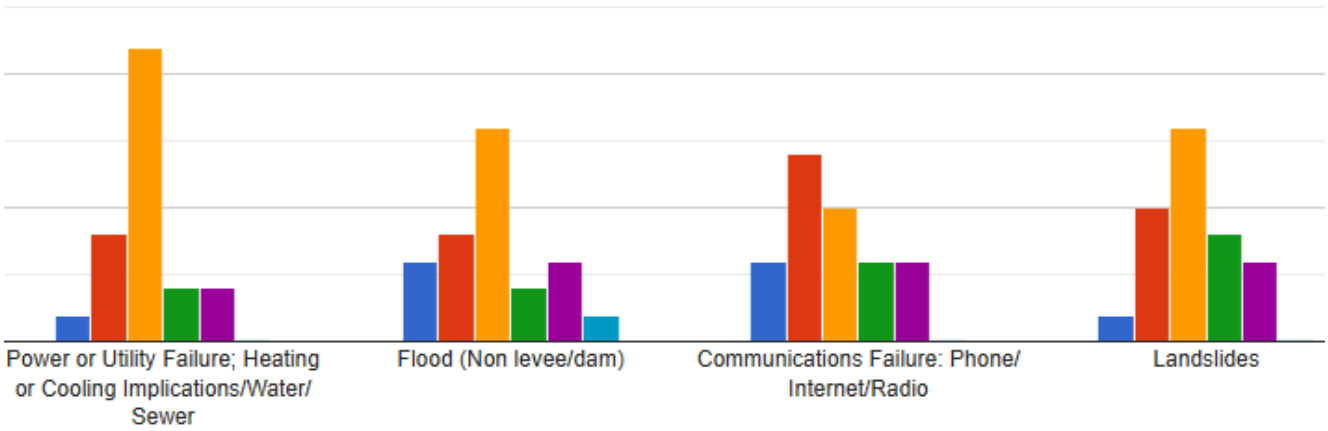


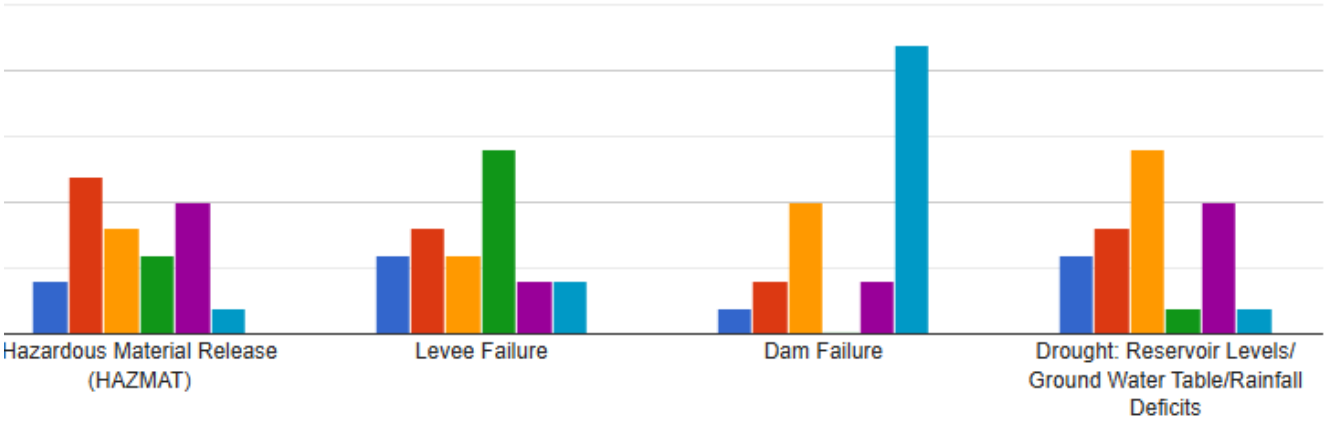
Severity Scale Defined:

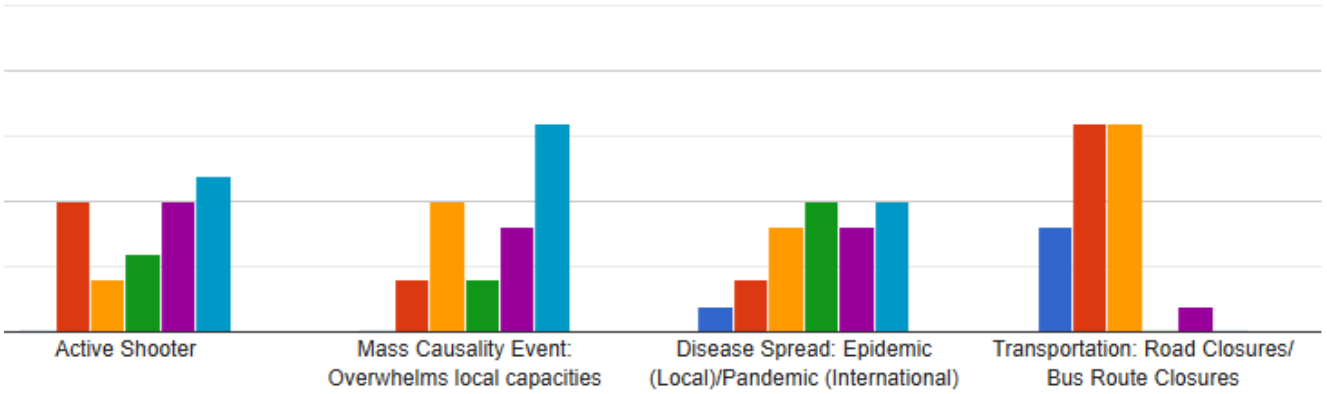
Human Impact:

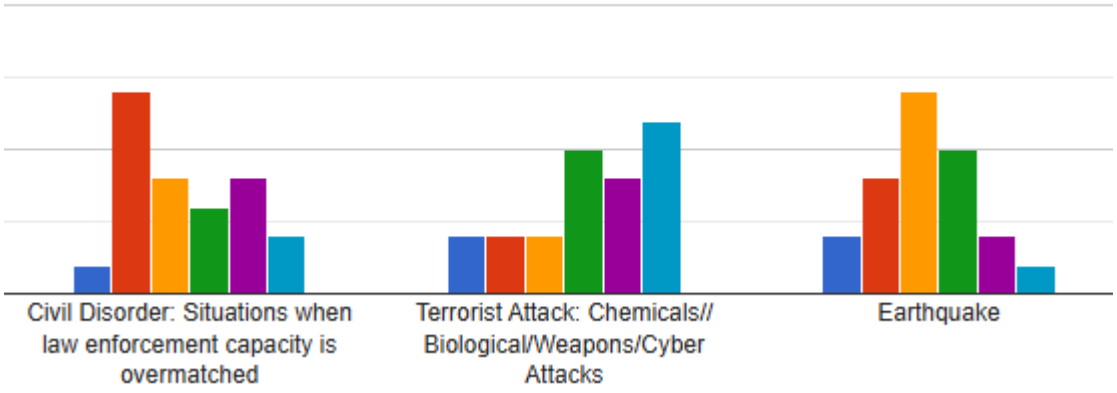
Question 3: What frequency would you ascribe to the following on a scale of 1-6?





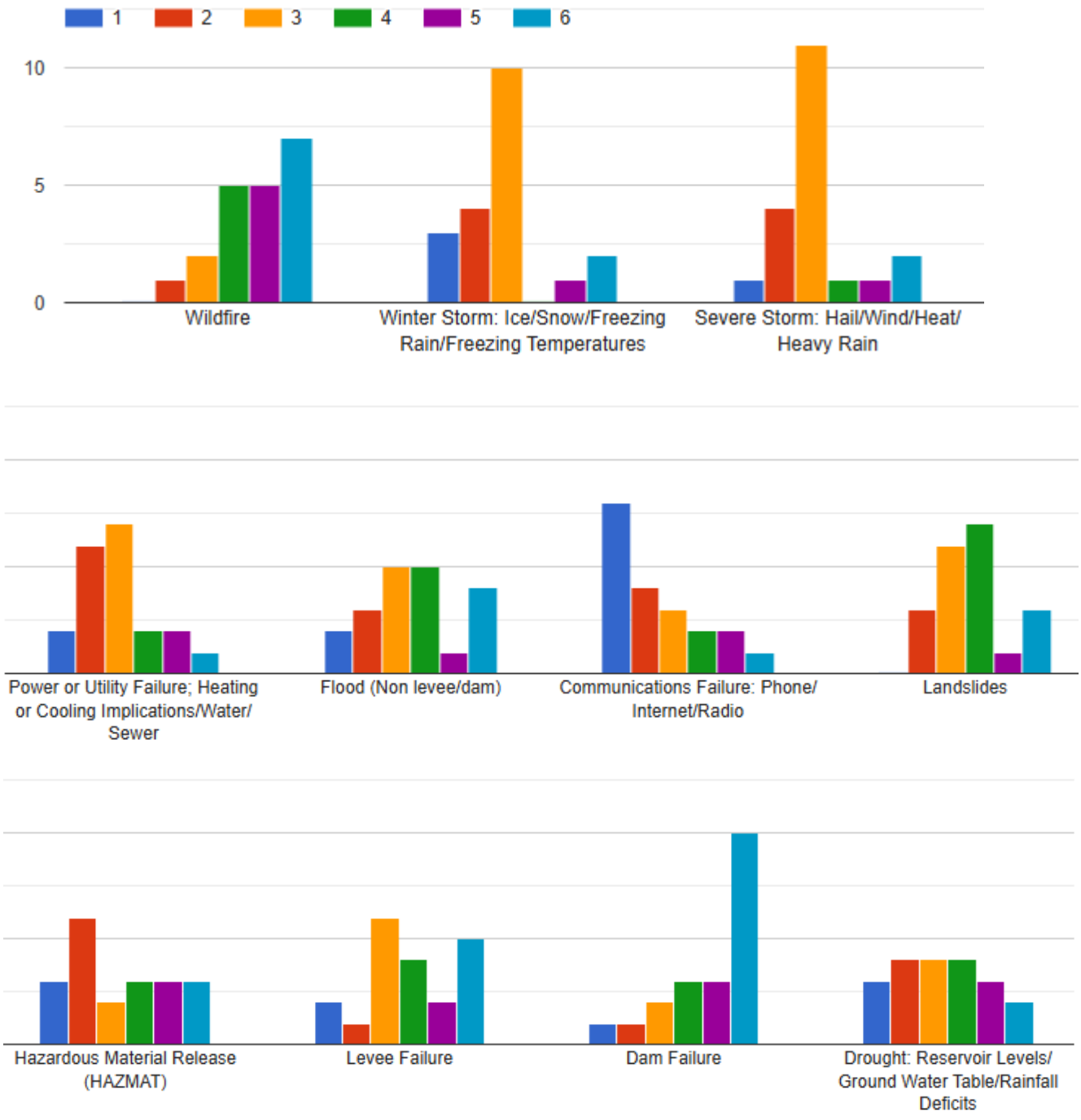

Hazardous Material Release (HAZMAT)
Levee Failure
Dam Failure
Drought: Reservoir Levels/ Ground Water Table/Rainfall Deficits

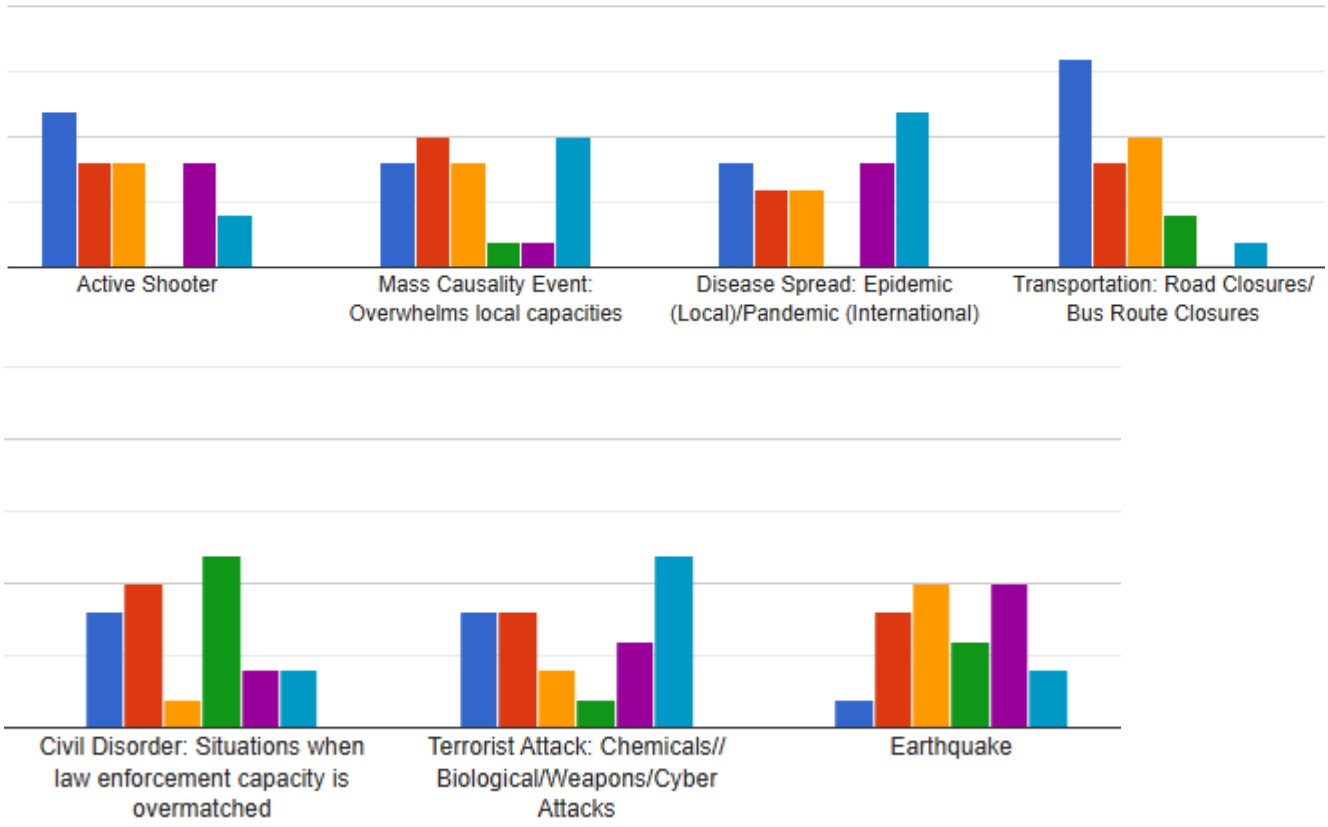

Active Shooter
Mass Causality Event: Overwhelms local capacities
Disease Spread: Epidemic (Local)/Pandemic (International)
Transportation: Road Closures/ Bus Route Closures


Civil Disorder: Situations when law enforcement capacity is overmatched
Terrorist Attack: Chemicals// Biological/Weapons/Cyber Attacks
Earthquake

Property Impact:

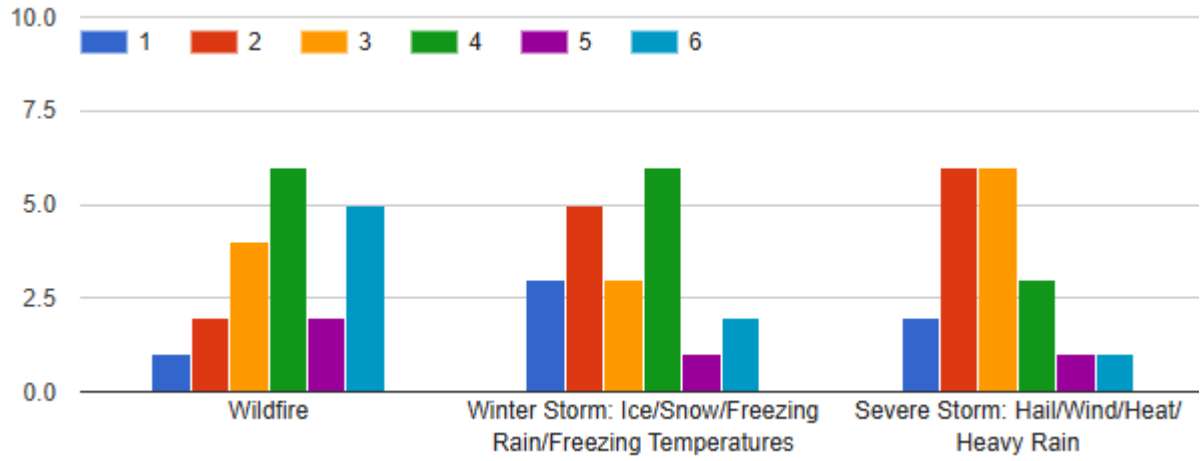
Question 4: How severe would the human impact of the following be on a scale of 1-6?

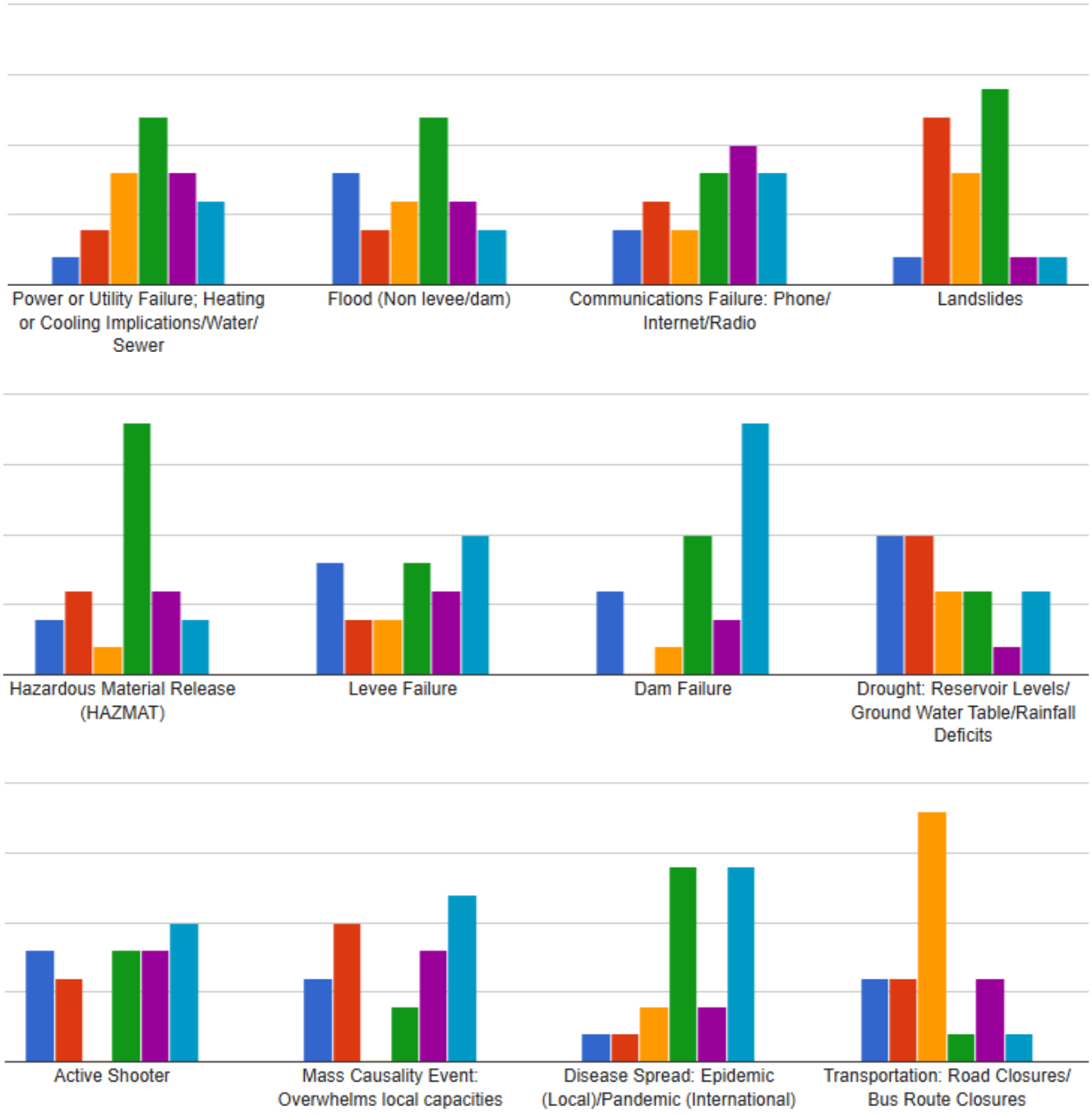


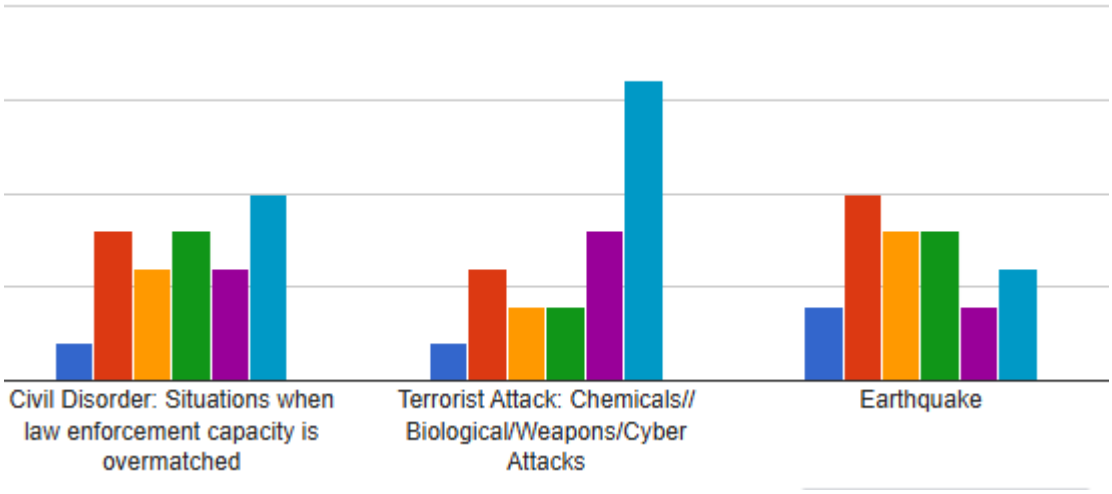


Business Impact:

Question 5: How severe would the Business impact of the following be on a scale of 1-6?

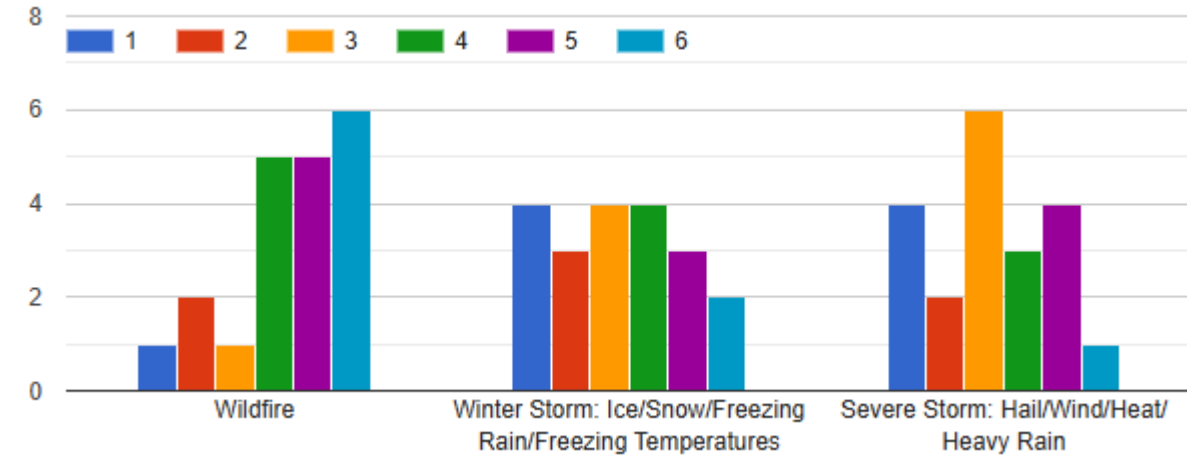


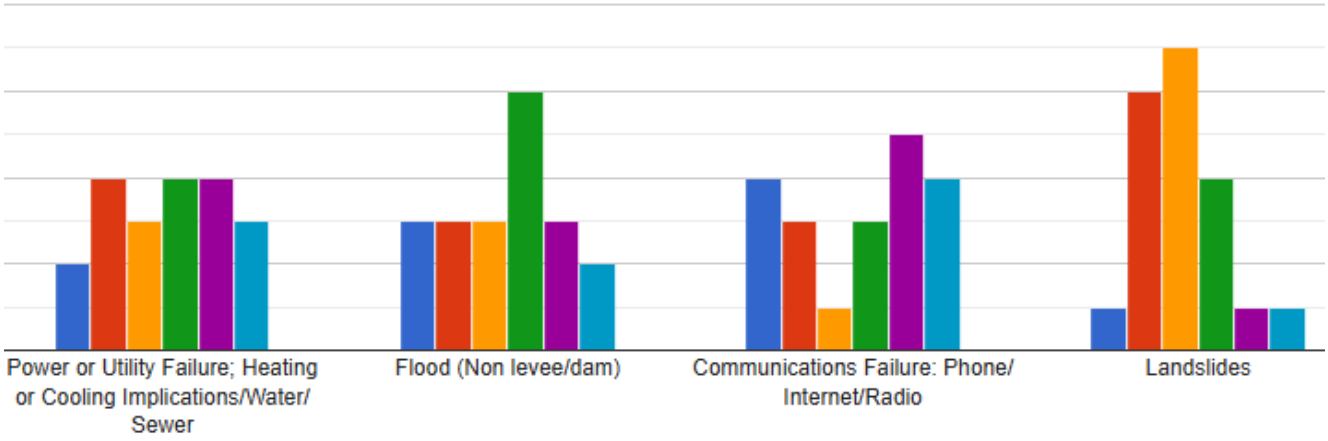

Power or Utility Failure; Heating or Cooling Implications/Water/ Sewer
Flood (Non levee/dam)
Communications Failure: Phone/ Internet/Radio
Landslides
Hazardous Material Release (HAZMAT)
Levee Failure
Dam Failure
Drought: Reservoir Levels/ Ground Water Table/Rainfall Deficits
Active Shooter
Mass Causality Event: Overwhelms local capacities
Disease Spread: Epidemic (Local)/Pandemic (International)
Transportation: Road Closures/ Bus Route Closures

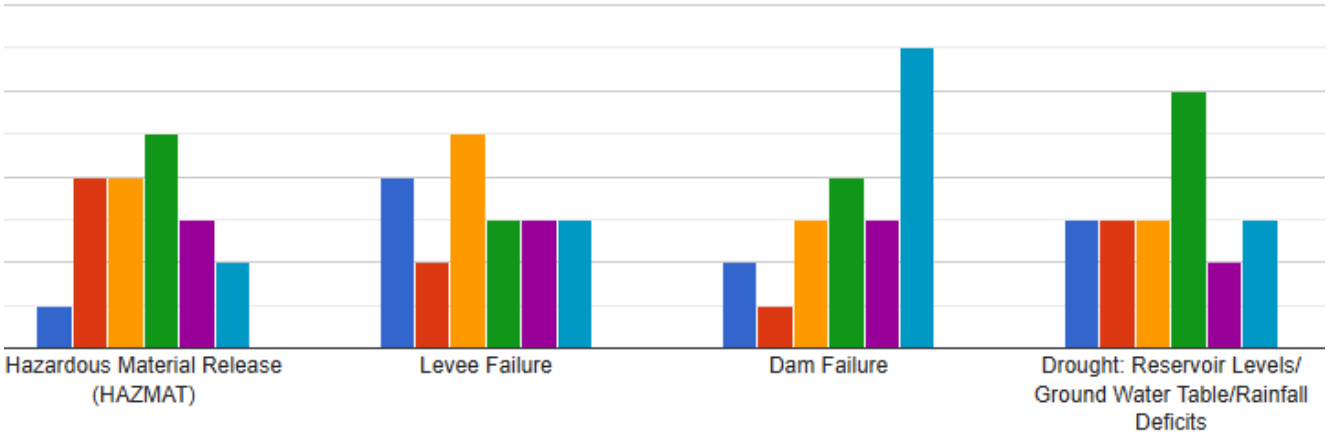


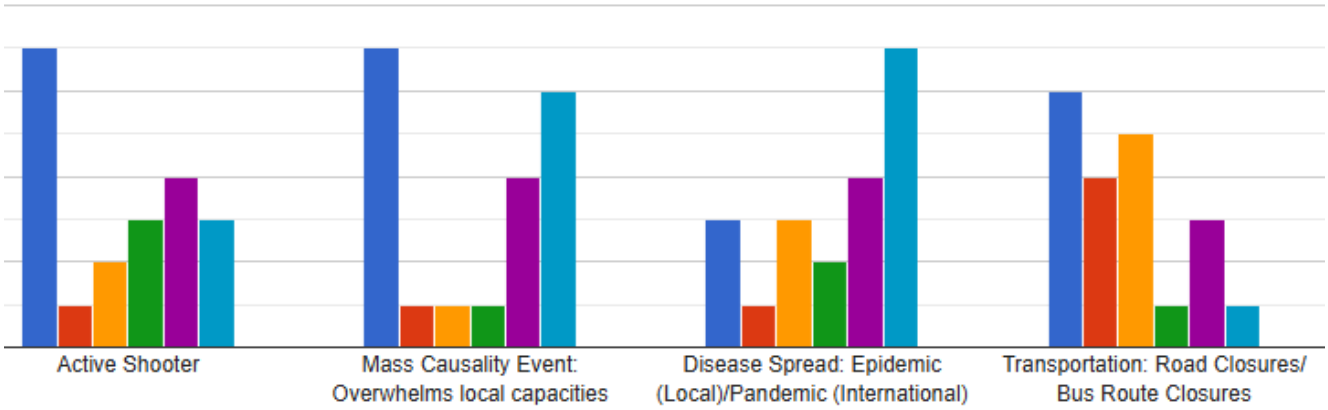
Resource Impact:

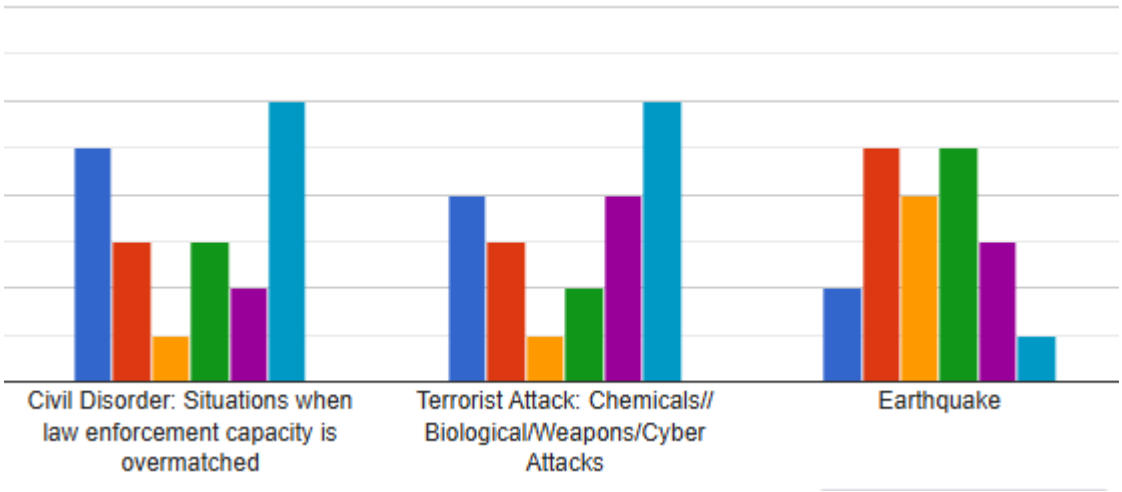
Question 6: How severe would the Resource impact of the following be on a scale of 1-6?






Hazardous Material Release (HAZMAT)
Levee Failure
Dam Failure
Drought: Reservoir Levels/ Ground Water Table/Rainfall Deficits


Active Shooter
Mass Causality Event: Overwhelms local capacities
Disease Spread: Epidemic (Local)/Pandemic (International)
Transportation: Road Closures/ Bus Route Closures


Civil Disorder: Situations when law enforcement capacity is overmatched
Terrorist Attack: Chemicals// Biological/Weapons/Cyber Attacks
Earthquake

Appendix 2 – Future Plan Update Guidelines

The Nez Perce Tribe sets public involvement as a top priority and believes that public awareness is key to the mitigation process. Continued public involvement will be accomplished through the dissemination of information from multiple channels. The plan will be available on the Emergency Management's website for review, along with notification of plan update meetings and updates on the progress of mitigation activities. It is the goal of the HMP Committee to develop a web-based interactive map that will allow the public to view their risk and vulnerability from a given hazard. Distribution of informative brochures through mailings, and the hosting of a booth at public events with information regarding mitigation efforts homeowners can do on their own to become more resilient to disasters.

Suggested Agenda Items for the Annual Plan Update or Following a Declared Disaster:

- Update historical events record based on any events in the past year.
- Review county profile and individual community assessments for each hazard and note any major changes or mitigation projects that have altered the vulnerability of each entity.
- Add a section to note accomplishments or current mitigation projects.
- All action items in Chapter 5 will need to be updated as projects are completed and as new needs or issues are identified.
- Address Emergency Operations Plans; how can the two plans be dovetailed to make them work in unison? Specifically, how to incorporate the Tribes Emergency Operation Plan into the action items for the NHMP.
- Work through the Planning Update Evaluation Worksheet to identify areas of the plan that need to be addressed.
- Address how the public will be given the opportunity to provide feedback on the annual updates.

During the third year following the adoption of the plan an agenda item addressing funding for updating the plan should begin. Allow one year for grant writing and funding, and an additional year for the plan update process. Start the renewal process in the third year allows time to receive funding and complete the update with the goal of never having an outdated plan.

Worksheet to assist in Identify Potential Items Requiring Updates or Review:

Table 21) Hazard mitigation plan update evaluation worksheet.

Plan Section	Considerations	Explanation
Planning Process	Should new jurisdictions and/or districts be invited to participate in future plan updates?	
	Have any internal or external agencies been invaluable to the mitigation strategy?	
	Can any procedures (e.g., meeting announcements, plan updates) be done differently or more efficiently?	
	Has the Planning Team undertaken any public outreach activities?	
	How can public participation be improved?	
	Have there been any changes in public support and/or decision-making priorities related to hazard mitigation?	
Capability Assessment	Have jurisdictions adopted new policies, plans, regulations, or reports that could be incorporated into this plan?	
	Are there different or additional administrative, human, technical, and financial resources available for mitigation planning?	
	Are there different or new education and outreach programs and resources available for mitigation activities?	
	Has NFIP participation changed in the participating jurisdictions?	
Risk Assessment	Has a natural and/or technical or human-caused disaster occurred?	
	Should the list of hazards addressed in the plan be modified?	

Plan Section	Considerations	Explanation
	Are there new data sources and/or additional maps and studies available? If so, what are they and what have they revealed? Should the information be incorporated into future plan updates?	
	Do any new critical facilities or infrastructure need to be added to the asset lists?	
	Have any changes in development trends occurred that could create additional risks?	
	Are there repetitive losses and/or severe repetitive losses to document?	
Mitigation Strategy	Is the mitigation strategy being implemented as anticipated? Were the cost and timeline estimate accurate?	
	Should new mitigation actions be added to the Action Plan? Should existing mitigation actions be revised or eliminated from the plan?	
	Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update?	
	Are there new funding sources to consider?	
	Have elements of the plan been incorporated into other planning mechanisms?	
Plan Maintenance Procedures	Was the plan monitored and evaluated as anticipated?	
	What are needed improvements to the procedures?	

Appendix 3 – Maps with Legends Included

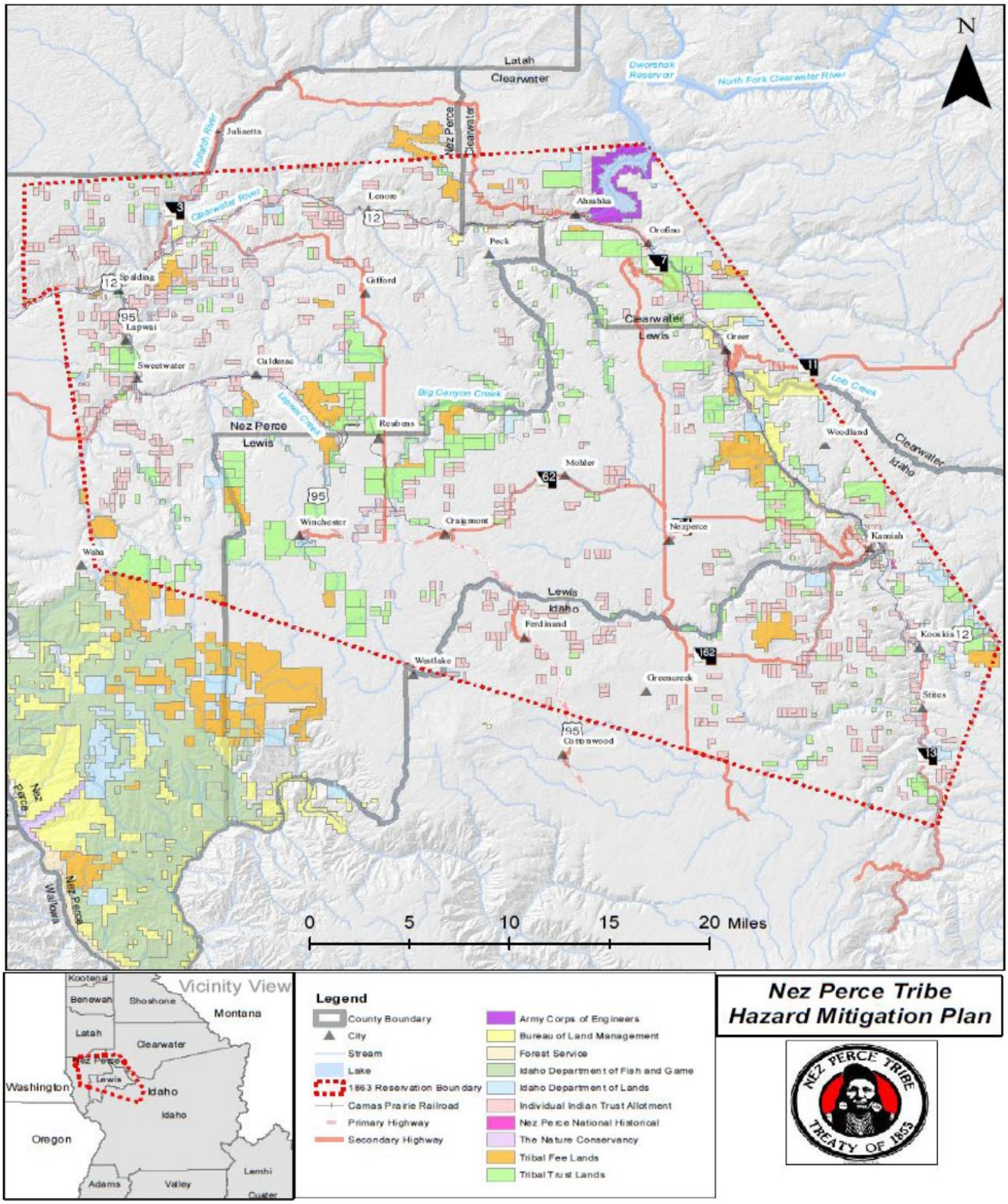
Appendix 3 contains the same maps that are included in the body of the document with the differencing being the inclusion of map legends, logos, and vicinity view pane. The following maps are included in this section of the document:

- **Location and Demographic Maps**
    - Historical Boundaries of the Nez Perce Reservation
    - Reservation Location and Land Ownership
    - Demographics
    - Land Use
    - Location of Residential Structures
    - Locations of Critical Facilities
    - Hazardous Materials Facilities and Transport
- **Natural Hazard Maps**
    - Wildfire Outlook through 2050
    - Wildfire Outlook through 2099
    - Potential Flood Area
    - Dams Located on the Reservation
    - Dam Failure and Inundation Zones
    - Locations of USACE Managed Levees on the Reservation
    - Landslide Risk Areas
    - Locations of Active Volcanos

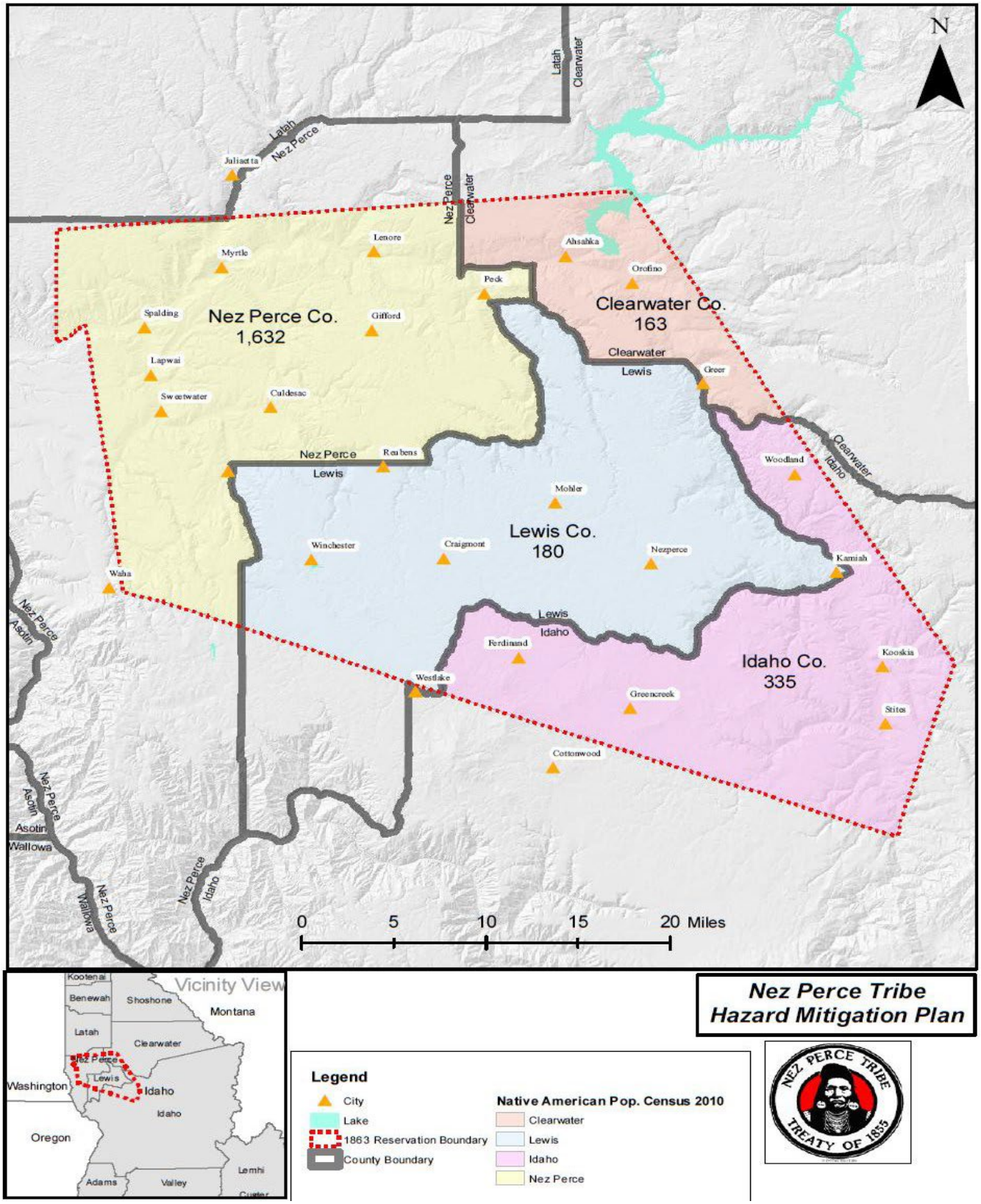
Historical Boundaries of the Nez Perce Reservation

Nez Perce Tribe
Hazard Mitigation Plan

Reservation Location and Land Ownership

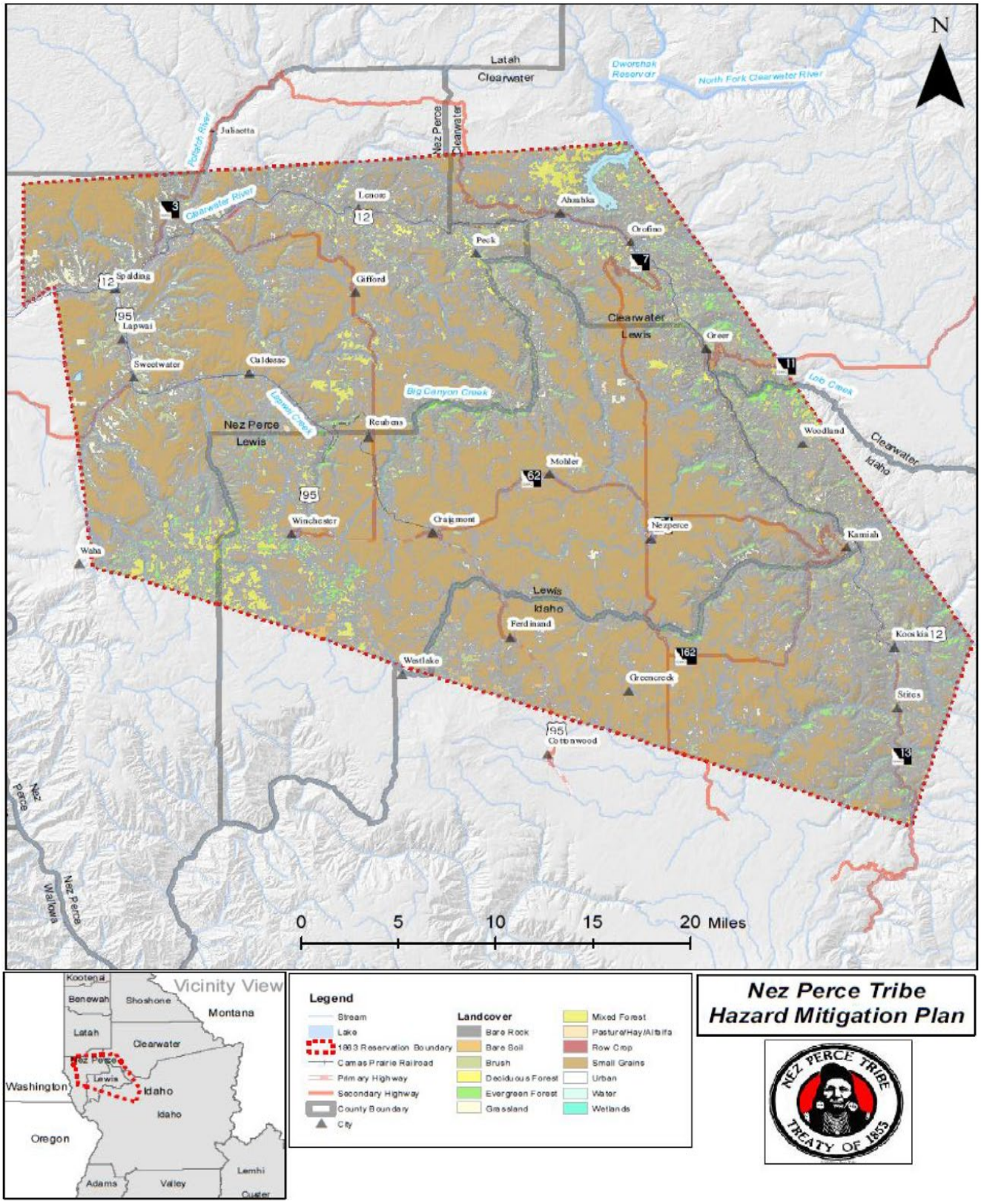


Demographic



Land Use

Land Use


N
Latah
Clearwater
Dworshak Reservoir
North Fork Clearwater River
Potlatch River
Juliaetta
Nez Perce
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Ahsahka
Orofino
Peck
Spalding
Gifford
Lapwai
Clearwater
Lewis
Greer
Sweetwater
Caldesac
Lapwai Creek
Big Canyon Creek
Lolo Creek
Nez Perce
Lewis
Reubens
Woodland
Clearwater
Idaho
Moliler
Winchester
Craigmont
Nezperce
Kamiah
Waha
Lewis
Idaho
Ferdinand
Kooskia
Westlake
Greencreek
Stites
Cottonwood
Nez Perce
Walla Walla
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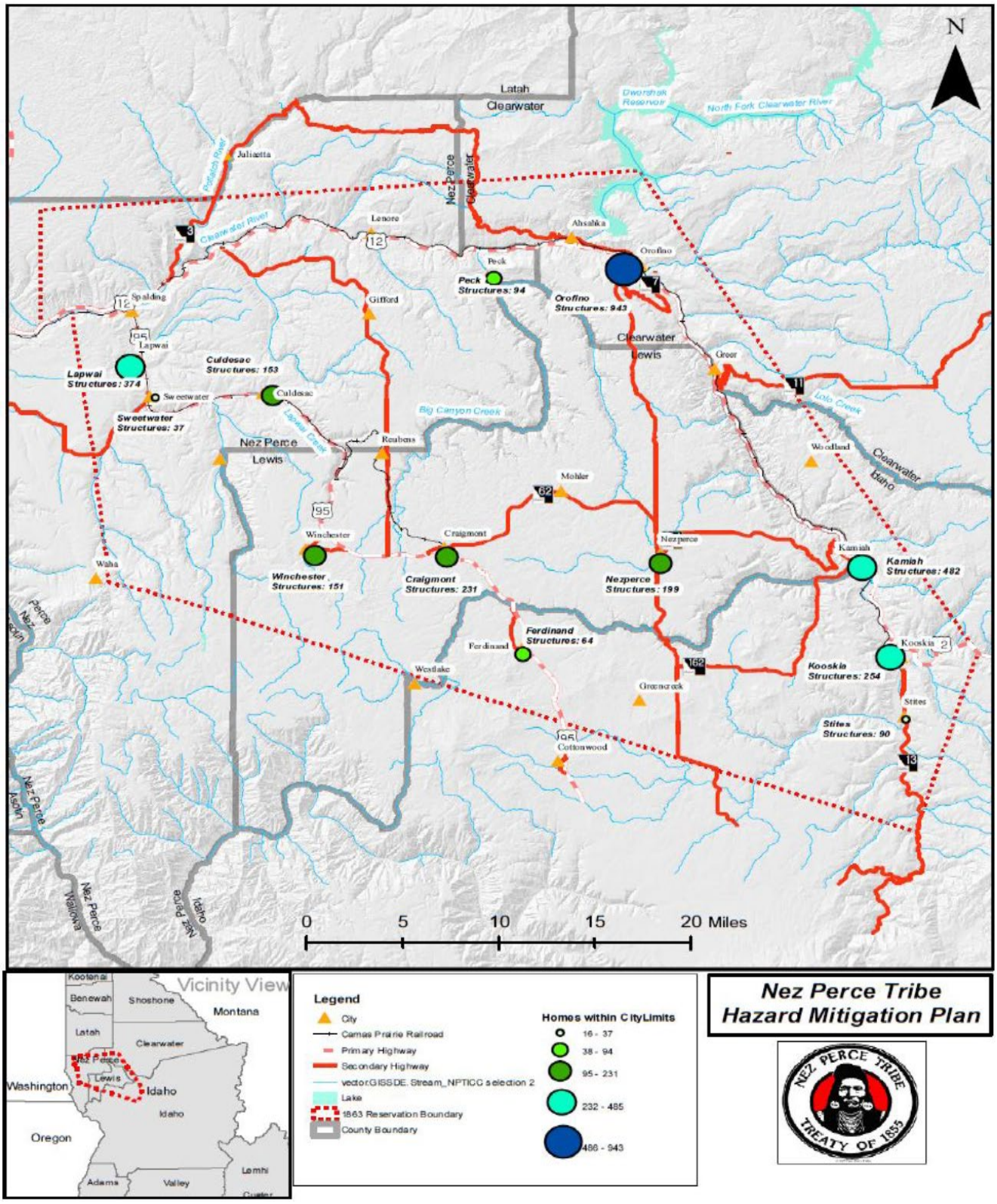
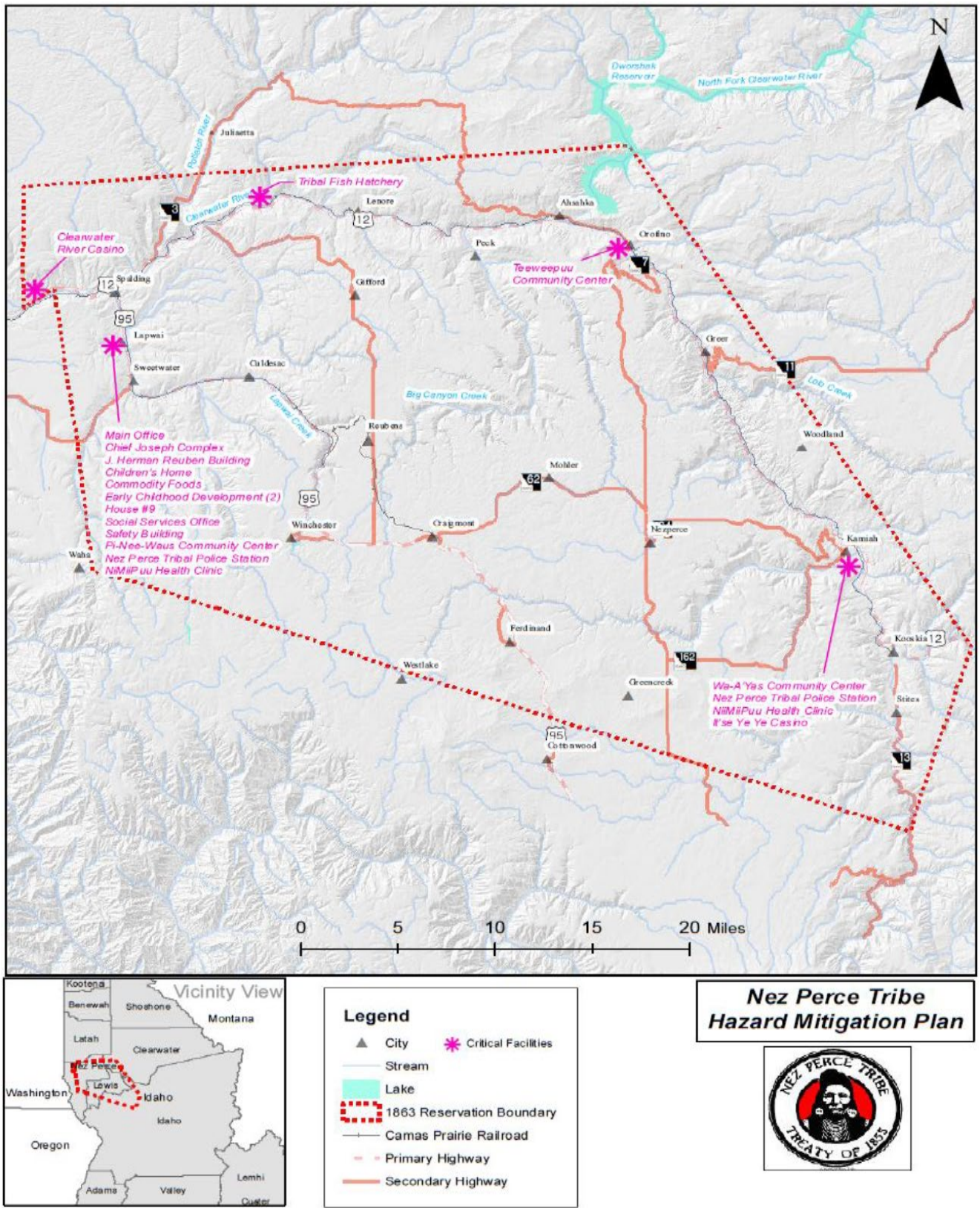
Kootenai
Benewah
Shoshone
Montana
Latah
Clearwater
Nez Perce
Lewis
Washington
Idaho
Idaho
Oregon
Adams
Valley
Lemhi
Custer
Legend
Stream
Lake
1863 Reservation Boundary
Camas Prairie Railroad
Primary Highway
Secondary Highway
County Boundary
City
Landcover
Bare Rock
Bare Soil
Brush
Deciduous Forest
Evergreen Forest
Grassland
Mixed Forest
Pasture/Hay/Alfalfa
Row Crop
Small Grains
Urban
Water
Wetlands
Nez Perce Tribe
Hazard Mitigation Plan
NEZ PERCE TRIBE
TREATY OF 1855

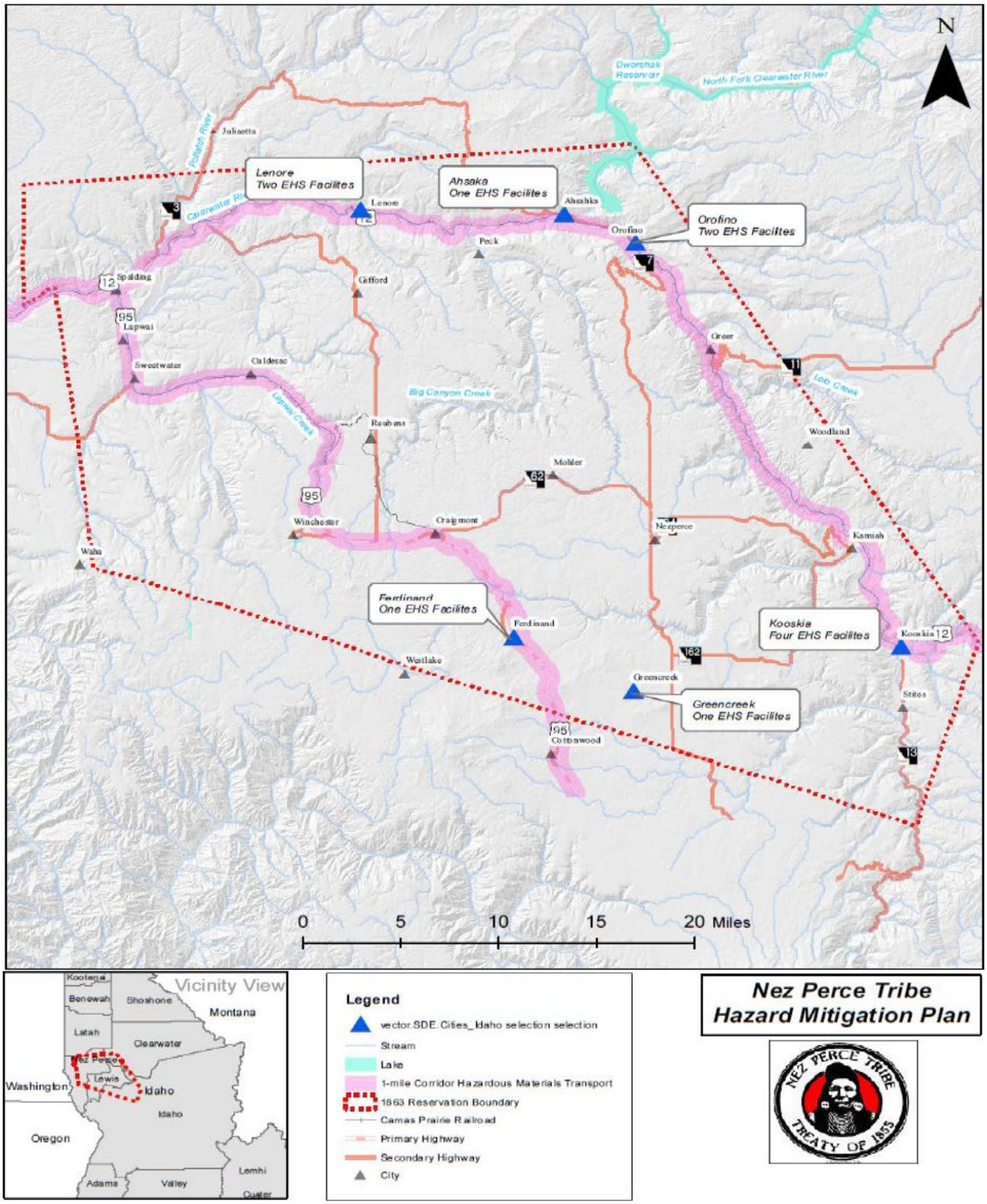
Location of Residential Structures



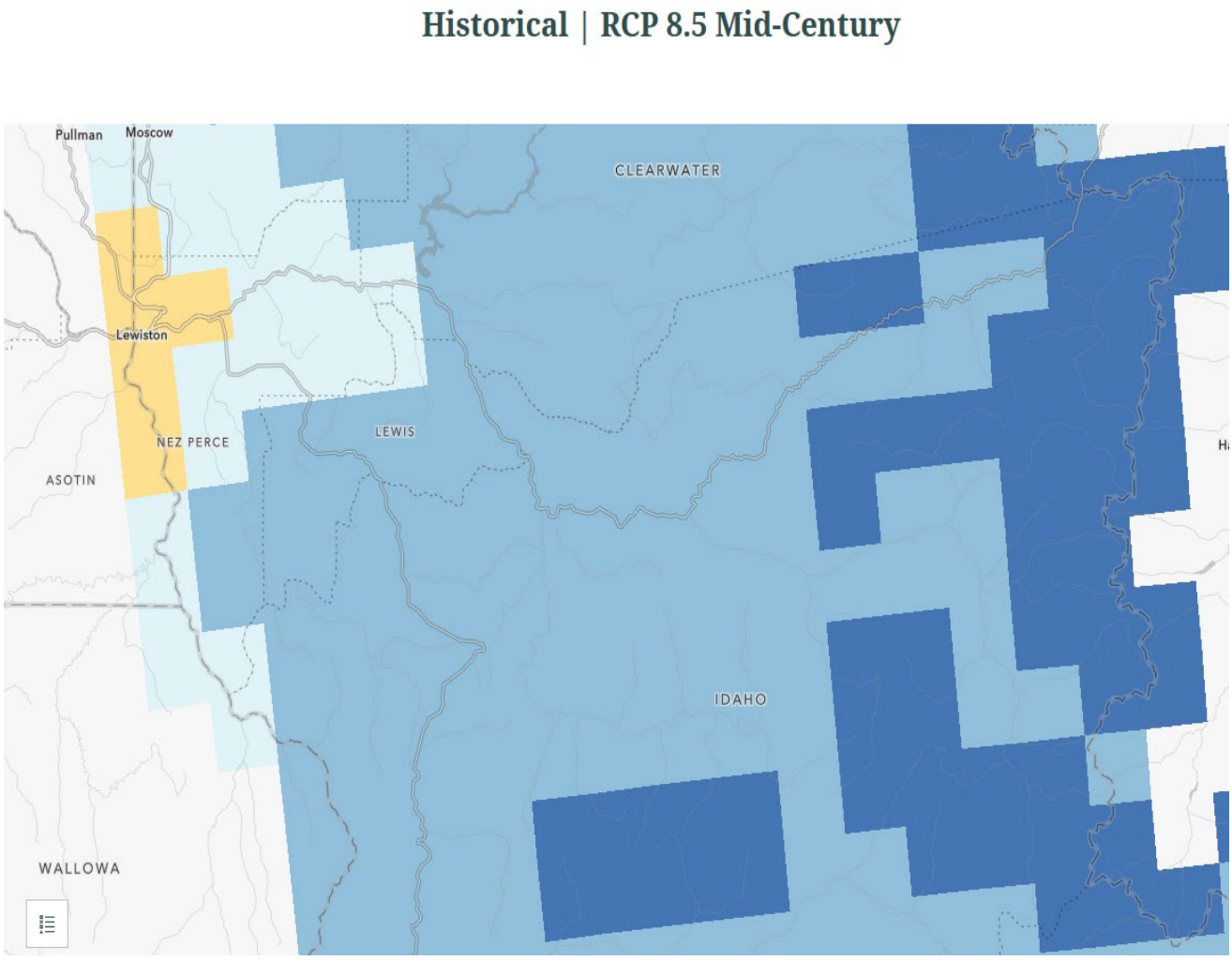
Locations of Critical Facilities



Hazardous Materials Facilities and Transportation



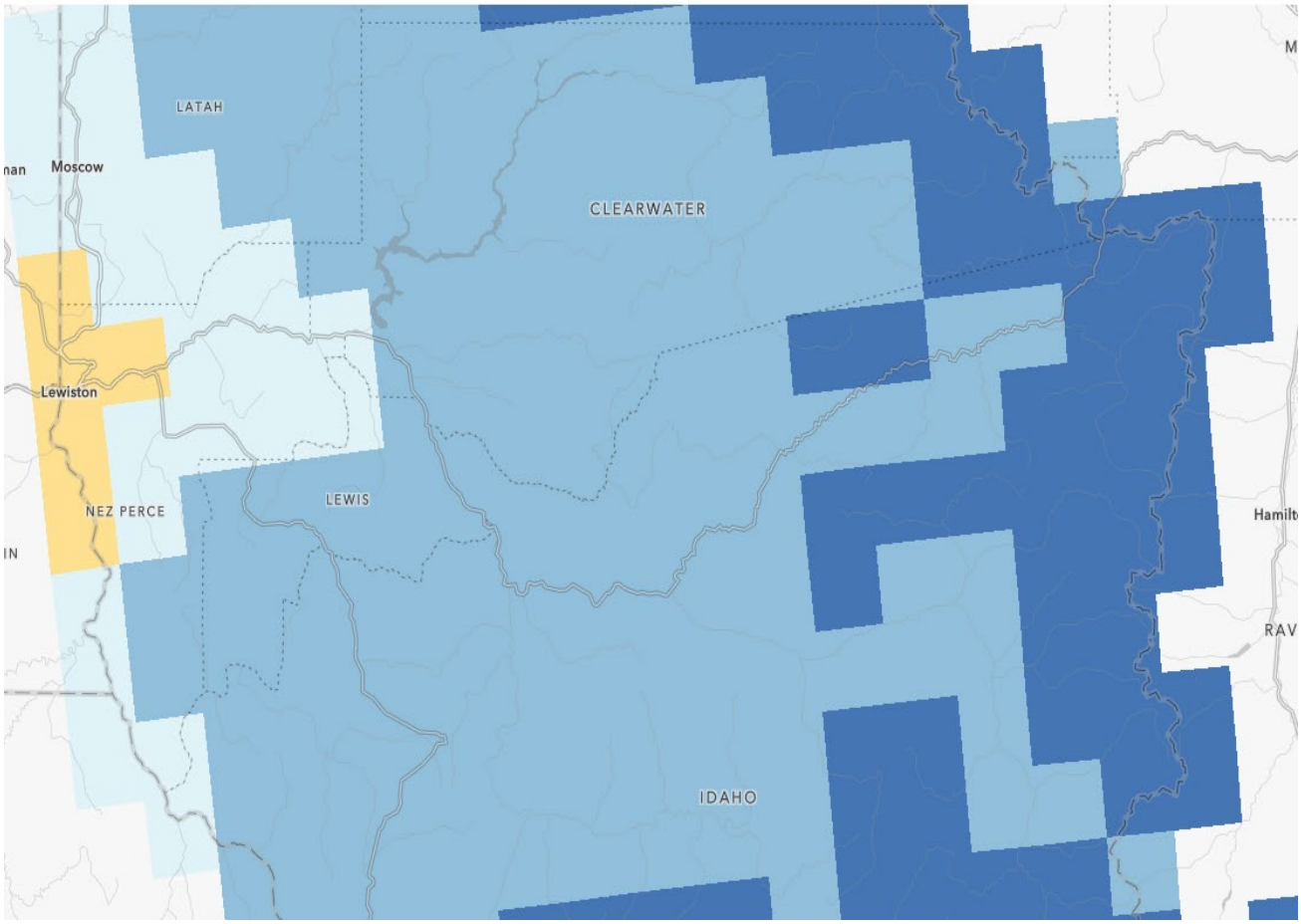
Wildfire Outlook through 2050



Nez Perce Tribe Hazard Mitigation Plan

Wildfire Outlook Through 2099

Historical | RCP 8.5 End-Century



Idaho Fire Weather

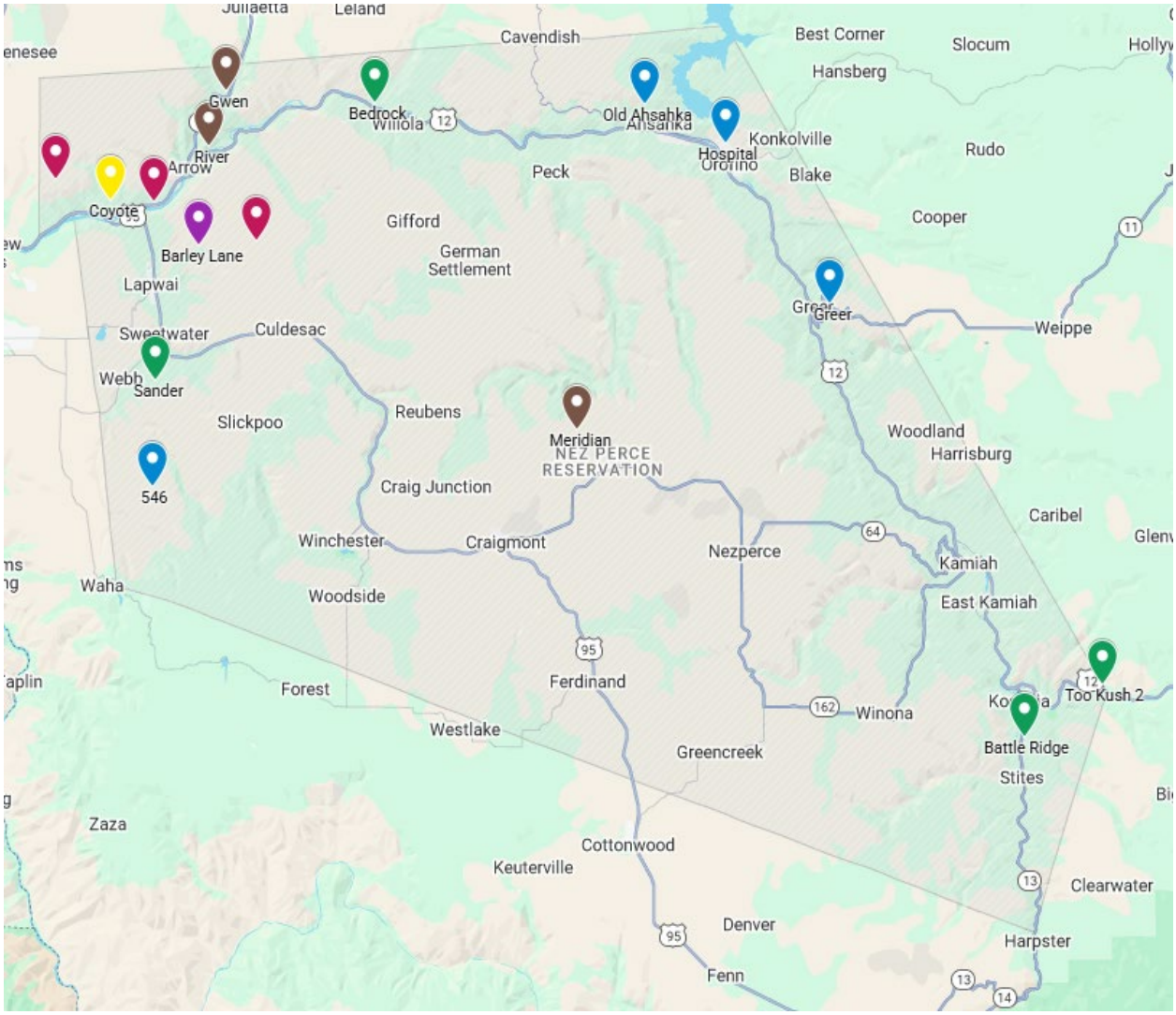
Historical: Summer Fire Weather Index

Historical: Summer Fire Weather Index

- > 40 - 45.193
- > 30 - 40
- > 25 - 30
- > 20 - 25
- > 10 - 20
- 6.336 - 10

Nez Perce Tribe Hazard Mitigation Plan

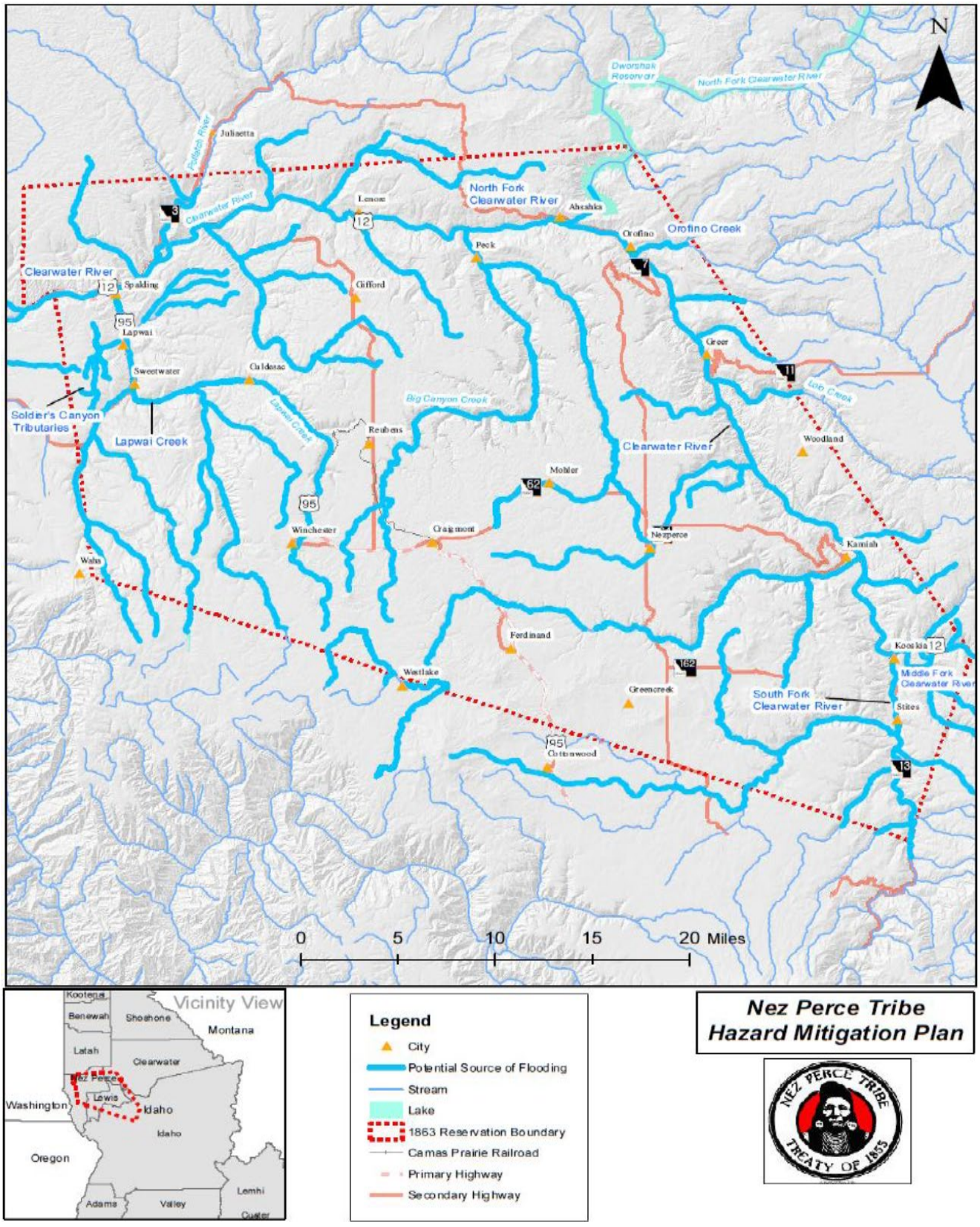
Wildfires 2019-2024



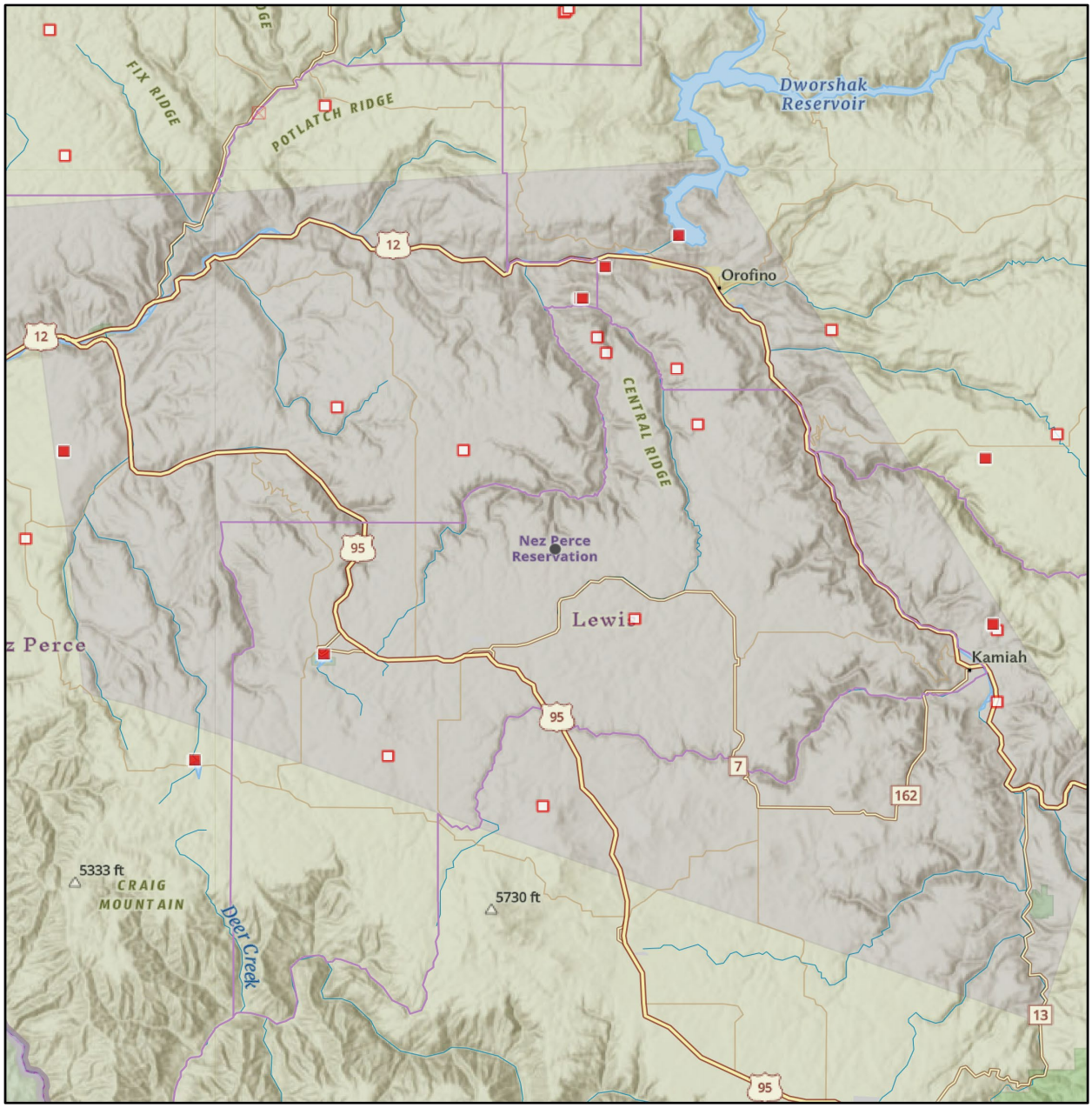
2019 2020 2021 2022 2023 2024

Nez Perce Tribe
Hazard Mitigation Plan

Potential Flood Areas



Dams on the Reservation

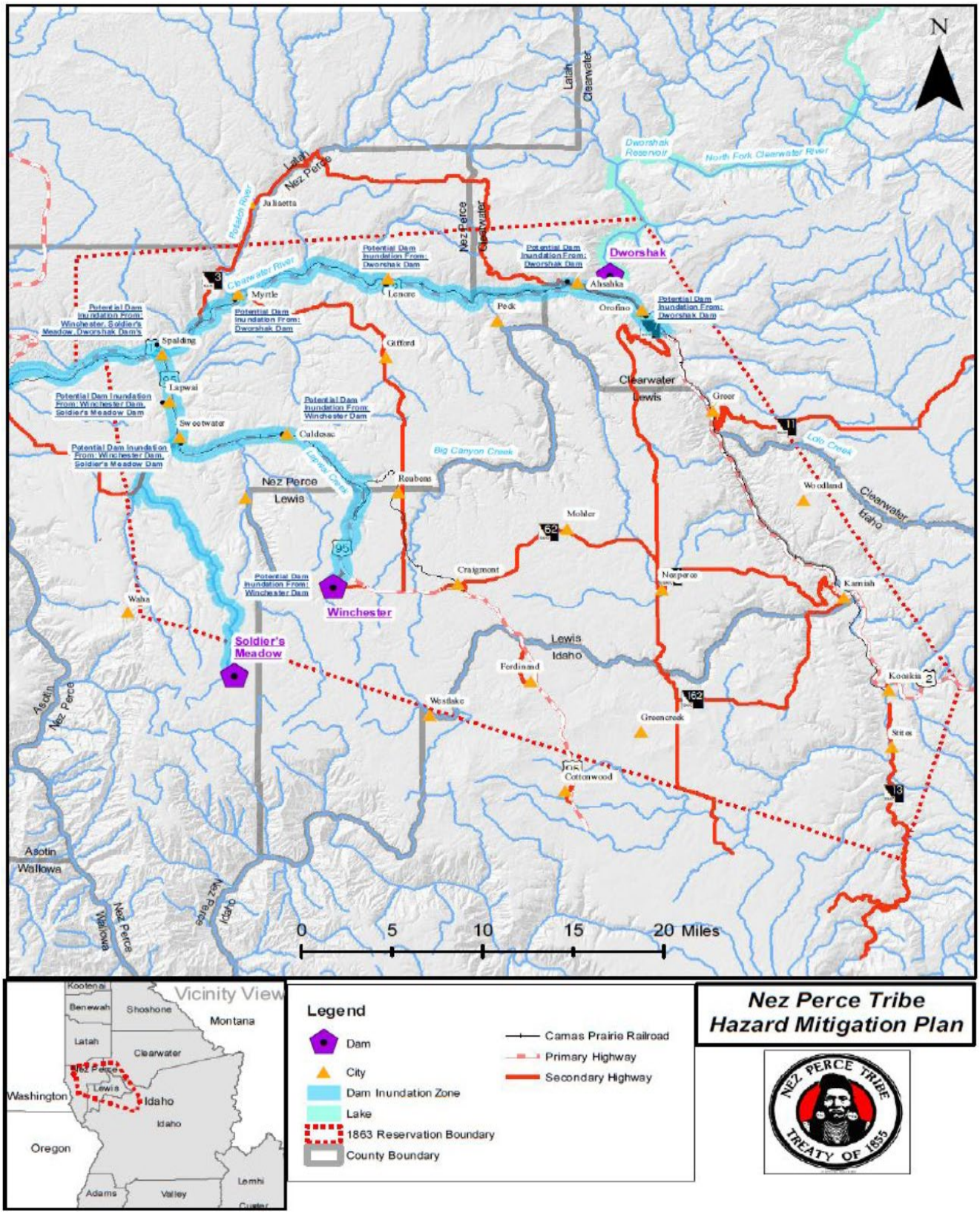


Dams:

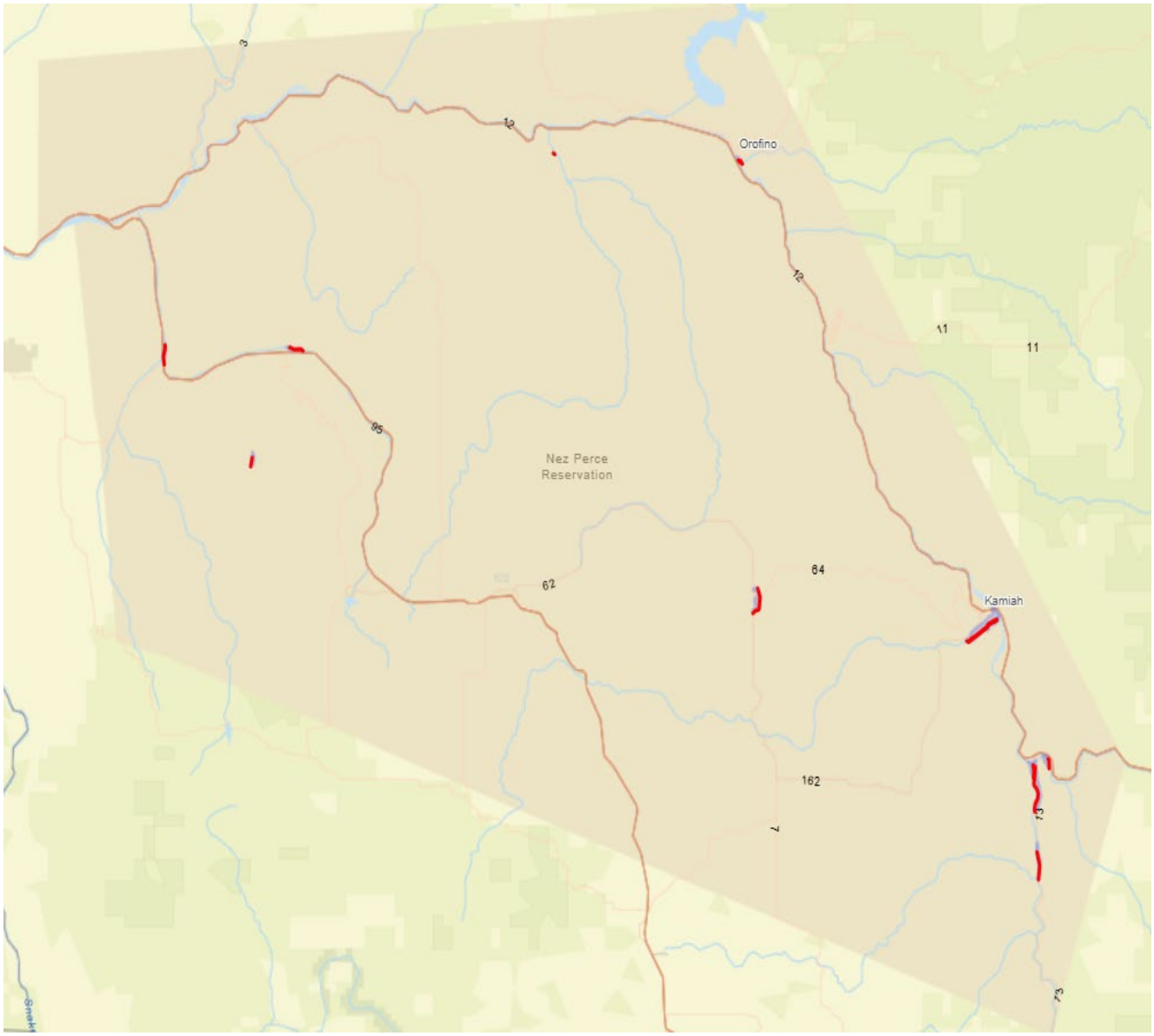
- **Regulated**
- **Non-Regulated**

Nez Perce Tribe Hazard Mitigation Plan

Dam Failure and Inundation Zones



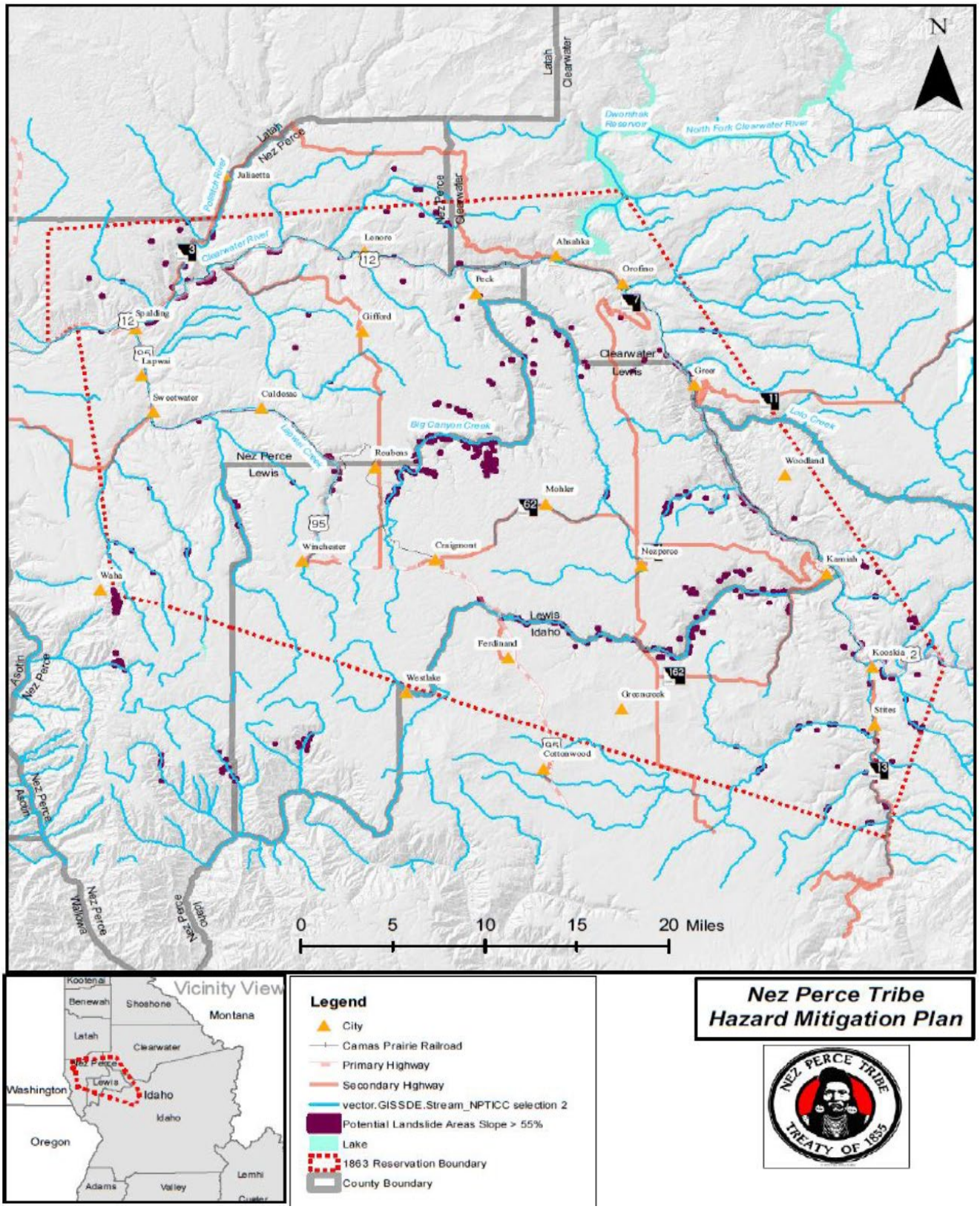
Locations of USACE Managed Levees on the Reservation



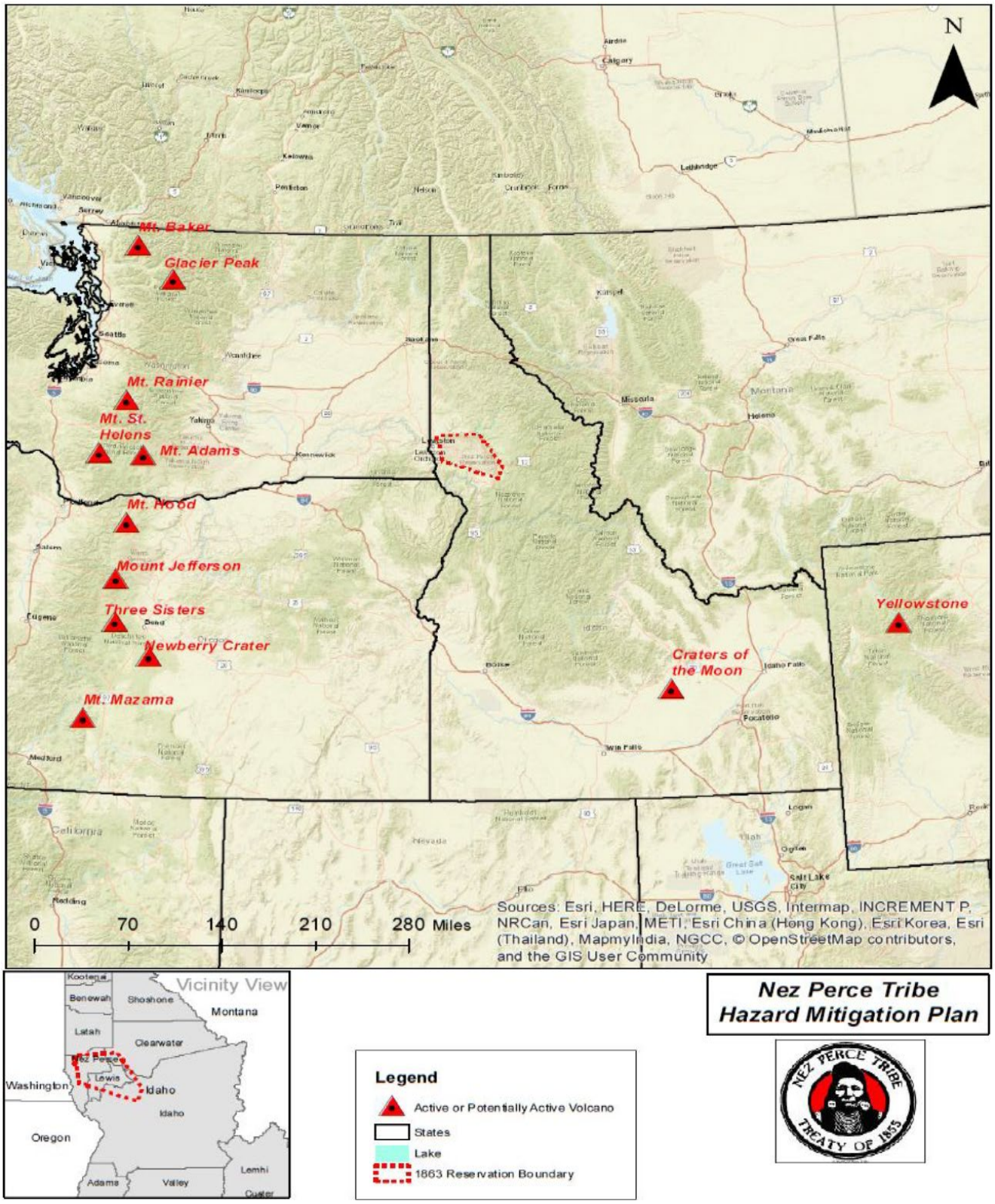
USACE Managed Levees: _____

Nez Perce Tribe
Hazard Mitigation Plan

Landslide Risk Areas



Locations of Active Volcanos



Appendix 4 – Climate Change Impact Report – Community Well Being:

(***It was requested by the Nez Perce Emergency Manager to add a copy of a Chapter from a Nez Perce Climate Change Report.***)

Chapter 10: Community Well-being – Socioeconomics, Public Health, Air Quality, Emergency Management, and Extreme Events

Introduction

Community well-being is an essential component of adaptive capacity, especially considering the differences in vulnerability among different groups of people (Hardy, et al., 2018). It is generally accepted that Indigenous peoples tend to be more vulnerable to the impacts of climate change than many other communities. Additionally, they face unique and inequitable challenges to their well-being. This is due, at a foundational level, to sociocultural determinants of health and well-being that are the lingering effects of colonization, "which has and continues to result in losses of culture, autonomy, land, and health" (Durkalec, Furgal, Skinner, & Sheldon, 2015, p. 18).

"Tribal members have been and will be more impacted because of their culture and reliance on water resources (fish, mussels, sweat houses, etc.) and wildlife." (Survey respondent)

Community well-being is difficult to define. For Indigenous communities, it tends to include health (including access to resources and support that facilitate healthy lifestyles), the ability to be out on the landscape, engagement in ancestral practices, maintaining safe homes/communities, and retaining access to necessary resources (health, education, economics). It's important to note that many Indigenous definitions of health or well-being go beyond individual physiological indicators to include the broader community. Even the definition of community often goes beyond humans to other beings who share a group's ancestral homelands.

An essential part of community well-being for the *Nimíipuu* is the opportunity to engage in ancestral practices, to be on the landscape, and uphold those foundational relationships that identify who they are as a people. Reduced access to these places and practices has had major impacts on their well-being, and these will likely be exacerbated with continuing climate change effects.

"I was filling my medicines, and I thought, why am I taking all these? And every time I go to the clinic or something else happens to me… Here's another pill. You know, and then I think… They never used to live like that. You know. And I can imagine, you know, back then- course maybe diabetes was never known till we start eating, you know, eating foods that wasn't good for our bodies" (Mary Jane Souther).

The elders we interviewed expressed significant concern about losing cohesion in extended social/family networks, which supports community well-being in general. They spoke to how they relied heavily on family and social networks growing up to meet material, social, cultural, and spiritual needs. "Families used to go together, and we'd get wood. Families went together to pick huckleberries. Families went together to go dig. It was all family-oriented and it's not that anymore. Everybody's for themselves" (Mary Jane Souther).

Culturally, these community connections are also important because knowledge, often specialized ancestral knowledge, is passed through families. Elders see less opportunity to share with and teach younger generations in the contemporary community. They also expressed concern about the health of tribal elders in general, because of a lack of access to ancestral resources. They pointed to their perceived breakdown in social and family connections as fewer people providing for their elders, making it harder for them to access culturally significant foods.

The survey results also pointed to general concern about the community's health and well-being. Eighty-nine percent of people surveyed said they are concerned or very concerned about the impacts of climate change on human needs and well-being in general (Table 0-1). Survey Result f

Table 0-1. Survey Results from Community Well-being and Climate Change Survey

Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Human needs and well-being in general		
	Freq.	**%**
Not at all concerned	2	1%
Somewhat concerned	4	2%
Neutral	19	8%
Concerned	86	37%
Very concerned	119	52%
Total	**230**	**100%**

This chapter is based on mostly literature review, census data, the history/context of the Nez Perce Tribe, and the survey and interview data that the Climate Change Program has collected. A formal community well-being assessment has not been conducted, but if completed, could contribute to the development of a *Nimíipuu*-specific definition of health and well-being, as well as the development of appropriate Indigenous Health Indicators (Donatuto, Campbell, & Gregory, 2016; Donatuto, Grossman, Konovsky, Grossman, & Campbell, 2014).

Socioeconomics

Climate change increases risk and unpredictability for socioeconomic systems at all scales (Hsiang, et al., 2017). While the Northwest region in general may see fewer economic impacts than other parts of the United States, models show that the effects of climate change tend to exacerbate existing inequality and is expected to cause losses to infrastructure, productivity, and property as well as impede economic growth generally (Hsiang, et al., 2017; USGRCP, 2018). Additionally, certain costs are expected to rise, such as energy, food, water, import and export prices, and recovery efforts after disaster events (USGRCP, 2018). Communities whose economies rely on natural resources (i.e., agriculture, tourism, recreation fisheries) are particularly vulnerable. This does not bode well for Tribal people whose economies integrate accessing traditional resources with contemporary financial systems (Jantarasami, et al., 2018).

People in poverty are more vulnerable to climate change impacts for a variety of reasons, including higher exposure to hazards and inequitable access to resources and information (Hardy, et al., 2018). Overall, Native American populations have higher poverty rates than the general American population at 25% (Krogstad, 2014). In 2021, eighteen percent of Native Americans who reside on the Nez Perce Reservation lived under the poverty threshold, compared to 11.6% of the general population living within the Tribe's reservation boundaries (Headwaters, 2023; U.S. Department of Commerce, 2016).

Poverty on and around the Nez Perce Reservation is a major component of the potential for vulnerability and adaptive capacity. High levels of poverty increase vulnerability to extreme events and on-going impacts but can be addressed through economic development. The Tribe is intentional

about what kinds of economic efforts they invest in, the opportunities provided to community members, and increasing the community's resilience through these efforts and opportunities.

The Nez Perce Tribe is a major economic player in the region and state of Idaho (Peterson, 2015). They are one of the top three employers in north-central Idaho and contributed and estimated $192.2 million to the state's economy in 2013. Their revenues have historically depended significantly on tourism, recreation, and agriculture. Gaming provides a large portion of their income and relies on people traveling through the area. This can be problematic as weather patterns change, as one survey participant pointed out, "More severe winters caused casino revenues to go down."

Likely because of this cultural and economic context, 74% of survey takers said they are concerned or very concerned about the impacts of climate change on the economy (Table 9-1). This is not as high as other resources we asked about but does indicate that many tribal members and staff recognize the connections between climate change and socioeconomic vulnerability.

Table 0-2. Survey Responses for Impacts to Economy

Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Economy		
	Freq.	**%**
Not at all concerned	8	3%
Somewhat concerned	9	4%
Neutral	43	19%
Concerned	94	41%
Very concerned	77	33%
Total	**231**	**100%**

It is important to note that these surveys were done prior to the start of Nimíipuu Energy and the Covid-19 Pandemic. The Tribe started Nimíipuu Energy in 2000, a Tribe-to-Tribe Utility Cooperative focused on a singular goal: replacing the hydropower generated by the four Lower Snake River dams with 5,300 Megawatts of alternative power. The Tribe's solar initiatives brought new careers and a new industry to this area that is increasing their sovereignty, energy independence, resilience, and revenue (Hardy, et al., 2018). (Krogstad, 2014) (Headwaters, 2023; U.S. Department of Commerce, 2016).

The National Climate Assessment notes that rising atmospheric temperatures, sea level rise, and extreme weather events are expected to damage critical infrastructure and property, and impact labor productivity and trade (USGRCP, 2018). The local economy depends upon trade of agricultural commodities and is not immune to economic impacts in other parts of the world (Hatzenbuehler & et al., 2021). Climate related disasters are expected to reach hundreds of billions of dollars by the end of the century and have already had economic impacts in Idaho. Fire suppression costs during the 2015 drought exceeded 72 million in the State of Idaho. According to the Intertribal Timber Council, the 2015 CRB wildfires destroyed 1.2 billion board feet of tribal timber, scorched 338,110 acres on the

Colville, Yakama, Spokane, Nez Perce, and Warm Springs Reservations, and had a fire suppression cost of $97 million (Corrao, et al., 2016). In addition, the funding needed for rehabilitation after the 2015 fires was $55 million dollars. The cost of the Clearwater Complex Fires in 2015 was not limited to fire suppression and restoration. Floods and mudslides that followed those fires resulted in emergency declarations and federal disaster declarations due to heavy rains, flooding, mudslides and landslides that damaged roads, culverts, and houses.

"The impacts of [the 2021 heatwave]event were catastrophic, including hundreds of attributable deaths across the Pacific Northwest, mass-mortalities of marine life, reduced crop and fruit yields, river flooding from rapid snow and glacier melt, and a substantial increase in wildfires—the latter contributing to landslides in the months following." (White, Anderson, Booth, & et al., 2023)**.**

The Idaho Climate-Economy Impacts Assessment examined the climate vulnerability of different sectors of economy including Agriculture, Recreation and Tourism, Human Health, Energy, Land, and Infrastructure. The Tribe has already experienced impacts in each of these sectors. Closed fishing seasons, reduced tourism, lost crops, wildfires, floods, closed highways, and air quality events have impacted Tribal enterprises, cancelled important events, and caused hazards for subsistence activities. Closed fishing seasons and wildfires cause considerable harm to the economy in northern Idaho (IDFG, 2004) (Caudiill et al. 2021) (Hicke & Latta, 2021) (Goodwin, 2023). Increasing hazards including floods, drought, avalanches, wildfires, and smoke events present economic risks due to reduced visitation, the costs of fire suppression and damages, and closed recreation areas. Reductions in snowpack are particularly impactful, not only for winter recreation, but also for summer and spring rafting and fishing. (Maas & Himes, 2021). Importantly, subsistence hunting, fishing, and gathering are not customary parts of traditional economic analyses but are priceless to Tribes in the CRB (Flores & al., 2017).

Community Health

Indigenous communities are considered a "population of concern," at particular risk for health issues exacerbated by climate change impacts (Gamble, et al., 2016) (Cisse & et al., 2022). . Many Nez Perce Tribal members, like members of other Indigenous groups, depend on their environment for subsistence and live in geographically isolated communities. This makes them "likely to experience greater exposure and lower resilience to climate-related health effects" (Gamble, et al., 2016). To date, climate impacts have already affected the health and well-being of many tribal members, as our survey participants and elders interviewed attested to.

Table 0-1Table 0-3. Survey responses regarding public health and climate change. There are several themes that came up both in our survey and interviews that align with major concerns about climate change impacts on human health. Eighty-two percent of people who took the survey said they are concerned or very concerned about the impacts of climate change on public health, including both physical and mental or emotional health (Table 0-3, Table 0-1) Table 0-3. All but one of the elders we interviewed mentioned serious concerns about the health of community members in the face of climate change. The US Global Change Research Program's 2016 Climate and Health Assessment provides a useful overview of these specific issues (USGRCP, 2016). Many of these issues are closely related to the topics discussed in other chapters in this assessment. Thus, this discussion will be limited to anticipated health impacts, rather than the evidence behind these specific impacts.

Table 0-3. Survey responses regarding public health and climate change.

Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Public health (physical and mental or emotional health)		
	Freq.	**%**
Not at all concerned	3	1%
Somewhat concerned	6	3%
Neutral	34	15%
Concerned	82	36%
Very concerned	106	46%
Total	**231**	**101%**

Temperature-Related Death and Illness

With increasing average temperatures, including nights that don't cool down, the likelihood for heat-related deaths and illness increases (USGRCP, 2016). This is especially true for vulnerable groups within communities, such as elders, children, people living near or under the poverty line, and people who work outdoors doing manual labor. In our interviews, some elders mentioned the potential for increased heatstroke, heat driven bloody noses, and other issues, especially while out doing physical labor such as agriculture or subsistence activities. Temperature extremes can also exacerbate chronic illnesses, such as cardiovascular and respiratory disease or diabetes (USGRCP, 2016). This is of particular concern to some Tribal members we spoke to, as the Nez Perce Tribe has the highest diabetes rate of the northwest tribes at 10.6% (Local Foods, Local Places, 2017).

The average days with temperatures above 86 °F are expected to increase dramatically by year 2099 (from 32 days to 65 - 87 days, and summer maximum daily temperatures are expected to increase from 80 °F to 86.7 – 92 °F on average (**Error! Reference source not found.**Figure 0-1). Overnight minimum temperatures are projected to increase from 6 to 10 °F on average, from the low to mid 50s to the low to mid 60s.

Notably, extreme heat is already causing public health emergencies. During the summer of 2021, the PNW experienced exceptional drought and extreme heat. This unprecedented heatwave included temperature anomalies 16 to 20 °C above normal, a ten-day period with daytime temperatures over 100° F in Nez Perce County and was attributed to excess heat related deaths in the PNW (White, Anderson, Booth, & et al., 2023).

The quality of housing and the types of heating and cooling systems vary across the reservation. Homes on the reservation and in the region often lack central air conditioning, rely upon wood heat for warmth in the winter, have poor insulation, and/or poorly sealed building envelopes. In addition, even if adequate ventilation can be used to cool off homes, the hottest days are often accompanied by wildfire smoke, eliminating the ability to cool down houses with open windows at night. This exacerbates the risk to human health from heat waves and is a key focal area for adaptation planning.

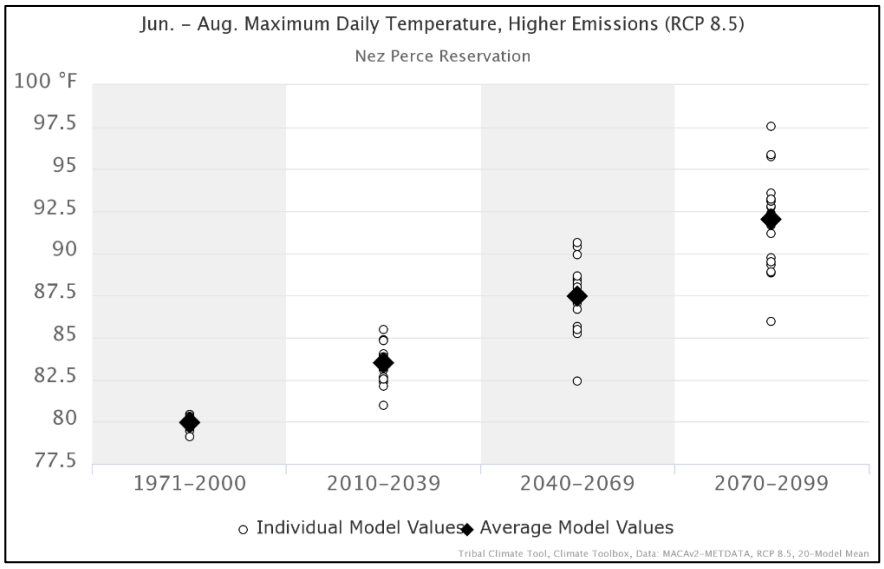


Figure 0-1. Projected Maximum Daily Temperature; June-August RCP 8.5.

Air Quality Impacts

Warming temperatures from climate change are expected to increase heat events, wildfires, smoke events, particulate matter and ozone levels (Yue, Mickley, Logan, & Kaplan, 2013) (USGRCP, 2016) (Cisse & et al., 2022). In addition to poor air quality because of wildfire smoke, the changing climate has impacted other air pollutants such as ozone and fine particulate matter, and airborne plant allergens such as pollen (USGRCP, 2016). As a result, maintaining air quality and protecting human health and the environment is likely to become more challenging in the future.

According to the Fourth National Climate Assessment, “airborne particulate levels from wildfires are expected to increase 160% by mid-century under a lower emissions scenario (RCP 4.5). Smoke events have already increased in severity and duration, and fire emissions of PM 2.5 are

projected to increase 50% in the Western United States from 2001-2010 to 2050-2059" (USGRCP, 2016) (Liu & et. al. , 2022). Ground-level ozone levels are also expected to increase under warmer climate predictions. (Perera & Sanford, 2011) (Yue, Mickley, Logan, & Kaplan, 2013) (Archer, Brodie, & Rauscher, 2019) (Isai, 2021) (BLM & USFS, 2018). Over the past decade, 2012, 2014, 2015, 2017, 2018, 2020, 2021, and 2022 were years dominated by significant wildfire smoke incursion events during the summer and early fall. During these years, PM2.5 24-hour average monitor readings often ranged from the Unhealthy category of the Air Quality Index (AQI) to the Hazardous level. Figure 0-2contains two photos illustrating the effects of wildfire smoke on visibility and the quality of air we breathe.

Even though Idaho had a relatively mild fire season in 2018, poor air quality impacted tribal members and businesses. Wildfire projections for the region suggest that the wildfire season will lengthen, average acres burned will increase, and air quality will be impacted for longer periods of time throughout the year in the future. In addition, decades of improvements in air quality are being undone by wildfire smoke (Childs & et al. , 2022).

These decreases in the quality of air can negatively impact people with respiratory issues. About 2,800 tribal members live on or near the Reservation. There is significant anecdotal evidence of high incidences of asthma, allergic rhinitis, and autoimmune diseases for tribal members. Community members surveyed and interviewed expressed significant concern about air quality, especially because of pesticides/agriculture, industry, wildfire smoke, and smog. One survey respondent said, “People are becoming sickly, there is hardly any time when the air is sufficiently clear in the summers, fire and erosion cause a lot of breathing problems for all.” Another mentioned personal impact, saying, “My daughter and I have allergies, and so outdoor time is hard for us with air quality in the summers.” Some elders mentioned that they have seen air quality decrease in their lifetimes. Air qualities so bad. A lot of our people never had it affected their health. Affected a lot of people, which got asthma, which got some kind of airborne disease, you know. And it’s still happening today, you know” (Mary Jane Southern).

The Tribe’s Air Quality Program issues air quality advisories and burn bans and does preventative activities important for human health during smoke events. The Air Quality Program is actively engaged in climate planning at the Tribe and is an important source of capacity and expertise.

Figure 0-2. Photos from the same location in the Kamiah Valley comparing air quality degradation from a wildfire smoke event to a day with the standard level of air quality.

"This summer was really hot and dry. there was a lot of fires and filled the area with smoke. Our fishing this year was decreased by half, this big change affected my family because this summer was harder on my kids who have bad allergies and asthma and could not be outside long." Survey Respondent

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Vector-borne Diseases

Mosquitoes, ticks, and fleas often carry pathogens that pose risks to human populations. Climate change impacts, in combination with other factors, will likely "have both short- and long-term effects on vector-borne disease transmission and infection patterns, affecting both seasonal risk and broad geographic changes in disease occurrence over decades" (USGRCP, 2016) (Cisse & et al., 2022). Because of the number of other factors that also influence these patterns, it is difficult to predict how these effects will play out over time. Warmer days and the expanding range of disease vectors may increase human exposure to these pathogens.

Water-related Illness

Climate change is expected to impact freshwater resources in ways that will increase exposure to water-related illnesses, such as diseases caused by pathogens and illnesses related to water-

borne toxins from harmful algae and cyanobacteria or chemicals from runoff (USGRCP, 2016). Water resources are put at higher risk for contamination by extreme precipitation events. Increased runoff from extreme precipitation events may increase the likelihood of chemical contamination of freshwater sources, and water infrastructure will face strains as its capacity is exceeded (USGRCP, 2016).

From a cultural perspective, impacts to the river systems in the ancestral lands of the *Nimíipuu* could be truly devastating. The risks listed above have implications for ecosystems, species, and human health. Contamination from pathogens and toxins is especially worrisome for subsistence fisherman, and tribal members who consume significant amounts of fish Tribal members have long established relations with many of the beings who populate the river systems, including the salmon and lamprey they rely on for food and ceremony. Any impact to these relatives is also an impact to the *Nimíipuu* cultural identity. In addition, many tribal members live near river systems and thus are put in increased danger of flood events and cascading effects from potential infrastructure failure.

Please see the Water Chapter of this assessment for more information. The Tribe's Water Resources Division provides important capacity for water quality planning at the Tribe, and almost all the work the Division does plays a role in climate change mitigation, adaptation, and resilience.

Food Safety, Nutrition, and Distribution

Climate change impacts on agriculture and food availability present significant challenges to the Tribe as they work toward developing their food sovereignty. Climate change will impact food availability, food safety, and distribution networks at global, regional, and local levels (USGRCP, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, 2016).

Rising temperatures and increasing extreme events increase the risk of foodborne illness by exposing foods to more pathogens and toxins (USGRCP, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, 2016). Human exposure to chemical contaminants in food will also likely increase, combined with potential lower nutritional value of food because of increasing atmospheric carbon dioxide levels. Transportation of food is also at risk due to increasing numbers of extreme weather events.

Mental Health and Well-being

Climate change impacts are currently and will continue to affect mental health. From increased stress to higher occurrences of clinical disorders, the mental and emotional well-being of communities is put at significant risk (USGRCP, 2016; Cunsolo & Ellis, 2018). Increased exposure to disasters and extreme events increases the likelihood of these negative impacts, and as people who identify with and rely on the natural world for material and spiritual

subsistence, Native peoples are specifically at a higher risk (USGRCP, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, 2016).

These mental health components do not exist in a vacuum. They take place in a historic, social, and cultural context of colonization, loss of ancestral lands and practices, and historic trauma. When asked how climate change impacts will affect them, one survey participant said these impacts will influence "our way of living as people from this area." Another said climate change impacts "reduce quality of life [and] restrict cultural traditions." The importance of this cannot be overstated.

"Ecological grief" is a concept that has recently gained momentum in the literature related to climate change and mental health (Cunsolo & Ellis, 2018). Native peoples in the United States, including the *Nimíipuu*, are no strangers to the emotional and spiritual impacts of the loss of place and relations in the more-than-human world. Climate change-related loss threatens to compound this, and the grief response felt by many tribal members.

"All I know is that we are greatly impacted as a tribal people. We can pass our knowledge to the next generation - but if we do not some way preserve this land for our future, what will we have to pass on?" Survey Respondent

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Extreme Events

Climate change increases the likelihood of exposure to extreme events, which puts communities at risk both from physical harm during the event, and during "disaster preparation and post-event cleanup" (USGRCP, 2016). In addition to potential for death and injury, exposure to extreme events can exacerbate underlying medical conditions and greatly impact mental health. Some events can disrupt infrastructure, such as roads and bridges, blocking access to essential recovery resources, and reducing the resilience of a community. The Tribe has already seen how these types of extreme events can impact their community (floods, drought, fire, landslides) and have updated the Tribe's Emergency Management Plan. This section details how the unique topography, pattern of development, and locations of infrastructure on the reservation make the Tribe vulnerable to extreme events.

In the survey, respondents acknowledged the potential impacts of extreme events. Ninety-two percent were concerned or very concerned about extreme weather events, specifically flooding and storms. Ninety-six percent said the same about drought and heat (Table 0-4).

Table 0-4. Survey responses to questions about extreme events.

Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Extreme weather events: drought and heat		
	Freq.	**%**
Not at all concerned	2	1%
Somewhat concerned	3	1%
Neutral	6	3%
Concerned	66	29%
Very concerned	153	67%
Total	**230**	**101%**

Please look at the list below and use the scale to tell us how concerned you are about the impacts of climate change on each list item: Extreme weather events: flooding and storms		
	Freq.	**%**
Not at all concerned	3	1%
Somewhat concerned	5	2%
Neutral	10	4%
Concerned	64	28%
Very concerned	144	64%
Total	**226**	**99%**

Topography and Infrastructure

The reservation consists of a series of deeply dissected drainages with steep slopes with most of the development concentrated in canyon bottoms. Critical infrastructure, transportation networks, and population density are concentrated along watercourses on the Reservation (**Error! Reference source not found.Error! Reference source not found.**). The combination of topography, drought, wildfire, and extreme precipitation has already caused landslides and damaged housing, communications, energy infrastructure, and roads.

Transmission lines, major transportation arteries, housing, tribal facilities, fisheries facilities, and other critical infrastructure are located within or connected to canyons with steep slopes that follow watercourses in areas that have high wildfire and flood risk (Figure 0-4). The potential for evacuation bottlenecks due to washed out roads, vegetation on fire near roads, downed powerlines, or damaged vehicles clogging roads increases the potential for high consequence events. Limited cell service, rural broadband, and fire risk to cell towers are also concerning for emergency management. These factors compound the vulnerability of communities on the reservation and are serious considerations for emergency and infrastructure planning.

"All I know is that we are greatly impacted as a tribal people. We can pass our knowledge to the next generation - but if we do not some way preserve this land for our future, what will we have to pass on?" Survey Respondent

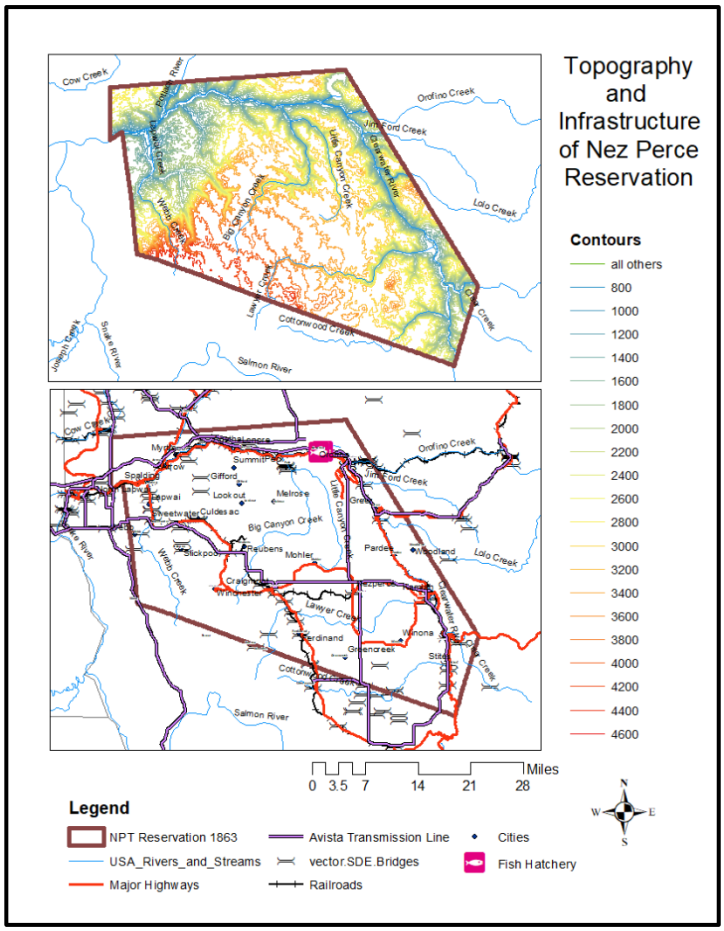

Figure 0-3. Topography and Infrastructure of the Nez Perce Reservation

Wildfire Risk

According to the USDA Forest Service Wildfire Risk to Communities website, the Nez Perce Reservation has a higher risk of wildfire than 79% of tribal areas and counties in Idaho, and 95% Nationwide. Wildfires on the reservation are also more likely to be high consequence with a greater risk to homes than 77% of tribal areas and counties in Idaho and 95% (nationwide) (Forest Service, 2023). While the Reservation has very high relative wildfire risk, the Tribe already has existing capacity and experience managing wildfires on the Reservation. The Nez Perce Tribe's Forestry and Fire Management Division plays an important role in planning for and fighting forest fires, restoring burned areas, emergency management, and fire safety education on the reservation. However, there is a serious funding shortfall for coping with wildfires in the Western United States as wildfires are becoming increasingly impactful and expensive to fight.

Fire suppression costs have increased from an average of $426 million per year from 1985 to 1999, to 1.7 billion per year since 2000. The most expensive fire suppression season was 2021 at 4.4 billion dollars, 2.4 billion more than the ten-year average from 2010 to 2020 (calculated from National Interagency Fire Center data). However, fire suppression is only one cost associated with wildfires, and these figures do not account for the cost of lost infrastructure, or the intangible costs of lives uprooted or lost. The cost of long-term health exposures to US wildfires from 2008 to 2012 was estimated to be $450 billion dollars (Fann & et al. , 2018).

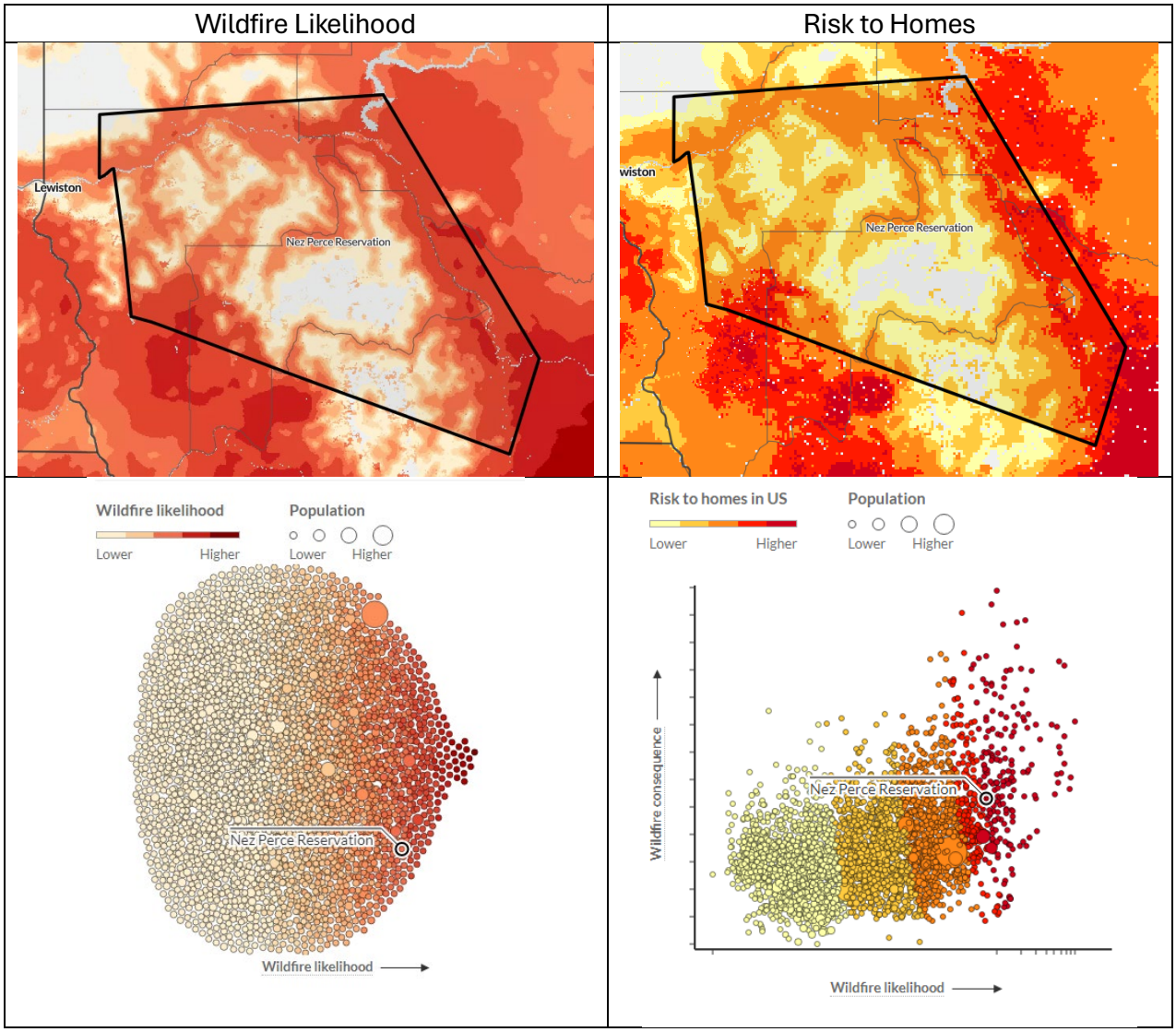

Figure 0-4. Nez Perce Reservation relative wildfire likelihood and consequence compared to other tribal areas and counties nationwide from the USDA Forest Service Wildfire Risk to Communities (Forest Service, 2023).

Wildfires were a key concern amongst survey respondents, and many people relayed personal anecdotes from experiences with wildfire. (NIFC, 2023). Notably, prior to 2015, no large fires were mapped on the reservation. In 2015, the Clearwater Complex, Fisher fire, and Municipal complex all started in August after an abnormally dry spring developed into a short period of extreme drought. Notably, prior to 2015, no large fires were mapped on the reservation. These

fires burned over 80,000 acres and 160 miles of streams, and destroyed and damaged homes and businesses in Kamiah, Idaho. In the months following the fires, culverts that were rated at risk for debris flows failed during rain on snow events and washed-out roads.

"We had to evacuate my mother's house a few years back. That was an eye opener for sure. How fast the fire grew, so fast and fierce. Little water in the rivers and much warmer temperature. It's effected the animals and vegetation making berry picking more difficult and later in the summer months." Survey Respondent

"I feel like we are 'threatened' more by natural occurrences such as floods and wildfires. Wildfires in particular have impacted my opportunity to spend time in the forests. Water issues have limited my opportunity to fish for salmon locally." Survey Respondent

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In 2021, the Bedrock Fire near Lenore, Idaho, started during an exceptional drought that developed after historic heatwaves parched landscapes that were already dry due to a lack of spring precipitation. From March through July, average rainfall is 6 inches for Lewiston, Idaho, but in 2021 only 1 inch of rain was recorded. Temperatures soared above 100 degrees for 11 days between June 26 and July 6, and the highest daily low temperature occurred on July 1.

Droughts and wildfires, followed by heavy precipitation events have caused mudslides into salmon streams, collapsed and washed-out culverts and roads, and impacted tribal housing and infrastructure. Figure 10.5 shows the progression of fire to flood that is occurring on the reservation. The following section describes the increasing risk of extreme precipitation.

2015 Clearwater Complex Fire near Kamiah Idaho showing steep slopes above river on fire. ID Farm Bureau, Flickr. 8/20/2015.

Flood from Rain on Snow Event. Tributary on Winchester Grade. 12/29/2017. WRD NPT

May 2, 2019. FEMA Flood Assessments- Adams Grade and Glenwood at Tom Taha Creek above Kamiah. WRD NPT

Figure 0-5. Photos of the progression of fire and precipitation that has resulted in lost homes, lives, and infrastructure.

Extreme Precipitation, Floods, and Infrastructure

Extreme Precipitation is defined as "instances in which the amount of rain or snow experienced in a location substantially exceeds what is normal." Change in total annual precipitation falling in the heaviest one percent of events by the late 21st century is from 20 to 40% for the north central Idaho (C2ES, 2023). For Lapwai, Idaho, ten year one hour events are projected to increase 11% on average by 2030, 14% by the 2050s, and more than 25% by the 2070s and 2080s. Events with return intervals of 2, 5, 10, 25, 50, and 100 years are projected to increase 13% on average by the 2050s (Projected Changes in Extreme Preciptation Tool, 2021).

The Reservation has a history of severe flooding. The Clearwater River exceeded bankfull (in Orofino) 33 times in a 56-year period from 1911 to 1967 (Nez Perce Tribe, 2019). The watersheds that overlap the Nez Perce Reservation are all considered to have high flood risk by the State of Idaho. Between 11-15 major flooding events have occurred in Nez Perce County between 2012 and 2017, and 6-10 have occurred in the other counties that overlap the reservation. The Tribe is also vulnerable to exceptional winter snow events. For example, in 2016, extreme and extended periods of snow closed roads, stranded livestock, caused accidents, and cut off communities due to a lack of adequate snow plowing equipment.

In addition, according to the National Climate Assessment, "Aging and deteriorating dams and levees also represent an increasing hazard when exposed to extreme or, in some cases, even moderate rainfall. Several recent heavy rainfall events have led to dam, levee, or critical infrastructure failures (USGRCP, 2018)." The Reservation has several high hazard dams and dam failure during exceptional rainfall or snowmelt is possible. Dworshak Dam, located in Orofino, Idaho, is considered a high hazard dam by the State of Idaho due to the volume of water it holds and the population centers downstream from the dam including Orofino, Sweetwater, Culdesac, Lapwai, and Lewiston, Idaho and Clarkston, Washington. The USACE has done several studies on the dam and downgraded its risk rating from moderate to low, but community concerns regarding the dam remain, as do issues with evacuation planning. Several other dams on the Reservation have high hazard potential including Winchester Dam, Soldier's Meadow Reservoir, and Reservoir A. The Winchester Dam nearly failed during the worst flood in recent memory in 1996. These dams are inspected regularly by the Idaho Department of Water Resources.

The Tribe has a long history of responding to and planning for flooding, and climate related flood hazards are including the 2019 Natural Hazard Mitigation Plan Update. For example, in the spring of 2019, the Reservation experienced flooding on the Clearwater River and some of its tributaries. These floods negatively impacted the property, economic well-being, and health of many community members. In response, the Tribe mobilized, declared a state of emergency, liaised with state officials, recruited volunteers for on the ground action, and conducted monitoring after the flood events. Following the event, tribal council and staff noted a need for better coordination, volunteer training, and stockpiling of supplies such as sandbags and sand

in preparation for future events. In addition, the need for shelters and high ground for livestock and horses, riparian restoration, channel meandering to prevent erosion, larger culverts, and measures to prevent repeated flooding of properties was apparent. Despite some clearly identified problem areas and needs, flood planning has faced a number of challenges including community resistance to remeandering projects, short term quick fixes instead of long-term solutions, lack of suitable areas to use for overflow or remeandering, high costs associated with moving infrastructure, conflicts between farming priorities and wetlands and riparian areas, and slow adoption of new practices.

Figure 0-6. Flood Damage on the reservation from springs floods in 2019.

Conclusion

Native American populations face unique and increased health and well-being impacts from climate change. Compared to other populations in the United States, they are more vulnerable

to these negative effects and face reduced resilience as climate change continues to escalate. Of course, Indigenous peoples, including the *Nimíipuu*, have unique and powerful ways of interacting with and relating to the more-than-human world, which can contribute to their adaptive capacity in the face of climate-related challenges. The question becomes how these adaptive potential balances with the specific vulnerabilities faced by the *Nimíipuu*. For this reason, there is a clear need for an assessment that looks specifically at community health and well-being. This assessment process should include the development of robust Indigenous health indicators in partnership with *Nimíipuu* Health, other tribal entities, and tribal members themselves.

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Appendix 5 – FEMA HMP Requirements

This section contains the FEMA regulations that pertain to the content of this plan. They were carried over as they appeared in the 2009 update.

The following is excerpted from the 2011 FEMA Local Mitigation Plan Review Guide.

This section provides detailed guidance on how FEMA interprets the various requirements of the regulation for all Local Mitigation Plan reviews through a Regulatory Checklist. The guidance is limited only to the minimum requirements of what must be in a Local Mitigation Plan and does not provide guidance on how the community should develop a plan. The Regulation Checklist includes the following Elements:

- 4.1 ELEMENT A: Planning Process
- 4.2 ELEMENT B: Hazard Identification and Risk Assessment
- 4.3 ELEMENT C: Mitigation Strategy
- 4.4 ELEMENT D: Plan Review, Evaluation, and Implementation
- 4.5 ELEMENT E: Plan Adoption
- 4.6 ELEMENT F: Additional State Requirements

DMA 2000 REQUIREMENTS: PLANNING PROCESS

Documentation of the Planning Process

Requirement §201.7(c)(1): [The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

Element

Does the new or updated plan provide a narrative description of the process followed to prepare the plan?

Does the new or updated plan indicate who was involved in the current planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated on the plan committee, provided information, reviewed drafts, etc.?)

Does the new or updated plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to the plan approval?)

Does the new or updated plan indicate that an opportunity was given for neighboring communities, agencies, businesses, academia, nonprofits, and other interested parties to be involved in the planning process?

Does the updated plan document show how the planning team reviewed and analyzed each section of the plan?

Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information?

DMA 2000 REQUIREMENTS: RISK ASSESSMENT – IDENTIFYING HAZARDS

Identifying Hazards

Requirement §201.7(c)(2)(i): [The risk assessment shall include a] description of the type…of all natural hazards that can affect the Tribal planning area.

Element

Does the new or updated plan provide a description of the types of all natural hazards that can affect the Tribal planning area? If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the Tribal planning area, this part of the plan cannot receive a Satisfactory score.

Source: FEMA 2008.

DMA 2000 REQUIREMENTS: RISK ASSESSMENT

Assessing Vulnerability: Overview

Requirement §201.6(c)(2)(ii): [The risk assessment shall include a] description of the jurisdiction'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 community.

Element

Does the new or updated plan include an overall summary description of the jurisdiction's vulnerability to each hazard?

Does the new or updated plan address the impact of each hazard on the jurisdiction?

DMA 2000 RECOMMENDATIONS: RISK ASSESSMENT

Assessing Vulnerability: Identifying Structures

Requirement §201.7(c)(2)(ii)(A): The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area.

Element

Does the new or updated plan describe vulnerability in terms of the types and numbers of existing buildings, infrastructure, and critical facilities located in the identified hazard areas?

Does the new or updated plan describe vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas?

DMA 2000 RECOMMENDATIONS: RISK ASSESSMENT

Assessing Vulnerability: Estimating Potential Losses

Requirement §201.7(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate.

Element

Does the new or updated plan estimate potential dollar losses to vulnerable structures?

Does the new or updated plan reflect changes in development in loss estimates?

Does the new or updated plan describe the methodology used to prepare the estimate?

DMA 2000 RECOMMENDATIONS: RISK ASSESSMENT

Assessing Vulnerability: Assessing Cultural and Sacred Sites

Requirement §201.7(c)(2)(ii)(D): [The plan should describe vulnerability in terms of] cultural and sacred sites that are significant, even if they cannot be valued in monetary terms.

Element

Does the new or updated plan discuss cultural and sacred sites?

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Trial Hazard Mitigation Goals

Requirement §201.7(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

Element

Does the new or updated plan include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards?

Does the updated plan demonstrate that the goals were assessed and either remain valid or have been revised?

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Identification and Analysis of Mitigation Actions

Requirement §201.7(c)(3)(ii): [The mitigation strategy shall include] a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Element

Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard?

Do the identified actions and projects address reducing the effects of hazards on new buildings and infrastructure?

Do the identified actions and projects address reducing the effects of hazards on existing buildings and infrastructure?

Does the mitigation strategy identify actions related to the participation in and continued compliance with the NFIP?

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Implementation of Mitigation Actions

Requirement: §201.7(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the Indian Tribal government

Element

Does the new or updated mitigation strategy include how the actions are prioritized? (For example, is there a discussion of the process and criteria used?)

Does the new or updated mitigation strategy address how the actions will be implemented and administered? (For example, does it identify the responsible department, existing and potential resources, and timeframe?)

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Tribal Capability Assessment

Requirement §201.7(c)(3)(iv): [The mitigation strategy shall include] a discussion of the Indian 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, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas.

Element

Does the new or updated plan include an evaluation of the Tribe's pre-disaster hazard management policies, programs, and capabilities?

Does the new or updated plan include an evaluation of the Tribe's post-disaster management policies, programs, and capabilities?

Does the new or updated plan include an evaluation of the Tribe's policies related to development in hazard prone areas?

Does the new or updated plan include a discussion of Tribal funding capabilities for hazard mitigation projects?

Does the updated plan address any hazard management capabilities of the Tribe that have changed since approval of the previous plan?

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Funding Sources

Requirement §201.7(c)(3)(v): [The mitigation strategy shall include an] identification of current and potential sources of Federal, Tribal, or private funding to implement mitigation activities.

Element

Does the new or updated plan identify current sources of Federal, Tribal, or private funding to implement mitigation activities?

Does the new or updated plan identify potential sources of Federal, Tribal, or private funding to implement mitigation activities?

Does the updated plan identify the sources of mitigation funding used to implement activities in the mitigation strategy since approval of the previous plan?

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Monitoring Project Implementation

Requirement §201.7(c)(4)(ii): [The plan maintenance process shall include a] system for monitoring implementation measures and project closeouts.

Element

Does the new or updated plan describe how mitigation measures and project closeouts will be monitored?

Does the updated plan describe any modifications, if any, to the system identified in the previously approved plan to track the initiation, status, and completion of mitigation activities?

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Incorporation into Existing Planning Mechanisms

Requirement §201.7(c)(4)(iii): [The plan maintenance process shall include a] process by which the Indian Tribal government incorporates the requirements of the mitigation plan into other planning mechanisms such as Reservation master plans or capital improvement plans, when appropriate.

Element

Does the plan identify other planning mechanisms available for incorporating the requirements of the mitigation plan?

Does the plan include a process by which the Indian Tribal government will incorporate the requirements in other plans, when appropriate?

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Continued Public Involvement

Requirement §201.7(c)(4)(iv): [The plan maintenance process shall include a] discussion on how the Indian Tribal government will continue public participation in the plan maintenance process.

Element

Does the plan explain how continued public participation will be obtained? (For example, will there be public notices, an ongoing mitigation plan committee, or annual review meetings with stakeholders?)

DMA 2000 REQUIREMENTS: PREREQUISITES

Adoption by the Tribal Governing Body

Requirement §201.7(c)(5): The plan must be formally adopted by the governing body of the Indian Tribal government prior to submittal to FEMA for final review and approval.

Element

Has the governing body of the Indian Tribal government adopted the new or updated plan?

Is supporting documentation, such as a resolution, included?

Does the plan provide assurances that the Tribe will continue to comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in Tribal or Federal laws and statutes as required in 44 CFR 13.11(d).

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Monitoring, Evaluating and Updating the Plan

Requirement §201.7(d)(4)(i): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan.

Element

Does the plan describe the method and schedule for monitoring the plan? (For example, does it identify the party responsible for monitoring and include a schedule for reports, site visits, phone calls, and meetings?)

Does the plan describe the method and schedule for evaluating the plan? (For example, does it identify the party responsible for evaluating the plan and include the criteria used to evaluate the plan?)

Does the plan describe the method and schedule for updating the plan?

FEMA Region 10 Tribal Mitigation Plan Review

The *Tribal Mitigation Plan Review Tool* records how the tribal mitigation plan meets the regulations in 44 CFR §§ 201.7 and 201.5 (if applicable) and offers FEMA plan reviewers an opportunity to provide feedback to the tribal government.

- **Section 1**: The Regulation Checklist documents FEMA's evaluation of whether the plan has addressed all requirements. If plan requirements are not met, FEMA uses each Required Revisions section to indicate necessary changes.
- **Section 2**: The Strengths and Opportunities for Improvement summary identifies plan's strengths as well as areas for improvement as part of the next plan update.

The FEMA mitigation planner must reference the *Tribal Mitigation Plan Review Guide* when completing the *Tribal Mitigation Plan Review Tool*.

Tribal Jurisdiction:	**Title of Plan:**	**Date of Plan:**
Nez Perce Tribe	Nez Perce Tribe Natural Hazard Mitigation Plan 2025 Revision	July 2025

Tribal Point of Contact: John Wheaton	**Address:**
Title: Emergency Manager	PO Box 365-109 Lolo St. Lapwai, ID 83540
Agency: Nez Perce Tribe of Idaho	
Phone Number: 208-621-3760	**Email:** jwheaton@nezperce.org

State Reviewer (if applicable):	**Title:**	**Date:**
Lorrie Pahl	Mitigation Planner	07/01/2025

FEMA Reviewer:	**Title:**	**Date:**
Date Received in FEMA Region 10		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

Section 1: REGULATION CHECKLIST

1. **Standard Regulation Checklist** **Regulation** (44 CFR § 201.7 Tribal Mitigation Plans)	**Location in Plan (section and/or**	**Met**	**Not Met**
ELEMENT A. PLANNING PROCESS			
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process? [44 CFR § 201.7(c)(1)]			
A2. Does the plan document an opportunity for public comment during the drafting stage and prior to plan approval, including a description of how the tribal government defined "public"? [44 CFR § 201.7(c)(1)(i)]			
A3. Does the plan document, as appropriate, an opportunity for neighboring communities, tribal and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? [44 CFR § 201.7(c)(1)(ii)]			
A4. Does the plan describe the review and incorporation of existing plans, studies, and reports? [44 CFR § 201.7(c)(1)(iii)]	Click or tap here to enter text.		
A5. Does the plan include a discussion on how the planning process was integrated to the extent possible with other ongoing tribal planning efforts as well as other FEMA programs and initiatives? [44 CFR § 201.7(c)(1)(iv)]			
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)]			
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)]			
ELEMENT A: REQUIRED REVISIONS			

ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT			
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect the tribal planning area? [44 CFR § 201.7(c)(2)(i)]			
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard events for the tribal planning area? [44 CFR § 201.7(c)(2)(i)]			
B3. Does the plan include a description of each identified hazard's impact as well as an overall summary of the vulnerability of the tribal planning area? [44 CFR § 201.7(c)(2)(ii)]			
ELEMENT B: REQUIRED REVISIONS			
ELEMENT C. MITIGATION STRATEGY			
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)]			
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? [44 CFR §§ 201.7(c)(3)(iv) and 201.7(c)(3)(v)]			
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)]			
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)]			
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)]			
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)]			

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)]			
ELEMENT C: REQUIRED REVISIONS			
ELEMENT D. PLAN UPDATES			
D1. Was the plan revised to reflect changes in development? [44 CFR § 201.7(d)(3)]			
D2. Was the plan revised to reflect progress in tribal mitigation efforts? [44 CFR §§ 201.7(d)(3) and 201.7(c)(4)(iii)]			
D3. Was the plan revised to reflect changes in priorities? [44 CFR § 201.7(d)(3)]			
ELEMENT D: REQUIRED REVISIONS			
ELEMENT E. ASSURANCES AND PLAN ADOPTION			
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)]			
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)]			
ELEMENT E: REQUIRED REVISIONS			

2. Enhanced Regulation Checklist **Regulation** (44 CFR § 201.5 Enhanced Tribal Mitigation Plans)	Location in Plan (section and/or	Met	Not Met
ENHANCED ELEMENT F. STANDARD PLAN REQUIREMENTS			
F1. Does the enhanced plan include all elements of the standard tribal mitigation plan? [44 CFR §§ 201.3(e)(3), 201.5(b), and 201.7]			
ENHANCED ELEMENT F: REQUIRED REVISIONS			
ENHANCED ELEMENT G. INTEGRATED PLANNING			
G1. Does the enhanced plan demonstrate integration to the extent practicable with other tribal and/or regional planning initiatives and FEMA mitigation programs and initiatives? [44 CFR §§ 201.3(e)(3) and 201.5(b)(1)]			
ENHANCED ELEMENT G: REQUIRED REVISIONS			
ENHANCED ELEMENT H. TRIBAL MITIGATION CAPABILITIES			
H1. Does the tribal government demonstrate commitment to a comprehensive mitigation program? [44 CFR §§ 201.3(e)(3) and 201.5(b)(4)]			
H2. Does the enhanced plan document capability to implement mitigation actions? [44 CFR §§ 201.3(e)(3), 201.5(b)(2)(i), 201.5(b)(2)(ii), and 201.5(b)(2)(iv)]			
H3. Is the tribal government using existing mitigation programs to achieve mitigation goals? [44 CFR §§ 201.3(e)(3), 201.5(a) and 201.5(b)(3)]			
ENHANCED ELEMENT H: REQUIRED REVISIONS			
ENHANCED ELEMENT I. HMA GRANTS MANAGEMENT PERFORMANCE			
I1. With regard to HMA, is the tribal government maintaining the capability to meet application timeframes and submitting complete project applications? [44 CFR §§ 201.3(e)(3), 201.5(b)(2)(iii)(A)]			

2. Enhanced Regulation Checklist **Regulation** (44 CFR § 201.5 Enhanced Tribal Mitigation Plans)	**Location in Plan** **(section and/or**	**Met**	**Not Met**
I2. With regard to HMA, is the tribal government maintaining the capability to prepare and submit accurate environmental reviews and benefit-cost analyses? [44 CFR §§ 201.3(e)(3) and 201.5(b)(2)(iii)(B)]			
I3. With regard to HMA, is the tribal government maintaining the capability to submit complete and accurate quarterly progress and financial reports on time? [44 CFR §§ 201.3(e)(3) and 201.5(b)(2)(iii)(C)]			
I4. With regard to HMA, is the tribal government maintaining the capability to complete HMA projects within established performance periods, including financial reconciliation? [44 CFR §§ 201.3(e)(3) and 201.5(b)(2)(iii)(D)]			
ENHANCED ELEMENT I: REQUIRED REVISIONS			

Section 2: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT

INSTRUCTIONS: The purpose of the ***Strengths and Opportunities for Improvement*** section is for FEMA to provide more comprehensive feedback on the tribal mitigation plan to help the tribal government advance mitigation planning. The intended audience is the tribal staff responsible for the mitigation plan update. FEMA will address the following topics:

1. Plan strengths, including specific sections in the plan that are above and beyond the minimum requirements; and
2. Suggestions for future improvements.

FEMA will provide feedback and include examples of best practices, when possible, as part of the *Tribal Mitigation Plan Review Tool,* or, if necessary, as a separate document. The tribal mitigation plan elements are included below in italics for reference. FEMA is not required to provide feedback for each element.

Required revisions from the **Regulation Checklist** are not documented in the **Strengths and Opportunities for Improvement** section. Results from the **Strengths and Opportunities for Improvement** section are not required for Plan Approval.

Describe the mitigation plan strengths areas for future improvements, including areas that may exceed minimum requirements.

- Planning process
- *Hazard identification and risk assessment*
- *Mitigation strategy (including Mitigation Capabilities)*
- *Plan updates*
- *Adoption and assurances*
- *Enhanced Plan - Integrated planning*
- *Enhanced Plan - Tribal government mitigation capabilities (commitment to a comprehensive mitigation program)*
- *Enhanced Plan - HMA grants management performance*

Copies of this Plan can be obtained by contacting:

Nez Perce Emergency Management Coordinator Emergency Management Planner

Citation of this work:

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