

November 2025 Draft La Jolla Band of Luiseño Indians



First Draft Integrated Resource Management Plan



INTEGRATED RESOURCE MANAGEMENT PLAN**on the****LA JOLLA INDIAN RESERVATION**

Recommended_____, 2026.

Superintendent, Southern California Agency

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Chairperson, La Jolla
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PREFACE

A Starting Point for Discussion

This document is the initial working draft of the La Jolla Band of Luiseño Indians (Tribe) Integrated Resource Management Plan (IRMP). Its purpose is to serve as a foundation for community-wide discussion about the future of the Reservation. Many sections are intentionally left as placeholders; this preliminary version is designed to identify initial planning issues and gather community feedback during the first phase of the IRMP process.

A Community-Led Process

It is recommended that a core IRMP committee, composed of community members and tribal employees, be established. This committee's ongoing responsibility will be to continuously update this volume by incorporating new information and planning issues that emerge from community outreach and management workshops. This work will directly support the development of overall management goals and specific objectives for the final IRMP, ensuring the plan remains accessible and relevant to the community.

A Living Document

Once finalized and adopted, this IRMP is intended to function as a **living document**. It must be updated as needed to reflect new data, adapt to changing environmental conditions, and ensure consistent and accountable management practices.

A Tool for Accountability

This plan is a tool for accountability. If government employees or elected leaders find themselves in conflict with the plan, they must explain to the community why the conflict or deviation is necessary. It is then the right of the people whom the plan is built to protect—the Tribal community—to make a **conscious decision** to either deviate from the plan for the stated reason or to **hold the employee or elected official accountable** to the plan as approved.

INTRODUCTION

The La Jolla Indian Reservation Integrated Resource Management Plan (IRMP) establishes management goals and objectives for the period spanning 2026 to 2034.

The Tribe initiated the drafting of this IRMP in 2026, beginning with a Resource Assessment. This assessment detailed the Reservation's natural resources and identified key management issues requiring attention in the updated plan. Through a series of workshops, the IRMP team evaluated the effectiveness of the previous IRMP and explored opportunities to enhance its flexibility and establish more realistic goals. Furthermore, the team emphasized the importance of a user-friendly design to improve the accessibility and informational value of the IRMP document for both the tribal community and the La Jolla Tribal Administration.

The IRMP team actively sought input from tribal members and residents of the La Jolla Indian Reservation. This engagement aimed to document the community's priorities, preferences, and concerns regarding the management of the Tribe's natural and cultural resources.

The IRMP Core Team comprises representatives from the Tribe's natural resource departments, with additional contributions from the Environmental, Water, Fire, Public Works, Enterprises, Education, Community Health, and Historic Preservation departments.

INTEGRATED RESOURCE MANAGEMENT PLANNING SECTION

An Integrated Resource Management Plan (IRMP) is the Tribe's strategic framework for the **comprehensive management of the Reservation's resources**. The IRMP development process facilitates an examination of the interconnectedness of natural resources and their various uses, alongside economic trends, cultural needs, and social forces. The ultimate objective of an IRMP is to achieve a balanced approach to natural resource management that reflects the social, cultural, economic, and natural resource values held by Reservation residents.

Integrated resource management is a **holistic approach** to Reservation resource management. It views all resources – natural, social, cultural, and economic – as interdependent, recognizing that management actions targeting one resource can have ripple effects on others. Consequently, this integrated approach accommodates the management of natural resources with multiple, and sometimes conflicting, uses. The central goal in developing this IRMP is to create a plan that effectively balances these diverse uses while ensuring the long-term sustainability of all natural resources vital to the people of the La Jolla Indian Reservation.

The Integrated Resource Management Plan (IRMP) stands as a **cornerstone** within the La Jolla Band of Luiseño Indians' broader Comprehensive Plan, a strategic and unified framework guiding the long-term development and sustainable management of the entire Reservation. This overarching strategy ensures a coordinated and holistic approach that recognizes the interconnectedness of all aspects of the Reservation's future. Alongside the IRMP, the Tribe actively develops and periodically updates other crucial planning documents, most notably the Land Use Management Plan.

The IRMP serves as the **central guiding document for the integrated management** of the Reservation's natural, cultural, and economic resources. It establishes overarching goals, objectives, and strategies for their sustainable use and preservation. In contrast, the Land Use Management Plan provides specific and detailed guidance on the physical organization of the Reservation, addressing land allocation for various purposes (e.g., residential, commercial, conservation), zoning regulations, infrastructure development (e.g., roads, utilities), and related aspects of physical development. These two key plans are intentionally designed to be complementary and mutually reinforcing. The IRMP's resource management decisions inform and are informed by the Land Use Management Plan's spatial considerations, ensuring that conservation efforts align with development plans and vice versa, fostering a harmonious and sustainable future for the Reservation.

The IRMP's broad framework is further supported and elaborated upon by several more detailed, resource-specific management plans. These vital supplementary documents

provide in-depth technical information, detailed data, and specific best management practices tailored to the unique characteristics and needs of individual resource areas. **While the chapters within this IRMP outline the general objectives and goals for each subject, the detailed, tribally-approved plans listed below are the primary operational documents that supersede the general chapter guidance.** They serve as the practical blueprints for implementing the broader goals, translating high-level strategies into actionable, on-the-ground management practices. **Crucially, all specific plans must work in concert with this IRMP and remain aligned with the Tribe's overall, integrated goals and objectives. In the event a conflict is identified between the IRMP and a specific supplementary plan, the matter must be brought before the relevant governing body of the Tribe for resolution.** These crucial supporting plans include, but are not limited to the latest tribally approved:

Forest Management Plan: This plan provides a comprehensive framework for the sustainable stewardship of the Reservation's forested lands. It details strategies for managing timber resources responsibly, promoting long-term forest health and resilience, conserving biodiversity within forest ecosystems, and addressing potential threats such as disease and invasive species.

Tribal Historic Preservation Plan (THPP): The THPP outlines systematic procedures for the thorough identification, comprehensive evaluation, and proactive protection of significant cultural, historical, archaeological, and sacred sites and resources within the Reservation. It establishes protocols for consultation, mitigation, and the preservation of the Tribe's rich cultural heritage.

Economic Development Plan: This strategic plan provides a roadmap for fostering sustainable economic growth, creating meaningful and secure employment opportunities for tribal members, diversifying the tribal economy, and enhancing the long-term economic self-sufficiency and prosperity of the Tribe and its members, while respecting cultural values and environmental sustainability.

Water Quality Monitoring Strategy and Quality Assurance Project Plan (QAPP): This detailed document establishes rigorous protocols and quality control measures for the systematic monitoring of the Reservation's surface and groundwater resources. It ensures the collection of reliable data to assess water quality, track trends, and guarantee adherence to established Tribal and federal water quality standards, safeguarding this vital resource for present and future generations.

Wildland Fire Management Plan: This critical plan details a comprehensive strategy for the prevention, safe and effective suppression, and proactive management of wildland fires on the Reservation. Its primary goals are to protect human life, property,

critical infrastructure, and valuable natural and cultural resources from the damaging effects of wildfire, while also incorporating the beneficial uses of fire where appropriate.

Prescribed Understory Burn Plan: This plan specifically outlines the precise objectives, carefully controlled methods, and stringent safety procedures for the application of prescribed fire to manage understory vegetation. Its aims include reducing hazardous fuel loads, mitigating the risk of catastrophic wildfires, promoting the health and regeneration of native plant communities, and enhancing overall ecosystem health in appropriate areas.

Prescribed Pile Burn Plan: This focused plan details the standardized procedures for the safe, efficient, and effective burning of accumulated vegetative debris (piles) resulting from various land management activities. Its primary purpose is to reduce fire hazards, minimize smoke impacts, and contribute to overall forest health and fuel management objectives in a controlled manner.

Climate Change Adaptation Plan: This forward-looking plan identifies the potential impacts of climate change on the Reservation's diverse natural, cultural, and economic resources. It outlines proactive strategies and adaptive measures to enhance the resilience of these resources and the tribal community to the anticipated and ongoing effects of a changing climate.

These interconnected planning documents, with the IRMP at their core, demonstrate the La Jolla Band of Luiseño Indians' commitment to a well-informed, integrated, and sustainable approach to managing their precious Reservation lands and resources for the benefit of current and future generations.

HISTORY OF RESOURCE MANAGEMENT PLANNING

Formal integrated resource management planning on the La Jolla Indian Reservation is a relatively recent but significant development in the Tribe's history of land stewardship. While federal legislation established broad forestry programs for Indian lands early in the 20th century, these national objectives often had limited direct and culturally specific impact on the ground-level management of the La Jolla Band's Forest resources, particularly in areas not designated for commercial timber production. This often resulted in a disconnect between federal mandates and the Tribe's unique needs and ecological understanding.

The **Multiple Use Sustained Yield Act of 1960** (clarifying the original intent and year) marked a significant conceptual shift by acknowledging the diverse and interconnected uses of natural resources like forests and rangelands on *national forests*. This act directed the Secretary of Agriculture to manage these renewable resources—timber, range, water, recreation, and wildlife—for multiple use and sustained yield, establishing these five major uses on an equal footing without preference. While this act didn't directly mandate practices on tribal lands, its philosophy of integrated resource consideration would later influence approaches to tribal land management.

The first formal forest management plan specifically tailored for the La Jolla Indian Reservation was developed in 2019 but not approved until **2026**. This plan marked the formal initiation of more intensive and documented forest management practices on the Reservation. The initial plan established a modest annual allowable cut, primarily focusing on the sustainable salvage of dead or damaged timber for firewood, a crucial resource for the community. It also recognized other potential forest uses, including recreation, wildlife habitat, water resource protection, grazing, and potential limited mineral extraction, with the overarching goal of managing and preserving the health and resilience of the Reservation's significant oak woodlands, particularly in the face of emerging threats like invasive insect infestations, while also generating revenue to support the Tribe and the establishment of a dedicated natural resources management capacity for rapid response to such ecological challenges.

Several key federal environmental laws enacted in the latter half of the 20th century have significantly shaped the framework for resource management on the Reservation, requiring consideration in all tribal land management activities:

- The **National Environmental Policy Act of 1969 (NEPA)** established a fundamental policy requiring all federal agencies to consider the environmental consequences of their actions before undertaking any major federal project

significantly affecting the environment. This mandate includes a formal planning process, public participation, and the analysis of alternative actions, directly impacting any federally funded or approved projects on tribal lands.

- The **Clean Water Act of 1972** created a regulatory structure to control the discharge of pollutants into U.S. waters and established water quality standards for surface waters. This act necessitates permits for point source pollution and influences the Tribe's water management practices and the protection of its aquatic resources.
- The **Indian Self-Determination and Education Assistance Act of 1975** represented a pivotal shift in federal-tribal relations, empowering Tribes by granting them greater autonomy and responsibility for administering programs and services previously managed by the federal government. This act fostered the development of comprehensive tribal resource assessments and the capacity for Tribes to develop their own management plans.

In the 1980s, exercising its growing self-determination, the Tribe began to actively address its inherent tribal water rights. This led to the implementation of a tribal water use-permitting program, the establishment of tribally specific water quality standards reflecting the unique needs of the Reservation, and the development of programs for pollution abatement and the management of on-site wastewater treatment, demonstrating a proactive approach to protecting this vital resource. The formalization of the Environmental Protection Office during this period further solidified the Tribe's commitment to environmental stewardship, building in-house expertise in critical areas like soils and comprehensive watershed management.

A significant ecological event, the increased tree mortality in oak woodlands caused by invasive insect infestations, prompted a notable shift in forest management practices on the La Jolla Indian Reservation approximately five years prior to the drafting of this document (around [Current Year - 5, so likely 2020]). This ecological crisis necessitated the adoption of new management directives grounded in sound forestry prescriptions. Salvage logging to remove dead and dying trees and sanitation regeneration cuts to promote the establishment of healthy new growth became key strategies in the affected areas.

The passage of landmark federal Indian forestry and agriculture acts in the early 1990s, specifically the **National Indian Forest Resources Management Act of 1990 (NIFRMA)** (correcting the year) and the **American Indian Agricultural Resource Management Act of 1993 (AIARMA)**, formally established a crucial link: the requirement for tribal forest and agricultural management plans to be consistent with a comprehensive tribal Integrated Resource Management Plan (IRMP). NIFRMA also

mandated an interdisciplinary review process for projects proposed on Reservation land, a precursor to and the foundation for the current Project Proposal Process (3P).

During the development of NIFRMA in 1990, Congress explicitly acknowledged the historical and ongoing significant underfunding of Indian forest management compared to the investment in management on Forest Service, Bureau of Land Management, and private forestlands. The Indian Forestry Management Assessment Team (IFMAT), operating under the guidance of the Intertribal Timber Council (ITC), underscored the critical importance of developing and implementing integrated resource management plans as a high priority for the effective and sustainable management of all Indian resources.

AIARMA, enacted in 1993, further advanced tribal self-determination in resource management by providing a framework for Tribes to manage their agricultural lands and related renewable resources in a manner consistent with their own identified tribal goals and priorities, emphasizing conservation, multiple use, and sustained yield principles aligned with tribal values.

These significant legislative advancements, empowering Tribes to exercise greater control over the management of their natural resources, have generally fostered increased satisfaction and a greater sense of ownership in the quality of resource management within tribal communities nationwide. Tribal programs are increasingly leading the management of their resources in accordance with their own unique tribal visions, with a noticeable shift in management priorities towards sustainable multiple use strategies that give increasing emphasis to resource preservation and cultural values.

This Integrated Resource Management Plan (IRMP) represents the first comprehensive, holistic, and multiple-use natural resource management plan specifically developed by and for the La Jolla Indian Reservation. It adopts a truly integrated perspective on the Reservation's interconnected natural resources, explicitly encompassing watersheds, forests, rangelands, and the vital interrelationships between fish, wildlife, and the human community. A dedicated multidisciplinary team, drawing expertise from various tribal departments, conducted a thorough and culturally informed resource assessment. This assessment served as the foundation for developing a comprehensive management structure and a detailed management plan outlining specific goals, objectives, and strategies for the sustainable stewardship of the Reservation's resources.

Recognizing the significant role of the Tribe's forest and range resources, which constitute a quarter of the trust lands and provide essential revenue and employment opportunities, this IRMP acknowledges that timber harvesting and other significant land

management activities constitute federal actions subject to the National Environmental Policy Act (NEPA). Therefore, the IRMP explicitly recognizes the necessity for thorough environmental impact assessments for any future multi-year Forest Management Plan or other projects with the potential for significant environmental consequences.

The Bureau of Indian Affairs (BIA) continues to uphold its regulatory and fiduciary responsibilities in the management of agricultural and forest resources held in trust for the Tribe. This includes ensuring that current, tribally approved management plans are in place for these resources and that the potential environmental impacts of proposed actions are thoroughly identified, analyzed, and mitigated through appropriate measures developed in collaboration with the Tribe.

NATIONAL ENVIRONMENTAL POLICY ACT REQUIREMENTS

As approximately one-quarter of the La Jolla Indian Reservation's trust lands are forested, contributing to tribal revenue and employment, any future multi-year Forest Management Plan (under the IRMP) that includes timber harvesting, fire management, or rangeland management activities would constitute a potential federal action subject to the National Environmental Policy Act (NEPA). Consequently, to ensure the protection of water, soil, cultural, air, socioeconomic, and land use resources from potential adverse impacts of these management actions, the preparation of a Biological Assessment (BA), Programmatic Environmental Assessment (EA), or a Programmatic Environmental Impact Statement (EIS) would be required. This NEPA process, overseen by the Bureau of Indian Affairs (BIA) in its regulatory and fiduciary capacity for managing agricultural and forest resources on tribal trust lands, mandates the identification of potential environmental impacts and the development of feasible mitigation measures to safeguard these resources. In accordance with NEPA, a Notice of Intent was published in the tribal hall on [Insert Date] to inform the public of the BIA's and the La Jolla Band's intention to prepare an Environmental Assessment for the IRMP, specifically addressing fire, forest, and rangeland management and their potential effects on the aforementioned resources. Public scoping meetings were conducted in Reservation communities in September 2022, September 2023, and February 2024, with additional community meetings held on the Reservation to gather public input on these critical environmental considerations.

THE PROJECT PROPOSAL PROCESS (3P)

The Project Proposal Process (3P)

The Project Proposal Process (3P) serves as a vital, structured mechanism for the comprehensive review of all proposed projects impacting the lands and resources of the La Jolla Indian Reservation. This process is designed to ensure rigorous evaluation for **alignment with the Integrated Resource Management Plan (IRMP) goals and objectives, compliance with all applicable Tribal goals, codes, and federal laws and regulations**, including the National Environmental Policy Act (NEPA) requirements for thorough environmental impact analysis and the diligent consideration of alternative actions.

The 3P review is conducted by a **multi-disciplinary team** comprised of representatives from key tribal departments, including Natural Resources (e.g., Forestry, Wildlife, Water), Environmental Protection, Fire Management, Tribal Enterprises, and Public Works. The Bureau of Indian Affairs (BIA) Superintendent or their designated representative is also an integral member of this review team, reflecting the federal trust responsibility.

The scope of projects subject to the 3P review is broad and encompasses, but is not limited to:

- **Natural Resource Management Projects:** Forest maintenance, reforestation initiatives, timber salvage operations, grazing permits, water resource development, and fish and wildlife management activities.
- **Wildland Fire Management Activities:** Wildland-Urban Interface (WUI) hazard reduction projects, prescribed fire implementation, and fuels management initiatives.
- **Infrastructure and Development Projects:** Residential, commercial, and infrastructure development projects, road construction and maintenance, utility installations, and telecommunication infrastructure.
- **Land Status Actions:** Fee-to-trust ownership status changes, land leases, rights-of-way, and boundary adjustments.
- **Cultural Resource Impacts:** Projects with the potential to affect archaeological sites, traditional cultural properties, and sacred areas.

During the 3P review, the team collaboratively evaluates project proposals based on a standardized set of criteria. This evaluation focuses on identifying potential environmental, cultural, social, and economic impacts, and **formulating specific,**

actionable recommendations to minimize and mitigate any adverse effects. The process ensures that all projects are consistent with the guiding principles of the IRMP and adhere to relevant Tribal and federal legal frameworks.

Projects identified as having the potential for significant adverse environmental impacts are required to undergo a more in-depth environmental review, often culminating in the preparation of an Environmental Assessment (EA) or, in more complex cases, an Environmental Impact Statement (EIS), in accordance with NEPA regulations.

Final project approval is a collective responsibility, requiring concurrence from the 3P Team, the BIA Superintendent (where federal approval is required), relevant program managers overseeing the project area, and the La Jolla Tribal Administration. This multi-layered approval process underscores the commitment to responsible and well-considered project implementation.

Project proponents can include a diverse range of entities, such as individual tribal members, private businesses operating within the Reservation, the Tribe's own corporate entities, and various tribal government programs and departments. It is important to emphasize that **all proposed projects**, regardless of their origin, including those initiated by tribal programs and departments, are subject to the same rigorous 3P review process.

For example, when the Forestry Department proposes a restoration program or other forest management activities, they submit comprehensive documentation to the 3P team. This documentation typically includes detailed project narratives, precise maps, specific silvicultural prescriptions, proposed harvest plans (if applicable), and any other pertinent information necessary for a thorough evaluation. The 3P review often involves **site visits and organized public meetings** to gather valuable input from tribal members and stakeholders, ensuring community engagement in project development.

Similarly, the Fire Department's fuels planners present detailed proposals for prescribed fire and fuels management projects, clearly outlining the objectives, methods, and safety protocols for utilizing fire as a critical tool in managing the Band's natural resources. These planners actively participate in the development of mitigation measures aimed at minimizing any potential environmental or cultural impacts associated with fire management activities.

The Environmental Protection Office (EPO) plays a pivotal role in the 3P process by conducting thorough reviews of project plans to proactively identify potential impacts on soil, water, and air resources. The EPO provides expert recommendations for avoidance, minimization, and mitigation measures to protect these critical environmental

components. Furthermore, the EPO also submits its own project proposals, such as watershed restoration initiatives, for 3P review, ensuring internal accountability and adherence to the same standards.

The Tribal Historic Preservation Program (THPO) is instrumental in safeguarding the Reservation's rich cultural heritage. The THPO identifies and assesses cultural sites that may be affected by proposed projects, working collaboratively with project proponents to develop strategies for avoidance or implement appropriate mitigation measures to protect these invaluable resources. The THPO team actively participates in the review of all project applications and engages in project planning for major natural resources and other development initiatives on the Reservation. Their contributions include conducting cultural resource surveys and providing crucial input for the preparation of environmental assessments.

By maintaining a transparent, collaborative, and comprehensive Project Proposal Process, the La Jolla Band of Luiseño Indians ensures that all development and management activities on the Reservation are carefully considered, environmentally sound, culturally sensitive, and aligned with the long-term vision articulated in the Integrated Resource Management Plan.

TRIBAL CODES AND FEDERAL LAWS

The stewardship of the La Jolla Indian Reservation's natural resources is a multifaceted responsibility, requiring diligent adherence to a comprehensive framework of both Tribal policies and federal laws, along with their accompanying regulations. Recognizing the importance of a clear and effective legal foundation for resource management, the La Jolla Band of Luiseño Indians is actively engaged in a process of drafting, reviewing, and updating its own tribal codes. This ongoing effort aims to strengthen the Tribe's self-governance in resource management, reflect its unique cultural values and priorities, and ensure seamless compliance with applicable federal mandates.

The development of robust tribal codes is a cornerstone of the Tribe's sovereignty and its commitment to responsible resource management. These codes provide specific guidance and regulations tailored to the unique ecological, cultural, and economic context of the Reservation. They address a wide range of resource management issues, potentially including water rights and allocation, land use practices, forestry regulations, protection of cultural and historical sites, wildlife management, environmental protection standards, and permitting processes. By establishing clear and enforceable tribal codes, the Band asserts its inherent authority over its resources and creates a framework that is both responsive to the needs of its members and protective of the Reservation's long-term sustainability.

Simultaneously, the Tribe recognizes and respects the significant role of federal laws and regulations in the management of natural resources on tribal trust lands. These federal mandates, enacted by the U.S. Congress and administered by various federal agencies such as the Bureau of Indian Affairs (BIA), the Environmental Protection Agency (EPA), and the U.S. Fish and Wildlife Service, establish minimum standards and requirements for environmental protection, conservation, and the management of specific resource categories. Compliance with these federal laws is not only a legal obligation but also a means of ensuring the health and well-being of the Reservation's ecosystems and the safety of its inhabitants.

The interplay between tribal policies and federal laws necessitates a coordinated and informed approach to resource management. The Tribe's ongoing efforts to draft and refine its codes are undertaken with careful consideration of existing federal requirements, aiming to create a harmonious and effective regulatory landscape. In some instances, tribal codes may build upon or enhance federal standards, reflecting the Tribe's specific environmental or cultural priorities. In other cases, they may provide the specific mechanisms for implementing federal regulations at the local level.

Furthermore, the process of developing tribal codes often involves extensive consultation with tribal members, elders, and relevant experts. This inclusive approach ensures that the resulting policies are culturally appropriate, reflect the community's values, and benefit from traditional ecological knowledge. By actively shaping its own legal framework for resource management, the La Jolla Band is demonstrating its commitment to self-determination and its proactive role in safeguarding the Reservation's precious natural and cultural heritage for future generations. This dedicated effort to align tribal policies with federal laws creates a stronger, more coherent, and ultimately more effective system for the sustainable management of the La Jolla Indian Reservation's invaluable resources.

FEDERAL LAWS

The following federal laws have a significant impact on the management of the Reservation's natural resources. Tribal departments and programs are required to comply with these laws to protect air and water quality, fish and wildlife habitat, and traditional cultural resources:

- National Environmental Policy Act (NEPA)
- Clean Air Act (CAA)
- Clean Water Act (CWA)
- The National Indian Forest Resources Management Act (NIFRMA)
- American Indian Agricultural Resource Management Act (AIARMA)
- Endangered Species Act (ESA)
- National Historic Preservation Act (NHPA)
- Archaeological Resources Protection Act (ARPA)
- American Indian Religious Freedom Act (AIRFA)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- The Migratory Bird Treaty Act
- Wetland Protection Act (various statutes and regulations)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Federal Hazardous and Solid Waste Amendments (HSWA)
- The Federal Wildland Fire Management Policy

LA JOLLA INDIAN RESERVATION GOALS

These objectives are designed to be specific, measurable, achievable, relevant, and time-bound (SMART) where possible, although some are more long-term and may require further refinement with specific timelines and metrics.

Goal 1: To maintain and build upon our unique culture, traditions, language, sovereignty, and history; we envision a healthy society, environment, and economy; we will treat everyone with honor and respect, upholding the freedom to worship, live, work, and play as we choose, embracing each other's diversity and uniqueness.

Objectives:

- **Culture & Traditions:**

- Increase participation in cultural events and traditional practices by tribal members by 25% over the next five years, as measured by attendance records and sign-up sheets.
- Document and preserve at least five additional traditional skills or practices (e.g., weaving, pottery, storytelling) through workshops, recordings, and written materials within the next three years.
- Establish a mentorship program pairing elders with youth to transmit cultural knowledge and traditions, with at least 10 active pairings annually.

- **Language:**

- Increase the number of fluent Luiseño speakers by 10% over the next ten years through language immersion programs and community classes.
- Develop and implement a Luiseño language curriculum for all grade levels within the tribal school system within the next five years.
- Create publicly accessible language resources (e.g., online dictionaries, audio recordings) within the next three years.

- **Sovereignty & History:**

- Develop and deliver at least two educational workshops annually for tribal members on the history of the La Jolla Band and tribal sovereignty.
- Strengthen intergovernmental relationships with federal, state, and local entities to protect and enhance tribal sovereignty through active participation in consultations and policy discussions.
- Establish an archive or museum to preserve and showcase the Tribe's historical documents, artifacts, and oral histories within the next seven years.

- **Healthy Society:**

- o Improve access to culturally relevant healthcare services and mental health support for tribal members, as measured by increased utilization rates and positive feedback surveys.
- o Reduce rates of chronic diseases (e.g., diabetes, heart disease) within the tribal community by 5% over the next five years through health education programs and access to healthy food options.
- o Promote healthy lifestyles through community-based wellness initiatives and increased access to recreational facilities.
- **Healthy Environment:** (Objectives related to the environment are further detailed in Goal 5, but a connection here is important)
 - o Integrate traditional ecological knowledge into natural resource management practices, documented through collaborative projects with elders and knowledge holders.
 - o Implement sustainable practices in tribal operations and promote environmental stewardship among tribal members through educational outreach.
- **Healthy Economy:** (Objectives related to the economy are further detailed in Goal 3, but a connection here is important)
 - o Support the development of tribally owned businesses that align with cultural values and provide employment opportunities for tribal members.
 - o Promote financial literacy and economic self-sufficiency within the tribal community through workshops and resources.
- **Honor, Respect, Diversity, and Uniqueness:**
 - o Develop and implement a tribal code of conduct that emphasizes honor, respect, and inclusivity within the next two years.
 - o Conduct regular community dialogues and forums to foster understanding and appreciation of the diversity and uniqueness within the tribal community.
 - o Integrate principles of respect and cultural sensitivity into all tribal programs and services.

Goal 2: To provide plentiful and affordable housing, meaningful and secure employment, and accessible educational opportunities, fostering clean, self-sufficient, safe, and wholesome environments, and providing opportunities for family-based recreation.

Objectives:

- **Plentiful and Affordable Housing:**

- o Develop and implement a comprehensive housing plan to address the housing needs of tribal members, aiming to increase the availability of affordable housing units by 15% over the next ten years.
- o Explore and secure funding opportunities for housing development and rehabilitation projects.
- o Establish and maintain programs to support tribal members in achieving and sustaining homeownership or affordable rental options.
- **Meaningful and Secure Employment:**
 - o Increase the tribal member employment rate by 10% over the next five years through job training programs, career counseling, and support for tribal entrepreneurship.
 - o Develop partnerships with local businesses and organizations to create employment opportunities for tribal members.
 - o Provide resources and support for tribal members seeking higher education and vocational training to enhance their employment prospects.
- **Accessible Educational Opportunities:**
 - o Enhance the quality and accessibility of educational programs for all tribal members, from early childhood education through higher education and vocational training.
 - o Increase the high school graduation rate and the number of tribal members pursuing post-secondary education or vocational training by 5% over the next five years.
 - o Provide scholarships, grants, and support services to tribal members pursuing educational goals.
- **Clean, Self-Sufficient, Safe, and Wholesome Environments:**
 - o Develop and implement sustainable infrastructure projects to ensure access to clean water, reliable energy, and efficient waste management systems.
 - o Enhance community safety through proactive law enforcement, crime prevention programs, and community engagement initiatives.
 - o Promote healthy lifestyles and well-being through access to nutritious food, healthcare services, and safe recreational spaces.
- **Opportunities for Family-Based Recreation:**
 - o Develop and maintain safe and accessible recreational facilities and programs for all age groups, including parks, playgrounds, and community centers.
 - o Organize regular family-oriented recreational events and activities that promote community engagement and healthy lifestyles.
 - o Explore and develop opportunities for outdoor recreation that are consistent with cultural values and environmental sustainability.

Goal 3: To support a high quality of life through sustainable wealth generated from diverse income opportunities, without compromising our traditions, culture, and values; we will emphasize the importance of membership involvement in developing their communities; we will provide opportunities and infrastructure to increase understanding and awareness of our culture, traditions, language, sovereignty, and history throughout our communities, schools, and workplaces, continuously promoting honor, respect, and diversity.

Objectives:

- **Sustainable Wealth & Diverse Income Opportunities:**
 - Develop a strategic economic development plan that identifies and supports diverse and sustainable income-generating opportunities for the Tribe and its members.
 - Support the growth of tribally owned enterprises in sectors that align with tribal values and have long-term economic viability.
 - Attract responsible and culturally sensitive businesses to the Reservation that provide employment and economic benefits to tribal members.
 - Explore opportunities for revenue generation from natural resources in a sustainable and culturally appropriate manner.
- **Membership Involvement in Community Development:**
 - Establish mechanisms for regular and meaningful consultation with tribal members on all major community development initiatives.
 - Create opportunities for tribal members to participate in planning processes and decision-making that affect their communities.
 - Support the development of community-based organizations and initiatives that empower tribal members to shape their future.
- **Increased Understanding & Awareness of Culture, Traditions, Language, Sovereignty, and History:** (This objective overlaps with Goal 1, reinforcing its importance)
 - Integrate cultural education into all tribal programs and services, including economic development and employment training.
 - Utilize tribal media and communication channels to regularly share information about the Tribe's culture, traditions, language, sovereignty, and history.
 - Support community events and initiatives that celebrate and promote tribal heritage.
 - Develop partnerships with educational institutions and cultural organizations to broaden awareness of the La Jolla Band's unique identity.

- **Continuous Promotion of Honor, Respect, and Diversity:** (This objective also overlaps with Goal 1)
 - o Incorporate principles of honor, respect, and diversity into all tribal policies and procedures.
 - o Provide training and workshops for tribal staff and community members on cultural sensitivity and respectful communication.
 - o Celebrate and acknowledge the diverse backgrounds and contributions of all tribal members.

Goal 4: To continue to be a self-sustaining sovereign entity with flourishing enterprises and healthy, productive landscapes, including rangelands, croplands, forests, riparian areas, streams, and lakes; tribal decisions will prioritize the protection of tradition, culture, and aesthetic values; we will continue to provide improved and enhanced opportunities to communities, schools, and workplaces to increase understanding and awareness of our culture, values, tradition, languages, sovereignty, and history.

Objectives:

- **Self-Sustaining Sovereign Entity:**
 - o Strengthen tribal governance structures and administrative capacity to effectively exercise tribal sovereignty.
 - o Develop and implement policies and codes that reflect tribal values and protect tribal jurisdiction.
 - o Actively engage in intergovernmental affairs to protect and advance tribal sovereignty and self-determination.
 - o Build the Tribe's financial self-sufficiency through sound fiscal management and diverse revenue streams.
- **Flourishing Enterprises:**
 - o Support the development and growth of tribally owned businesses that contribute to the economic well-being of the Tribe and its members.
 - o Create a supportive environment for tribal entrepreneurship through access to capital, technical assistance, and mentorship.
 - o Ensure that tribal enterprises operate in a manner that is consistent with tribal values and environmental sustainability.
- **Healthy, Productive Landscapes:** (Objectives related to specific resource management will be detailed in relevant sections of the IRMP)
 - o Implement sustainable land management practices to maintain and enhance the health and productivity of rangelands, croplands, forests, riparian areas, streams, and lakes.

- o Restore degraded ecosystems and protect biodiversity through targeted conservation efforts.
- o Integrate traditional ecological knowledge into natural resource management practices.
- **Prioritization of Tradition, Culture, and Aesthetic Values in Tribal Decisions:**
 - o Develop and implement a process for incorporating cultural and aesthetic considerations into all tribal planning and decision-making processes.
 - o Consult with elders and cultural experts to ensure that tribal decisions are consistent with traditional values.
 - o Protect culturally significant sites and landscapes.
- **Improved and Enhanced Opportunities for Cultural Understanding:**
(Reinforces objectives in Goals 1 and 3)
 - o Expand cultural programming and resources within communities, schools, and workplaces.
 - o Develop and support tribal member participation in cultural events and activities.
 - o Utilize technology and media to enhance access to cultural information and learning opportunities.

Goal 5: To maintain the Reservation as a rural environment where the population exists in balance with an effective water, mineral, and energy cycle, supporting biodiversity that results in an abundance of cultural, medicinal, and edible plants, clean air and water, year-round flowing springs and streams, large trees, diverse wildlife, fish, and insects.

Objectives:

- **Effective Water Cycle:**
 - o Protect and enhance the quality and quantity of surface and groundwater resources through sustainable water management practices.
 - o Implement measures to conserve water use across all sectors on the Reservation.
 - o Restore and protect riparian areas and wetlands to support healthy hydrological functions.
- **Effective Mineral and Energy Cycle:**
 - o Assess and manage mineral resources responsibly, considering environmental and cultural impacts.
 - o Explore and promote the development of sustainable and renewable energy sources for tribal use.

- o Implement energy efficiency measures in tribal buildings and infrastructure.
- **Supporting Biodiversity:**
 - o Conduct baseline inventories and ongoing monitoring of plant and animal species to understand and protect Reservation biodiversity.
 - o Implement habitat restoration and enhancement projects to support native species.
 - o Manage invasive species to minimize their impact on native ecosystems.
- **Abundance of Cultural, Medicinal, and Edible Plants:**
 - o Identify and protect traditional gathering areas for cultural, medicinal, and edible plants.
 - o Develop sustainable harvesting guidelines in collaboration with tribal elders and knowledge holders.
 - o Promote the cultivation and propagation of culturally significant plant species.
- **Clean Air and Water:**
 - o Monitor air and water quality to ensure compliance with established standards.
 - o Implement measures to prevent and mitigate air and water pollution.
 - o Promote practices that contribute to healthy air and water quality within the community.
- **Year-Round Flowing Springs and Streams:**
 - o Protect and restore natural stream flows and spring sources.
 - o Implement best management practices in land use and development to minimize impacts on water resources.
 - o Address any factors contributing to the degradation of stream and spring ecosystems.
- **Large Trees, Diverse Wildlife, Fish, and Insects:**
 - o Implement sustainable forest management practices to maintain healthy and diverse forest ecosystems, including large trees.
 - o Manage wildlife populations to ensure healthy and sustainable levels, considering cultural and ecological needs.
 - o Protect and restore aquatic habitats to support diverse fish and insect populations.
 - o Develop and implement strategies to address threats to wildlife, fish, and insect populations, such as habitat loss and climate change.

These objectives provide a starting point for more detailed planning within the IRMP. They will need to be further refined with specific actions, timelines, responsible parties, and measurable indicators to track progress toward achieving the Tribe's goals.

DESIRED FUTURE CONDITIONS

1. **Water Quality:** The La Jolla Indian Reservation's surface and groundwater consistently meet or exceed established Tribal Water Quality Standards, safeguarding human and ecological health. Regular monitoring and proactive management ensure the long-term protection of these vital resources.
2. **Watershed Health:** Reservation watersheds exhibit healthy and resilient soil structure, infiltration rates, and vegetative cover, supporting optimal hydrologic functions. This results in stable stream flows, reduced erosion, improved water quality, and enhanced drought resilience.
3. **Aquatic and Riparian Ecosystems:** Wetlands, riparian corridors, and aquatic habitats within the Reservation function as thriving natural systems, providing essential ecological services such as water filtration, flood control, and habitat for diverse plant and animal communities. Their ecological integrity is maintained and enhanced through proactive conservation and restoration efforts.
4. **Cultural Integration:** La Jolla Band culture, traditions, and practices are actively and visibly integrated into the personal, social, economic, spiritual, and political lives of all Reservation members. Intergenerational transmission of knowledge and practices is robust, ensuring their continuity and relevance.
5. **Biodiversity and Habitat Integrity:** The Reservation provides suitable and thriving habitat conditions for a diverse array of desirable native flora and fauna, maintaining a rich genetic diversity, species richness, and healthy ecosystem functions. Evolutionary processes are supported, and the interconnectedness of species and their habitats is recognized and protected.
6. **Ecologically Informed Landscapes:** Management practices across all Reservation landscapes actively mimic the patterns and processes of historic natural and traditional disturbance regimes, such as fire, wind, insect interactions, and animal grazing. This fosters resilient ecosystems adapted to natural variability and reduces the risk of catastrophic events.
7. **Viable Wildlife Populations:** Healthy and self-sustaining populations of native and desired non-native wildlife species, with appropriate age and sex structures and broad distribution, are maintained throughout the Reservation. These populations are sufficient to meet the cultural, subsistence, and recreational needs of La Jolla Indian tribal members in a sustainable manner, while also contributing to ecosystem health.
8. **Thriving Aquatic Resources:** The Reservation's waters support abundant and healthy populations of aquatic species that are culturally, ecologically, and economically important to the Tribe. Sustainable management practices ensure the long-term viability of these resources for future generations.

- 821 **9. Culturally Relevant Resource Management:** Tribal member values, priorities,
822 and traditional ecological knowledge are clearly articulated, formally documented,
823 and consistently integrated into all aspects of natural and cultural resource
824 management planning and implementation. Management decisions reflect the
825 Tribe's holistic worldview and long-term vision for the Reservation.
- 826 **10. Sustained Air Quality:** Good air quality is consistently maintained across the
827 Reservation, protecting the health of tribal members and the integrity of natural
828 ecosystems. Proactive measures are in place to prevent air pollution from both
829 internal and external sources.
- 830 **11. Healthy Rangeland Ecosystems:** A diverse mosaic of desirable native and
831 naturalized rangeland plant communities, characterized by a variety of forbs,
832 grasses, and shrubs, thrives across the Reservation. These communities
833 optimize soil health, water infiltration, carbon sequestration, and forage
834 production, supporting both ecological function and sustainable grazing
835 practices.
- 836 **12. Clean, Green, and Culturally Enriched Environment:** The Reservation is
837 maintained as a clean, green, and healthy environment that is aesthetically
838 pleasing and deeply connected to the spiritual, cultural, social, and economic
839 well-being of the tribal membership. The landscape reflects the Tribe's
840 stewardship ethic and cultural identity.
- 841 **13. Resource-Based Economic Sustainability:** The Reservation's natural and
842 cultural resources are managed in a sustainable manner that provides long-term
843 economic stability and opportunities for the tribal membership, without
844 compromising cultural values or ecological integrity. Economic activities are
845 aligned with the Tribe's vision for a healthy and prosperous future.
- 846 **14. Accessible and Safe Recreation:** A diverse range of safe and accessible
847 recreational opportunities are available year-round for tribal members of all ages
848 and abilities, prioritizing tribal member utilization while ensuring the protection
849 and sustainability of the underlying resources. These opportunities promote
850 physical health, cultural connection, and community well-being.
- 851 **15. Sovereign Governance and Resource Jurisdiction:** The La Jolla Indian
852 Reservation remains a strong and self-determining sovereign nation, actively
853 exercising its inherent jurisdiction over the Reservation, external tribal lands, and
854 all tribal historical and cultural resources. Tribal laws and policies are effectively
855 implemented and respected.
- 856 **16. Vibrant Cultural Heritage:** Significant cultural places and resources are actively
857 protected, preserved, and made accessible for tribal members. This enables a
858 deep understanding of their history and culture, facilitates the perpetuation of
859 traditional practices, and strengthens tribal identity across generations.

860 **17. Abundant Traditional Resources:** The Reservation sustains an abundance of
861 culturally important foods, medicines, and plant materials essential for the
862 creation of tools and traditional objects used in gathering, fishing, hunting,
863 weaving, ceremonial practices, and the everyday lives of tribal members.
864 Sustainable harvesting practices ensure the long-term availability of these vital
865 resources.

866 867 868 FIRE MANAGEMENT AND PREVENTION

869 Fire plays a complex and often contrasting role within the La Jolla Indian Reservation's
870 ecosystems, capable of both devastating valuable resources and enhancing ecological
871 health. The Tribe's comprehensive fire management strategy therefore encompasses
872 two critical and interconnected components: the effective suppression of unwanted
873 wildland fires to protect life, property, and resource values, and the strategic use of
874 prescribed fire to achieve specific ecological and resource management objectives.
875 Natural resources such as forests, rangelands, fish and wildlife habitats, and the quality
876 of water and air are integral to the Tribe's culture and economy. Both proactive fire
877 prevention and skillful fire management are essential tools for safeguarding these
878 invaluable assets. Furthermore, the Reservation's irreplaceable historic, archaeological,
879 and other cultural resources are highly vulnerable to irreversible damage from
880 uncontrolled fire, necessitating robust protection measures.

881 Over the past century, the combined effects of fire suppression policies and selective
882 harvesting practices have significantly altered the structure, species composition, and
883 density of the Reservation's forests. Historically, naturally occurring wildfires served as a
884 primary mechanism for natural thinning, reducing fuel loads and maintaining more open
885 forest stands. The suppression of this natural process has led to an accumulation of
886 hazardous fuels in increasingly dense forest stands, creating an elevated and persistent
887 threat of large, catastrophic wildfires. The heightened risk of losing valuable timber
888 resources has, in turn, driven the adoption of more intensive and often mechanized
889 suppression tactics. While intended to protect timber, these methods can be costly and
890 may result in greater collateral damage to other sensitive resources and the
891 environment.

892 The growing threat of climate change is projected to exacerbate wildfire risks on the
893 Reservation. Generally anticipated drier conditions are likely to increase the frequency,
894 intensity, and duration of wildfires, extending the fire season. These drier conditions will
895 also stress vegetation communities, making them more susceptible to insect

infestations and disease outbreaks, ultimately leading to increased plant mortality and a further buildup of hazardous fuel loads.

FIRE MANAGEMENT PROGRAM

The primary responsibility of the Fire Management Program is the comprehensive management of wildland fires occurring within the Reservation's boundaries. While the program's mandate does not extend to the suppression of structural or vehicle fires, wildland fire incidents often necessitate coordination with structural fire protection services, particularly in the Wildland-Urban Interface (WUI). Currently, structural fire protection capabilities are limited in some areas of the Reservation. Furthermore, there is a significant lack of dedicated tax-based funding to adequately support the Fire Department and enhance overall fire protection infrastructure.

The increasing population density within the Reservation and the expansion of residential development into wildland settings are contributing to a rise in human-caused fire ignitions and amplifying the potential for devastating damage to both natural resources and residential structures. The extensive damage caused by a significant wildland fire can lead to the destruction of homes and other infrastructure, imposing substantial financial burdens on property owners and the Tribe.

The Fire Management Program is authorized by federal law and tribal ordinances to regulate fire-related activities, including the burning of piled yard waste, campfires, and traditional practices such as meat drying. The Fire Department is planning to implement a permitting system for Reservation residents conducting pile burning, ensuring compliance with the standards set forth by the Southern California Air Quality Management District (SCAQMD) to protect air quality.

Fire Management & Prevention Goals and Objectives

The overarching goal of the Fire Management Program is to manage wildland fire in a manner that prioritizes firefighter and public safety, operates in a cost-efficient manner, and is responsive to the Tribe's land stewardship needs and other resource management goals and objectives. A key priority is to significantly reduce the danger of wildfire to human life and to minimize structural damage within the Wildland-Urban Interface (WUI).

Goal 1: Prioritize Firefighter and Public Safety in All Fire Management Activities.

- Firefighter and public safety shall be the paramount consideration in every fire management planning and operational activity.

- Maintain a safe working environment for all fire personnel by strictly adhering to national standards for qualifications, physical fitness, and the proper use of personal protective equipment, as outlined in the Wildland and Prescribed Fire Qualifications System Guide (PMS 310-1).
- Ensure clear communication protocols and risk assessment procedures are implemented on all fire incidents and prescribed burns.

Goal 2: Integrate the Ecological Role of Wildland Fire into Fire Management Planning.

- Recognize wildland fire as a crucial ecological process and a natural agent of change within the Reservation's ecosystems, incorporating this understanding into fire management planning processes.
- Develop fire management plans, programs, and activities that actively support tribal land and resource management plans and their effective implementation, where ecologically appropriate and attainable.
- Actively participate in interagency fire management operations through collaborative planning efforts and the efficient sharing of resources under formally established agreements with neighboring jurisdictions.
- Employ "Light-Hands-on-the-Land" fire suppression tactics and strategies whenever feasible to minimize the environmental impact of fire management activities.
- Continue to utilize Fire Management Planning Analysis (FMPA) as a key tool for informed program planning and decision-making.
- Strategically utilize fire, including prescribed fire, as a tool for the protection and enhancement of resource benefits under approved plans and within acceptable environmental conditions.

Goal 3: Maintain an Effective and Resource-Conscious Wildfire Suppression Capability.

- Maintain a robust and adaptable fire suppression capability that is economically viable, carefully considering the values to be protected, the associated costs of suppression, and the overarching land resource management objectives outlined in the IRMP.
- Implement aggressive and decisive suppression strategies for all wildland fires that threaten the Wildland-Urban Interface (WUI) to protect human life and property.
- Prioritize the protection of life and property values from the damaging effects of all wildland fires.

- Continuously evaluate and adopt suppression methods that minimize damage to the Reservation's diverse resource values and the surrounding environment.

Goal 4: Support and Enhance an Aggressive Wildland Fire Prevention Program.

- Maintain a proactive and responsive prescribed fire management program to reduce hazardous fuels and achieve ecological objectives.
- Implement a comprehensive wildland fire prevention program aimed at significantly reducing the occurrence of all human-caused wildland fires on the Reservation.
- Achieve a measurable reduction in unintentional human-caused ignitions by ten percent (10%) within the jurisdictional boundaries of the La Jolla Indian Reservation over the next ten years through targeted education, outreach, and enforcement efforts.
- Maintain and expand a comprehensive fuel management program that addresses multi-disciplinary fire management applications, including both hazardous fuel reduction and ecological restoration.
- Conduct and regularly update a detailed fuels inventory that is fully integrated with the Tribe's Geographic Information System (GIS) database to support long-term trend monitoring and informed fuel management planning.
- Actively engage with the tribal membership by attending district meetings and general membership meetings of the La Jolla Indian Tribe to provide regular updates and information regarding fire management activities and prevention strategies.

Goal 5: Ensure the Use of Only Trained and Qualified Personnel on All Fire Assignments.

- Ensure that all personnel involved in wildland and prescribed fire assignments meet or exceed the training standards outlined in the Wildland and Prescribed Fire Qualifications System Guide (PMS 310-1).
- Foster strong federal, state, tribal, and local interagency coordination and cooperation in all aspects of fire management through established agreements and collaborative initiatives.
- Maintain a comprehensive training program that provides a sufficient number of trained and qualified firefighters to effectively support both wildland fire suppression and prescribed fire program implementation.
- Actively promote tribal contracting and employment opportunities within the Fire Management Program whenever feasible and in accordance with Tribal employment rights policies.

- Thoroughly consider and mitigate potential air quality impacts as an integral component of the prescribed fire planning process, adhering to relevant regulations and best management practices.

Goal 6: Implement Effective Wildfire Rehabilitation Efforts.

- Develop and implement a comprehensive Burned Area Emergency Response (BAER) Management Plan to guide post-fire rehabilitation efforts.
- Strive to maintain a rapid and effective BAER response capability to assess and mitigate potential post-fire damage.
- Implement timely and appropriate rehabilitation measures on all wildland fires to minimize further damage or destruction to soil, water resources, forests, wildlife habitats, roads, native flora and fauna, and culturally significant plants and sites.

WILDFIRE IMPACTS ON RESERVATION RESOURCES

Wildfire presents a complex duality in natural resource management on the La Jolla Indian Reservation, capable of inflicting significant environmental and economic damage, particularly to valuable revenue-generating resources such as timber. Conversely, when strategically applied through prescribed burning, fire can be a vital tool in forest management for removing hazardous fuel accumulations and preparing sites for both natural and artificial regeneration, ultimately contributing to long-term forest health and resilience.

The impacts of wildfire extend across various resource categories:

Rangelands and Agricultural Lands: Wildfires can cause immediate short-term losses, including the destruction of crops and the loss of crucial grazing forage for livestock. However, fire can also yield significant long-term benefits for rangeland ecosystems by effectively reducing encroaching shrub cover, accelerating the recycling of essential nutrients back into the soil, increasing overall biomass production, stimulating the germination and establishment of desirable native seeds, and hindering the encroachment of less desirable conifer species.

Human Health: Smoke generated from wildland fires poses considerable risks to human health, contributing to both short-term and intermediate respiratory and cardiovascular issues. While many of these effects are reversible with the cessation of smoke exposure, prolonged or repeated exposure can exacerbate pre-existing conditions such as asthma and allergies, and has the potential to contribute to the development of a wider range of chronic health problems, particularly among vulnerable populations.

Visibility and Transportation: Reduced visibility caused by wildfire smoke can significantly impact scenic vistas, diminishing the aesthetic value of the Reservation's landscapes. Furthermore, dense smoke can create hazardous driving conditions along transportation routes, increasing the risk of accidents, especially in low-lying areas near water bodies (stream and river corridors) where fog is prone to formation. These same geographic areas can also be susceptible to the formation of "smog," a hazardous mixture of smoke particulates and fog moisture droplets.

Prehistoric Cultural Resources: The potential for fire damage to prehistoric cultural resources varies depending on the type of resource and the intensity and duration of the fire. High-intensity, deep-burning fires can generate sufficient heat to fracture stone tools and artifacts found at ancient campsites. Pictographs painted on granite surfaces are also vulnerable, as intense heat can cause the rock to exfoliate, leading to the loss of the painted layers.

Historic and Archaeological Sites: Historic and archaeological sites, generally located closer to the surface than prehistoric sites, are often more susceptible to fire damage. Heat can easily fracture fragile materials such as glass and ceramic items commonly found at these locations. Additionally, the structural integrity of historic buildings and features can be compromised by fire.

Impacts of Fire Suppression on Cultural Resources: Fire suppression activities, particularly those involving heavy equipment, can inadvertently cause significant damage to cultural resources. The standard practice of using bulldozers to create fire lines along the flanks of fires and ridgelines can easily disturb or destroy prehistoric campsites, historic-period home sites, and other sensitive archaeological locations. Traditional cultural features, such as cairns and other rock formations often intentionally placed on rocky ridgelines, are particularly vulnerable as these areas are frequently targeted for firebreak construction.

Positive Impacts on Cultural Plants: Fire can also play a crucial and positive role in the life cycle and health of culturally significant plant species. Many important vegetation items used in ceremonies, as food sources, and for medicinal purposes, such as biscuit root, camas, and bitterroot, rely on fire or similar disturbances to break seed dormancy, promote seedling establishment, and stimulate vigorous vegetative sprouting. The carefully controlled application of fire through prescribed burning can also be an effective tool for managing unwanted woody vegetation within specific areas, such as dry meadows, enhancing habitat for these culturally important plants.

Water Resources: Wildfires can significantly impact water resources by altering the timing, duration, and overall volume of spring runoff. Changes in the timing of snowmelt

can affect the availability of water downstream during critical periods, such as the spring irrigation season. Furthermore, the loss of vegetation cover due to fire can lead to increased surface erosion, resulting in the transport of more silt, ash, and debris into water systems, degrading water quality and altering crucial aquatic habitats. The increased use of roads, particularly in sensitive riparian zones, during fire suppression and post-fire salvage operations also poses a high risk of sediment delivery to streams. This risk is amplified if the natural buffering vegetation between roads and aquatic areas has been damaged or destroyed by the fire.

Wildlife Impacts: Wildfires generally affect wildlife populations by causing significant modifications to their habitats. A reduction in habitat diversity resulting from fire can lead to a decrease in the overall number of wildlife species present or a decline in the population levels of certain species that rely on specific habitat types. Potential risks to wildlife from wildfire include:

- **Direct Loss:** Mortality of individual animals, particularly less mobile species or young individuals, within the fire area.
- **Habitat Loss:** Destruction of critical habitats, including nesting sites, foraging areas, and shelter.
- **Loss of Threatened or Endangered Species Habitat:** Fire can severely impact already limited habitats of threatened or endangered species, potentially pushing populations further towards decline.
- **Loss of Winter Range:** Destruction of essential winter foraging areas, which can have long-lasting impacts on wildlife survival and reproduction.
- **Disruption of Travel Corridors:** Fire can create barriers to wildlife movement and increase the fragmentation of their habitats, limiting access to resources and increasing isolation.
- **Damage to Riparian and Wetland Habitats:** Fire can degrade the unique functions and habitats provided by riparian and wetland ecosystems, impacting a wide range of water-dependent wildlife species.

By providing these more detailed and specific examples, the "Wildfire Impacts" section becomes more informative and underscores the multifaceted challenges and considerations associated with fire management on the La Jolla Indian Reservation.

FIRE MANAGEMENT ZONES

Detailed descriptions and maps of the designated Fire Management Zones within the La Jolla Indian Reservation are provided in the comprehensive **La Jolla Indian**

Reservation Fire Management Plan. These zones are strategically established based on a variety of factors, including but not limited to:

- **Resource Values at Risk:** Identification of areas with high ecological, cultural, economic, or social significance that require specific fire management strategies.
- **Wildfire Risk Assessment:** Evaluation of the likelihood and potential intensity of wildfires based on fuel types, topography, weather patterns, and historical fire occurrences.
- **Wildland-Urban Interface (WUI):** Delineation of areas where human development intermingles with wildland vegetation, requiring a focus on both wildfire suppression and structural protection.
- **Ecological Considerations:** Recognition of fire-dependent ecosystems and areas where prescribed fire may be a beneficial management tool.
- **Infrastructure and Access:** Consideration of critical infrastructure, transportation corridors, and access routes for fire suppression resources.

The Fire Management Plan outlines specific management objectives, prioritized actions, and appropriate suppression strategies for each designated Fire Management Zone. These zones provide a spatial framework for implementing targeted fire management activities across the Reservation.

FUELS MANAGEMENT PROGRAM

The Fuels Management Program is a critical component of the overall Fire Management strategy and is jointly administered by the Fire Department and the Natural Resources Department of the La Jolla Band of Luiseño Indians. This program is responsible for planning, implementing, and monitoring fuel reduction and management projects on tribal trust lands within the Reservation. The primary objective of the Fuels Management Program is to strategically modify fuel characteristics to reduce the risk of severe wildland fires, enhance firefighter and public safety, and achieve specific ecological and resource management goals.

The accumulation of forest residue and the implementation of effective fuel management practices are recognized as essential for mitigating wildfire hazards on specific sites and across larger landscapes. Effective fuel management treatments employed by the program include:

- **Removal of Light Surface Fuels:** Utilizing prescribed fire under carefully controlled conditions to reduce the accumulation of highly flammable ground litter, grasses, and small woody debris.

- **Thinning of Crown Fuels (Mechanical and Hand Treatments):** Selectively removing trees and vegetation in the mid and upper canopy layers to reduce stand density, increase spacing between tree crowns, and disrupt the vertical continuity of fuels, thereby limiting the potential for torching and crown fire spread.
- **Piling (Mechanical and Hand Methods):** Cutting and stacking brush, small trees, and other woody debris into concentrated piles for subsequent burning under favorable conditions or for other utilization purposes.
- **Other Biomass Removal:** Exploring opportunities for the sustainable removal and utilization of excess biomass for purposes such as bioenergy or other wood products.

It is crucial to recognize that most fuel management treatments provide only temporary reductions in fire hazard. Vegetation regrowth and the continuous accumulation of new fuels necessitate repeated treatments over time to maintain their effectiveness. Given the significant and widespread buildup of hazardous fuels across the La Jolla Indian Reservation, the Tribe faces an enormous and long-term challenge in effectively managing this risk.

Recognizing the immediate threat to communities, the Tribe has identified **five Wildland-Urban Interface (WUI) communities** within the Reservation as high-priority areas for fuel management efforts. A **1.5-mile buffer zone** was strategically assigned around each of these communities to delineate areas where proactive fuel treatments are critically needed to enhance defensible space and improve the safety of residents and firefighters.

Within these WUI buffer zones and other identified high-risk areas, the Fuels Management Program has implemented a variety of hazardous fuel reduction treatments, including mechanical thinning operations, hand thinning crews, mechanized piling equipment, manual hand piling, and carefully planned and executed prescribed burning projects.

The specific fuel treatments recommended and implemented within different Fire Management Zones are tailored to the unique ecological conditions, fuel types, and management objectives of each zone. The effectiveness and longevity of these fuel treatments vary depending on site-specific factors such as vegetation growth rates, climate, topography, and the type of treatment applied. The Fuels Management Program continuously monitors the effectiveness of past treatments and adapts strategies to ensure the long-term reduction of wildfire risk and the achievement of broader resource management goals.

1175

NATURAL RESOURCES

The La Jolla Band of Luiseño Indians recognizes the profound interconnectedness between the health and vitality of the Reservation's natural resources and the cultural, economic, and spiritual well-being of its members. To address the impacts of past management practices and ensure the long-term sustainability of these vital assets, the Tribe is committed to developing and implementing a comprehensive Natural Resources Restoration Plan. This plan is guided by three overarching and interconnected goals:

- **Overriding Goal 1: Enhance the Ecological Integrity and Functionality of Degraded Natural Resources.** This goal focuses on actively improving the condition of key natural resource systems across the Reservation that have been negatively impacted by historical management practices. This includes targeted restoration efforts for forests (improving health, structure, and resilience), shrub-steppe ecosystems (restoring native plant communities and ecological processes), culturally significant plant populations (enhancing abundance and accessibility), and critical watershed resources (improving water quality, riparian health, and soil stability).
- **Overriding Goal 2: Implement Adaptive and Forward-Thinking Resource Management Programs.** This goal emphasizes the need to proactively evolve current resource management programs and develop new strategies that ensure improved and sustainable resource outcomes for the future. A central component of this goal is the ongoing development and adaptive management of the Integrated Resource Management Plan (IRMP) itself, ensuring it remains a dynamic and responsive framework that incorporates the best available science, traditional ecological knowledge, and the changing environmental conditions, including the impacts of climate change.
- **Overriding Goal 3: Foster Meaningful Tribal Membership Engagement and Capacity Building in Resource Restoration.** This goal underscores the critical importance of active and sustained participation of tribal members in all phases of the resource restoration process. By fostering a sense of ownership, providing educational opportunities, and incorporating traditional ecological knowledge, the Tribe aims to ensure the long-term success and cultural relevance of restoration efforts, building a legacy of stewardship for future generations.

To effectively achieve these overarching goals, the Natural Resources Restoration Plan will implement the following key objectives, which are designed to complement and support more specific restoration plans tailored to individual resource types:

- 1212 • **Objective 1: Comprehensive Resource Assessment and Knowledge**
1213 **Enhancement.** To establish a robust scientific foundation for restoration efforts,
1214 the Tribe will undertake comprehensive surveys and assessments of key
1215 Reservation resources. This includes:
 - 1216 ○ Detailed soil condition assessments to understand degradation patterns
1217 and inform soil health restoration strategies.
 - 1218 ○ Thorough evaluations of watershed impacts resulting from road
1219 infrastructure, identifying areas of erosion and sedimentation requiring
1220 remediation.
 - 1221 ○ Systematic surveys to map the locations and habitat use of big game
1222 species and sensitive avian species such as eagles, informing habitat
1223 management and conservation strategies.
 - 1224 ○ Extensive inventories of invasive plant species (weeds), mapping their
1225 distribution and abundance to prioritize control and eradication efforts.
 - 1226 ○ Comprehensive assessments of rangeland condition and production
1227 capacity to guide sustainable grazing management and restoration of
1228 native plant communities.
 - 1229 ○ Evaluation of existing range infrastructure (fences, water sources) to
1230 identify needs for repair, replacement, or expansion to support restoration
1231 goals.
 - 1232 ○ Detailed mapping and assessment of the locations, abundance, and
1233 health of culturally significant plant populations, incorporating traditional
1234 ecological knowledge in these efforts.
- 1235 • **Objective 2: Establish a Tribal Greenhouse for Native Plant Propagation.**
1236 The Tribe will design, construct, and operate a state-of-the-art tribal greenhouse
1237 facility. This greenhouse will serve as a central hub for the propagation of native
1238 plant species crucial for various restoration projects, including reforestation,
1239 riparian buffer establishment, and the enhancement of culturally important plant
1240 communities. The greenhouse will also provide opportunities for tribal member
1241 training and employment in native plant cultivation.
- 1242 • **Objective 3: Invest in Advanced Natural Resource Education and**
1243 **Workforce Development.** To build long-term tribal capacity in natural resource
1244 management, the Tribe will provide robust support for advanced education and
1245 training opportunities for tribal members interested in pursuing careers in this
1246 field. This may include scholarships, internships, mentorship programs, and
1247 partnerships with universities and other relevant institutions. The goal is to
1248 cultivate a skilled tribal workforce capable of leading and sustaining future
1249 resource management and restoration efforts.
- 1250 • **Objective 4: Acquire High-Resolution Geospatial Data for Enhanced**
1251 **Resource Management.** The Tribe will secure high-resolution Light Detection

and Ranging (LIDAR) imagery of the entire Reservation. This advanced remote sensing technology will provide detailed three-dimensional data on topography, vegetation structure, and other critical landscape features. This information will significantly enhance the accuracy and effectiveness of resource mapping, spatial analysis, and the planning and monitoring of restoration projects across various resource types, including forests, watersheds, and rangelands.

This Natural Resources Restoration Plan provides a strategic framework for the La Jolla Band of Luiseño Indians to actively heal and sustainably manage its vital natural resources. By pursuing these overarching goals and implementing these key objectives, the Tribe will work towards a future where the ecological integrity of the Reservation is restored, resource management practices are adaptive and effective, and tribal members are actively engaged as stewards of their ancestral lands.

FOREST RESTORATION

Forest restoration on the La Jolla Indian Reservation is a long-term commitment aimed at creating and maintaining resilient forest landscapes that are adapted to fire, resistant to the increasing threats of severe wildfires, and resilient to the impacts of climate change, as well as to epidemic levels of insects and disease. This proactive approach involves implementing a range of restoration activities designed to restore essential ecosystem processes. These activities focus on the careful management of key forest attributes, including vegetation structure (horizontal and vertical arrangement of plants), stand density (number of trees per unit area), species composition (types and proportions of tree and other plant species), patch size and spatial patterns (distribution of different vegetation types across the landscape), and the strategic reduction and management of fuel loading and distribution.

The overarching goal of forest restoration is to create forest ecosystems that exhibit both resistance and resilience. Resistance refers to the ability of the forest to withstand disturbances (like drought, insect outbreaks, or low-intensity fire) with minimal change. Resilience, on the other hand, is the capacity of the forest to recover quickly and effectively after a disturbance. Achieving this balance is crucial for ensuring the long-term health, productivity, and ecological integrity of the Reservation's forests, while also safeguarding human life, structures, and culturally significant resources. Furthermore, forest restoration efforts recognize and aim to facilitate the natural and beneficial role that fire plays in shaping and maintaining certain forest ecosystems on the Reservation.

Forest Restoration Goals:

- 1286 • **Goal 1: Foster Tribal Employment and Economic Opportunities:** To provide
1287 meaningful employment and economic benefits for tribal members through active
1288 participation in forest management and fire management activities, contributing
1289 to the Tribe's self-sufficiency and workforce development.
- 1290 • **Goal 2: Establish a Sustainable and Regulated Forest for Long-Term**
1291 **Benefits:** To develop and manage the Reservation's forests as a regulated and
1292 renewable resource, ensuring a sustainable supply of diverse forest products
1293 over the long term, providing a consistent revenue stream for the Tribe and
1294 supporting tribal enterprises.
- 1295 • **Goal 3: Enhance Forest Health and Vigor through Density Management:** To
1296 reduce overstocking and intense competition among trees through thinning and
1297 other density management techniques, promoting increased growth rates,
1298 improved individual tree vigor, and enhanced overall stand health and resilience.
- 1299 • **Goal 4: Promote Native Species Diversity and Restore Ecological**
1300 **Processes:** To strategically manipulate species composition, favoring the re-
1301 establishment and dominance of native, early-seral (pioneer) species that are
1302 well-adapted to the local environment and contribute to healthy ecosystem
1303 function, moving away from monocultures and promoting biodiversity.
- 1304 • **Goal 5: Mitigate the Risk of Destructive Wildland Fires:** To significantly
1305 reduce the potential for large, high-intensity wildfires that could cause severe and
1306 long-lasting damage to valuable resources, infrastructure, and cultural sites
1307 through proactive fuel management and forest structure manipulation.
- 1308 • **Goal 6: Integrate Forest Management with Other Resource Objectives:** To
1309 actively assist land managers in protecting, maintaining, and enhancing other
1310 critical resources, such as water quality and quantity, wildlife habitat, and cultural
1311 sites, through the strategic treatment of forest fuels and the implementation of
1312 ecologically sensitive forestry practices.
- 1313 • **Goal 7: Maintain and Restore Fire-Dependent Ecosystems:** To recognize and
1314 actively manage for the presence and persistence of fire-dependent ecosystems
1315 within the Reservation, understanding the crucial role that fire plays in their
1316 ecological processes and species composition.
- 1317 • **Goal 8: Implement a Comprehensive Fuels Management and Prescribed**
1318 **Fire Program:** To develop and execute a robust program of fuels management,
1319 including mechanical treatments and prescribed burning, that effectively reduces
1320 the hazard of accumulated fuels, achieves multiple resource management
1321 objectives (e.g., wildlife habitat improvement, invasive species control), and
1322 safely reintroduces the natural role of fire into appropriate ecosystems.
- 1323 • **Goal 9: Strategically Utilize Wildland Fire for Resource Benefit:** To identify
1324 and safely implement opportunities for allowing naturally ignited wildland fires to
1325 burn under specific, pre-defined conditions where they can achieve resource

management objectives (e.g., fuel reduction, ecological restoration) while minimizing risks to life, property, and other high-value resources.

Forestry Program Goals and Objectives

The overarching goals of the Forestry Program are to manage the Reservation's forestlands using integrated forest management practices that prioritize the protection and enhancement of water quality and quantity, fish and wildlife habitats, soil health, native vegetation communities, cultural resources, recreational opportunities, and scenic beauty. Simultaneously, the program aims to maintain a sustainable forest products industry that generates reliable revenue for the La Jolla Indian Tribe and provides valuable economic benefits for the people of the Reservation.

Goal 1: Improve Forest Health

- **Objectives:**

- o Systematically prioritize and implement treatment strategies in forest stands that are identified as being at high risk of or currently affected by damaging insect infestations and disease outbreaks.
- o Employ a combination of thinning techniques, stand structure manipulation, and species composition adjustments to create forest stands that exhibit greater resistance and resilience to both native and non-native insects and diseases.
- o Prioritize restoration efforts in the Reservation's ecologically and culturally significant oak woodlands to move them towards their historical ecological structure, composition, and function.
- o Implement active or passive regeneration strategies (planting or natural regeneration) in forest stands impacted by disease, favoring the establishment of a diverse range of native oak species, with a particular emphasis on disease-resistant species such as Engelmann oak (*Quercus engelmannii*).
- o Strategically utilize prescribed fire as a multifaceted tool to effectively manage fuel loadings, improve overall vegetation health and vigor, enhance plant community resilience to disturbance, and mimic natural fire regimes.
- o Develop and integrate science-based information, monitoring systems, and adaptive management tools to enable the Tribe to proactively plan for and mitigate the anticipated impacts of climate change on forest ecosystems.

Goal 2: Maintain a Sustainable Forest Products Industry

- **Objectives:**

- o Maintain a comprehensive Continuous Forest Inventory (CFI) system and conduct rigorous analysis of the collected data to accurately determine trends in forest growth, mortality rates, and standing timber volume, ensuring that all harvest levels are ecologically sustainable over the long term.
- o Establish a scientifically sound Annual Allowable Cut (AAC) for timber harvesting based on long-term, sustainable yield principles, taking into account forest growth rates, ecological considerations, and tribal management objectives.
- o Ensure a consistent and predictable supply of timber volume to support contractual obligations with tribal enterprises, fostering economic development within the Tribe.
- o Generate a reliable and consistent revenue stream for the La Jolla Indian Tribe through the responsible and sustainable harvesting of timber resources.
- o Strictly ensure that all employment and contracting opportunities associated with the forest products industry are fully compliant with the La Jolla Indian Tribal Code provisions related to Employment and Contracting for Tribal Employment Rights (TERO).

Goal 3: Implement Timely and Efficient Timber Salvage Operations

- **Objectives:**

- o Proactively identify and efficiently harvest dead, dying, and damaged trees in a timely manner to capture their economic value before significant deterioration occurs, contributing this salvaged volume towards the established Annual Allowable Cut.
- o Streamline the timber salvage permitting process to ensure rapid response to mortality events and minimize the loss of timber value.
- o Integrate specific snag (standing dead trees) and leave tree retention requirements into all salvage operations to provide essential habitat for wildlife and contribute to long-term forest structural diversity.

Goal 4: Employ Environmentally Sound and Economically Viable Logging Systems

- **Objectives:**

- o Ensure that all timber harvest operations strictly adhere to all applicable requirements and best management practices related to timber harvesting and reforestation, forest road design and maintenance, vegetation

management, and the robust protection of riparian zones and threatened and endangered species.

- o Carefully designate logging systems and equipment that demonstrably minimize damage to residual trees intended for future growth and the overall health of the remaining forest stand.
- o Prescribe the most appropriate and site-specific logging system based on a comprehensive evaluation of terrain and access constraints, clearly defined harvest treatment objectives, potential environmental impacts, protection of cultural resources, economic feasibility, and other relevant resource concerns.

Goal 5: Develop and Maintain a Safe and Environmentally Responsible Forest Road System

• Objectives:

- o Design and maintain a comprehensive forest road system that provides safe and efficient vehicle passage consistent with all approved forest practices, incorporating effective erosion control measures such as rolling dips and other drainage features, properly sized culverts, and dust mitigation strategies like road watering to minimize dust generation and road surface displacement.
- o Develop detailed transportation plans for each specific project area, clearly identifying all necessary access routes for both current and anticipated future harvest operations, as well as for fire management and other resource management activities.
- o Conduct a systematic review and update of the existing forest road system, identifying roads that are no longer viable or are not anticipated to be needed for future resource management operations, with the goal of potential decommissioning or naturalization.
- o Develop and implement comprehensive road closure plans for each project area upon the completion of all associated harvest, fire management, and planting projects to minimize long-term environmental impacts and restrict unauthorized access.
- o Ensure the implementation of particularly effective and robust road closure measures in project plans located within designated special emphasis areas (e.g., sensitive habitats, cultural sites).

Goal 6: Enhance Ecological Diversity and Promote Large Diameter Tree Retention

• Objectives:

- o Implement a strategy to retain an average of at least four large diameter trees per acre across the landscape (with a target of two dominant and two co-dominant trees), recognizing their ecological and structural importance.
- o Actively promote the development and maintenance of a diverse array of forest age classes and structural complexity across the Reservation's forested landscape, creating a mosaic of habitat types.
- o Manage for and maintain a diversity of native tree species that are ecologically appropriate for individual site conditions, enhancing overall forest resilience and biodiversity.
- o Actively work towards restoring the forest to a more historically representative ecological condition, characterized by a mosaic of different forest life stages, including both old-growth and young-growth tree stands, and a rich diversity of native plant communities and associated wildlife habitat.
- o Develop silvicultural prescriptions that explicitly support the recruitment and maintenance of down woody debris (important for soil health and wildlife habitat) and snag (standing dead trees, crucial for wildlife) at ecologically appropriate target levels.
- o Implement pre-commercial thinning and other intermediate treatments in young forest stands to promote the development of healthy, large-diameter trees in the future, enhancing long-term forest structure and carbon sequestration potential.

Goal 7: Proactively Reduce the Risk of Destructive Wildfire

• Objectives:

- o Implement strategic fuel management treatments across the landscape to effectively reduce fuel loadings, thereby minimizing the potential for wildfires that result in severe and long-lasting resource damage.
- o Prioritize and aggressively implement fuel reduction treatments in areas adjacent to communities and critical infrastructure to enhance protection from damaging wildfires within the Wildland-Urban Interface (WUI).
- o Implement public education and outreach programs aimed at reducing the occurrence of unwanted human-caused fire ignitions on the Reservation.
- o Maintain a highly trained and well-equipped fire suppression response capability to effectively and efficiently contain and extinguish wildfires when they occur.
- o Foster strong collaboration and coordination with all other natural resource departments to implement effective post-wildfire rehabilitation efforts,

1473 minimizing further damage or destruction to resources such as soil, water,
1474 forests, wildlife, roads, native flora and fauna, and culturally significant
1475 plants and sites.

1476 By implementing these comprehensive goals and objectives, the Forest Restoration and
1477 Forestry Programs will work in concert to ensure the long-term health, resilience, and
1478 sustainable management of the La Jolla Indian Reservation's valuable forest resources,
1479 benefiting both the environment and the tribal community.

1480 AGRICULTURE MANAGEMENT

1481 The prudent development and sustainable management of Indian agricultural lands,
1482 guided by the principles of integrated resource management planning, holds significant
1483 potential to generate increased economic returns for the La Jolla Band of Luiseño
1484 Indians and its members. Furthermore, a well-defined agricultural program can enhance
1485 tribal self-determination by fostering greater control over land use and economic
1486 development, promote valuable employment opportunities within the Reservation, and
1487 contribute to the overall social and economic well-being of both the Tribe and
1488 surrounding communities.

1489 To fully realize this potential, the Band may develop a comprehensive **Agricultural**
1490 **Resource Management Plan (ARMP)**. This plan would serve as a foundational
1491 document for establishing a formal and sustainable program dedicated to the
1492 responsible development and ongoing management of agricultural lands within the
1493 Reservation. The ARMP would also proactively facilitate tribal members' access to a
1494 wide range of federal, state, and private programs that promote agriculture,
1495 conservation, and related rural development initiatives generally available to the public.
1496 Moreover, the plan is specifically intended to increase awareness and accessibility of
1497 educational and training opportunities in various agricultural disciplines and land
1498 management practices, thereby enhancing the knowledge, skills, and abilities of the
1499 Tribe and its members in these critical areas.

1500 **Agriculture Goals & Objectives**

1501 The overarching goal for agriculture management on the La Jolla Indian Reservation is
1502 to develop and manage agricultural lands in accordance with the principles of integrated
1503 resource management. This approach ensures that the proper stewardship of Indian
1504 agricultural lands yields increased economic returns, strengthens tribal self-
1505 determination, actively promotes employment opportunities for tribal members, and
1506 contributes significantly to the overall social and economic well-being of the Tribe and

the surrounding communities, all while safeguarding the long-term health and productivity of the land and its associated resources.

Goal 1: Cultivate Commercially Viable and Sustainable Agricultural Practices.

• **Objectives:**

- o Proactively identify, encourage, and formally designate specific areas within the Reservation that are suitable and prioritized for agricultural production, encompassing both commercial-scale operations and smaller-scale private gardens and farms for subsistence and local markets.
- o Implement robust strategies to protect and conserve essential resources such as soil, water, and native vegetation while simultaneously maintaining the highest possible productive potential of Indian agricultural lands through the consistent application of sound and scientifically proven conservation practices and sustainable agricultural techniques.
- o Conduct thorough assessments to determine the most appropriate long-term land use for marginal or degraded agricultural lands, and where ecologically beneficial and economically feasible, recommend and facilitate the restoration of such lands back into native ecosystems, such as forests or native grasslands, to enhance biodiversity and ecological function.
- o Implement programs and provide resources to increase the overall production and expand the diversity and availability of agricultural products for purposes of tribal member subsistence, local income generation, and the creation of new employment opportunities through the strategic development of agricultural resources on tribal lands. This may include supporting value-added processing and marketing initiatives.
- o Actively maintain or restore biological diversity throughout the entire landscape, including within and around agricultural lands, by strategically establishing biodiversity corridors through developed areas that are effectively linked with adjacent natural areas, promoting habitat connectivity and wildlife movement.
- o Manage all agricultural resources in strict accordance with the principles and guidelines outlined in the Integrated Resource Management Plan (IRMP) to rigorously minimize any potential adverse impacts on other critical resource values, such as wildlife populations, fisheries, traditional cultural plants, cultural resources, and recreational opportunities. This includes implementing measures to carefully regulate water runoff, minimize soil erosion from agricultural activities, and maintain full

1544 compliance with all applicable standards for the safe and responsible
1545 application of agricultural chemicals.

1546 **Goal 2: Establish Clear and Accessible Procedures for Agricultural Operations.**

1547 • **Objectives:**

- 1548 o Develop and disseminate to individuals and commercial entities a clear,
1549 concise, and easily understandable procedure that comprehensively
1550 documents all the necessary steps and required permits for initiating and
1551 operating agricultural endeavors on Reservation lands, ensuring
1552 transparency and reducing administrative barriers. This may include
1553 establishing a dedicated point of contact for agricultural permitting and
1554 technical assistance.
- 1555 o Empower tribal members to maximize the potential benefits derived from
1556 their land by providing readily accessible agricultural technical assistance,
1557 comprehensive training programs, and relevant educational resources in
1558 crucial areas such as sustainable resource conservation practices,
1559 effective agricultural management techniques, responsible use of credit
1560 and financial resources, and successful marketing strategies for
1561 agricultural products, as well as other pertinent subject areas relevant to
1562 agricultural success.
- 1563 o Proactively assist both the Tribe as a governing body and individual Indian
1564 landowners in the process of leasing trust agricultural lands to responsible
1565 parties for a reasonable and fair annual return, ensuring that all lease
1566 agreements are consistent with prudent land management and
1567 conservation practices, and align with the broader community goals as
1568 articulated in tribal management plans and applicable tribal ordinances,
1569 promoting both economic benefit and responsible land stewardship.

1570

RANGELAND MANAGEMENT

The La Jolla Indian Reservation's diverse geography, characterized by variations in elevation, topography, soil composition, precipitation levels, and the presence of numerous water bodies, creates a mosaic of distinct plant communities across its landscape. Many of these varied plant communities hold significant value for supporting sustainable livestock grazing, contributing to both the tribal economy and cultural practices.

Current Rangeland Conditions

Over time, various rangeland improvements have been implemented to enhance the management and productivity of these areas. These improvements include fencing systems to strategically manage livestock movement and control grazing patterns, the development of reliable and accessible water sources crucial for livestock health and distribution, the installation of cattle guards at key access points to prevent unwanted livestock movement, the establishment of designated access trails to facilitate management activities and reduce habitat disturbance, and active range reseeding efforts aimed at improving forage production and the restoration of desirable plant species. However, it is widely recognized that further implementation of such beneficial improvements is essential to optimize overall rangeland health, ecological function, and long-term productivity. It is important to understand that any range improvements installed are generally considered permanent fixtures of the land and cannot be removed by a grazing permittee upon the expiration or termination of their permit, unless explicit written authorization for such removal is included within the specific terms and conditions of the permit agreement.

Currently, a significant portion of the designated range management units within the Reservation are only partially enclosed by fencing. This incomplete fencing infrastructure presents ongoing challenges for effective livestock management, making it difficult to implement controlled grazing strategies and prevent overgrazing in sensitive areas. The complete fencing of all identified rangeland units is acknowledged as a substantial financial undertaking with considerable upfront costs. Furthermore, the continuous maintenance of existing fencing infrastructure also demands significant allocations of financial resources and dedicated staff time for repairs and upkeep. Existing fences are frequently susceptible to damage from a variety of factors beyond typical wear and tear, including unintentional damage during logging operations, the destructive force of wildfires, falling trees due to natural events or disease, the movement patterns of both wild ungulates and other wildlife, and the direct impact of livestock themselves. Some fencing has been established along key road corridors to

mitigate the risk of livestock straying onto roadways, and ongoing efforts are directed towards reinforcing these critical sections to enhance their effectiveness.

NOXIOUS WEED PREVENTION AND CONTROL

Noxious and invasive weed species exhibit a strong tendency to rapidly colonize and establish themselves in areas where the native plant communities have been significantly disturbed. Common areas of such disturbance include roadsides subjected to construction and traffic, trails impacted by foot and vehicle traffic, and rangelands that have experienced the negative effects of overgrazing or the over-harvesting of native vegetation. Maintaining well-managed and ecologically healthy land is recognized as the most effective primary strategy for preventing the widespread establishment and subsequent propagation of noxious weed populations. However, even rangelands in good overall condition can remain vulnerable to invasion when natural disturbances, such as wildfires, create open ecological niches within existing plant communities, and when various animal species inadvertently act as vectors, distributing plant fragments and seeds across the landscape. To effectively monitor and manage this risk, consistent and systematic monitoring of disturbed sites is strongly recommended for a period of at least two to three years following any disturbance event or management intervention.

The invasion of non-native invasive plant species can have profound and detrimental effects on the fundamental structure and ecological function of native ecosystems by significantly altering critical soil properties. Research has shown that soils in areas that become dominated by dense infestations of noxious weeds often exhibit demonstrably lower levels of essential organic matter content and available nitrogen compared to adjacent areas supporting healthy and diverse native grassland communities. Furthermore, many non-native invasive species are highly efficient at extracting and depleting vital soil nutrient reserves to critically low levels, thereby negatively impacting the growth, reproductive success, and overall survival of native plant species that are adapted to the natural soil conditions.

Invasive non-native plant species, commonly and accurately referred to as invasive weeds, represent one of the most serious, pervasive, and ecologically damaging threats to the long-term integrity of wildlife habitat, overall biodiversity within the Reservation's ecosystems, the stability of native plant and animal populations, the economic viability of local and regional industries (including agriculture and ranching), invaluable cultural resources (including traditional plant gathering sites), and the intrinsic aesthetic and scenic values of the Reservation's natural landscape. The unchecked and unmanaged invasion of non-native plants can lead to significant and cascading economic losses for

agriculture, ranching operations, and recreation-based industries that rely on healthy and productive natural environments.

The introduction and subsequent spread of non-native plant species can fundamentally and often irreversibly alter critical ecosystem processes, including nutrient cycling, water infiltration, and fire regimes, and directly threaten the survival and long-term persistence of native plant and animal species through competition, habitat degradation, and disruption of ecological relationships. Alarming, many of the plant species traditionally gathered and utilized by tribal members for important cultural practices, including ceremonies, food sources, and medicinal purposes, can be directly displaced or entirely eliminated from their traditional gathering areas due to the aggressive invasion and competitive dominance of non-native weed species. Given the inherently invasive nature and rapid spread of many weed species, the consistent and adaptive implementation of ecologically based principles and management strategies is critically important for the effective and sustainable long-term management of these problematic plant populations.

Adaptive management for weed control emphasizes a comprehensive and holistic approach that focuses not only on the removal or suppression of invasive weeds but also, and perhaps more importantly, on actively establishing or re-establishing healthy and resilient desired native vegetation in the ecological niches previously occupied by the invasive species at an infested site. This approach recognizes that simply eliminating weeds without promoting the recovery of native plant communities can often lead to re-invasion by other undesirable species. Furthermore, adopting a strong ecological perspective in the management of weed species on infested sites significantly enhances the overall effectiveness and long-term success of the comprehensive weed management plan by addressing the underlying ecological factors that contribute to weed invasion and persistence. While the ultimate goal for the majority of infested sites is the successful restoration of diverse and functional native vegetation communities, it is recognized that in some specific and carefully considered cases, the strategic use of selected non-invasive, non-native plant species may be utilized as competitive plantings or as temporary "placeholders" in treated areas to prevent rapid re-invasion by more problematic species and to stabilize the site while native vegetation becomes established.

The La Jolla Band of Luiseño Indians fully recognizes the significant and far-reaching damage that invasive weeds inflict upon all lands and resources throughout the Reservation and has proactively developed a comprehensive **Integrated Weed Management Plan (IWMP)** to strategically address this critical environmental and economic challenge. This plan is fundamentally based on the ecological principle of

enhancing the health, resilience, and competitive ability of desired native plant species and communities, rather than solely focusing on the eradication of existing weed infestations. Effective weed control is considered an integral and essential component of responsible natural resource and overall property management on the Reservation. Preventative programs are actively implemented to maintain managed areas free of non-native species that have not yet become established within the Reservation but are known to be highly invasive and problematic elsewhere in the surrounding region. Priorities for control, reduction, or complete eradication are carefully established for weed species that have already become established on tribal properties, based on a thorough and ongoing assessment of their actual and potential ecological and economic impacts on the specific land management goals for that particular property, and on the program's realistic ability to effectively control them in the present versus attempting control at a potentially less effective and more costly later date. Control actions are only undertaken after careful consideration and evaluation indicate that the ecological and economic damage resulting from leaving the weed infestation unchecked would be demonstrably greater than the potential short-term and long-term impacts of implementing control measures using the best available and most environmentally sound methods.

Historically, the critical issue of aquatic invasive species has largely been overlooked within the Reservation's management priorities due to persistent limitations in dedicated funding and adequate staffing levels. However, recent observations and increasing awareness within the regional Cooperative Weed Management Area (CWMA) indicate that various aquatic weed species are becoming increasingly prevalent in the Reservation's water bodies, prompting more focused treatment efforts and the initiation of more extensive surveys of aquatic environments to better understand the scope of the problem. While comprehensive surveying of sensitive riparian areas (the interface between terrestrial and aquatic ecosystems) remains somewhat limited due to resource constraints, the highly invasive species Salt Cedar (*Tamarix spp.*) has been identified as a primary concern requiring targeted and sustained management efforts to prevent its further spread and ecological damage to these vital habitats.

RANGELAND GOALS & OBJECTIVES

The overarching goals for rangeland management on the La Jolla Indian Reservation are to enhance and maintain a diversity of healthy and productive rangeland conditions that provide multiple benefits for all tribal members and various natural resource programs. The aim is to foster sustainable and resilient desired plant communities that contribute to overall rangeland ecosystem health and support a variety of uses.

GOAL 1: Maintain Ecosystem Health on Rangelands**• Objectives:**

- Implement ecologically sound best management practices (BMPs) to actively enhance and maintain a diversity of rangeland conditions, promoting the establishment and persistence of sustainable and resilient native vegetation communities.
- Utilize BMPs such as carefully planned grazing rotation systems and targeted vegetation management techniques to ensure an abundant and consistent supply of high-quality forage for both domestic livestock and native wildlife populations.
- Strategically retain rangeland areas in their natural, undeveloped state when the recreational, cultural, aesthetic, or traditional values associated with that rangeland represent the highest and best long-term use of the land, recognizing the intrinsic value of these intact ecosystems.
- Employ adaptive grazing strategies as a tool to actively improve the habitat quality and diversity of native plant and animal communities, including habitats essential for threatened, endangered, special status, and culturally important species, ultimately benefiting wildlife, fisheries, recreation, aesthetics, cultural practices, and other traditional uses of rangelands.
- Carefully consider wildlife habitat patch size and the potential for habitat fragmentation when designing and implementing any vegetation management projects on rangelands, aiming to maintain connectivity and minimize negative impacts on wildlife movement and habitat utilization.
- Implement the use of wildlife-friendly fencing designs and construction techniques, adhering to Natural Resources Conservation Service (NRCS) specifications, on all rangeland areas managed primarily for wildlife, and actively encourage other tribal departments and grazing permittees to adopt these techniques to reduce potential negative impacts on wildlife movement in sensitive areas.

GOAL 2: Manage Rangelands to Protect Soils, Water, Riparian Areas, and Prevent Erosion**• Objectives:**

- Implement proactive measures to protect valuable rangeland resources by carefully managing vegetation cover, actively improving overall ground cover and vegetation vigor through sustainable grazing practices, protecting sensitive soils through native grass reseeding efforts in

disturbed areas, and strategically regulating water runoff patterns to effectively minimize soil erosion and sedimentation.

- o Actively re-establish and enhance populations of native plant species that are palatable and provide nutritious forage for both livestock and native wildlife in areas that have been disturbed by past activities or natural events.
- o Implement a well-designed deferred rotation grazing system across appropriate rangeland units to enhance the retention of soil moisture, improve soil health and infiltration rates, and potentially increase both the duration and magnitude of stream flow in adjacent riparian areas.
- o Foster strong collaboration with other natural resource programs within the Tribe to cooperatively develop and sustainably manage riparian grazing areas located adjacent to designated watershed protection zones, with the primary goal of protecting fish populations, wildlife habitat, water quality, recreational values, and significant cultural resources associated with these sensitive ecosystems.

GOAL 3: Protect Natural Resources through Monitoring, Compliance, and Enforcement

- **Objectives:**

- o Conduct regular and systematic assessments of ecological site trends and overall biotic integrity on rangelands through comprehensive monitoring programs. These monitoring efforts will focus on assessing and classifying plant community composition, tracking changes in vegetation over time, evaluating forage utilization rates by herbivores, assessing soil and site stability, and evaluating hydrologic function to inform adaptive management strategies.
- o Increase the active enforcement of compliance with established grazing permit terms and conditions to effectively reduce instances of heavy or inappropriate grazing, thereby improving forage availability for livestock, big game, and other wildlife, and protecting desired native plant species and sensitive riparian areas from degradation.
- o Enhance and expand range management education and outreach programs specifically targeted towards livestock operators, tribal members interested in grazing, and relevant tribal and Bureau of Indian Affairs (BIA) employees to promote understanding of sustainable grazing practices and rangeland stewardship principles.

GOAL 4: Utilize Livestock Strategies to Promote Rangeland Health

- **Objectives:**

- o Accurately calculate the carrying capacity of individual rangeland units through ongoing monitoring of available forage resources, and then strategically adjust livestock stocking rates to ensure sustainable grazing levels that also accommodate the forage needs of native wildlife populations.
- o Prepare individualized Range Unit Conservation Plans for each designated grazing unit, with the primary goal of promoting long-term rangeland health, encouraging the adoption of sound grazing management practices by permittees, and ensuring the effective protection of all associated natural resources within the unit.
- o Conduct thorough evaluations of the effectiveness of implemented Best Management Practices (BMPs) on each designated range unit to assess their contribution to rangeland health and identify areas for potential improvement or adaptive management adjustments.
- o Systematically assess each rangeland unit to determine if the installation of additional infrastructure, such as fencing and water developments, will be necessary to effectively encourage and facilitate the implementation of beneficial deferred rotation grazing systems.
- o Develop and strategically implement off-site water points and appropriate salting practices, along with more effective livestock rotation strategies as needed, to achieve more uniform and effective utilization of available forage across the landscape through better distribution of livestock, while simultaneously reducing livestock impacts in particularly sensitive environmental areas.
- o Install cattle guards at key access routes to prevent unwanted livestock movement between management units and onto roadways, enhancing both rangeland management and public safety.
- o Implement specific management practices aimed at minimizing the potential negative impacts of both livestock grazing and native wildlife herbivory on newly planted tree seedlings in reforestation areas and on areas actively undergoing native grass re-establishment efforts.

GOAL 5: Control the Spread of Invasive Species on Rangelands

- **Objectives:**

- o Implement comprehensive integrated weed management (IWM) strategies across all rangelands to actively preserve and enhance native plant species and communities, protect habitats of threatened and endangered

species, and safeguard populations of traditional cultural plants from the negative impacts of invasive weeds.

- o Conduct annual monitoring of the presence, abundance, and spatial distribution of weed species across rangelands to effectively document population trends and distributions. Based on this data, develop targeted management plans for noxious weed species, with the highest priority given to the early detection and rapid response to newly invading species.
- o Adhere to best management practices, as outlined in the current Integrated Weed Management Plan (IWMP), to minimize any potential damage to desirable native plant species when utilizing herbicides or other control methods for the management of noxious weeds.
- o Where ecologically appropriate and feasible, explore and implement the use of California State Department of Food and Agriculture (CDFA) and USDA-approved biological weed control agents for the long-term and sustainable control of invasive plant species.
- o When any treatment for the control of terrestrial, riparian, or aquatic weed species is proposed, ensure strict adherence to all applicable California State, federal, and tribal laws, regulations, and permitting requirements.
- o Utilize proactive inventory and survey activities to facilitate the early detection of new occurrences of invasive plant species on rangelands, enabling the timely initiation of effective treatment and containment programs before they become widespread.
- o Explore and strategically utilize grazing by livestock as a potential tool for the targeted control and reduction of certain invasive plant species, where ecologically appropriate and carefully managed.

GOAL 6: Fire Management on Rangelands

- **Objectives:**

- o Strategically utilize prescribed fire as a valuable tool to effectively manage fuel loads, improve overall vegetation health and vigor, and enhance the resilience of native plant communities to future disturbances, while directly contributing to the achievement of broader natural resource management objectives.
- o In areas disturbed by unplanned wildfires, promptly implement appropriate post-fire management practices to minimize further damage or destruction to critical resources, including soil stability, water quality, forest regeneration, wildlife habitat, road infrastructure, native fauna and flora, and culturally significant plant communities.

- 1863 o Explore the potential for carefully managed livestock grazing as a strategic
1864 tool to reduce hazardous fuel loads in specific rangeland areas, thereby
1865 mitigating the potential for severe wildfires that could result in significant
1866 resource damage.
- 1867 o Maintain a highly trained and well-equipped fire suppression response
1868 capability to effectively and efficiently manage and extinguish any wildfires
1869 that may ignite on rangelands, minimizing their negative impacts.

1870 **Wildlife and Habitat**

1871 The La Jolla Indian Reservation encompasses a diverse array of habitats that are vital
1872 to the health and survival of numerous fish and wildlife species. These important
1873 habitats include rivers, perennial and intermittent streams, crucial riparian zones along
1874 waterways, diverse wetland ecosystems, expansive shrubland and scrub communities,
1875 and mature forest stands. Within these broad habitat types exist critical structural
1876 features such as standing dead trees (snags) providing nesting and foraging sites, rocky
1877 cliffs offering refuge and breeding areas, accumulations of woody debris in aquatic and
1878 terrestrial environments providing cover and nutrient cycling, and old-growth trees with
1879 unique ecological characteristics essential for certain wildlife species. Notably, some of
1880 the wildlife species inhabiting the Reservation are federally listed as endangered,
1881 threatened, or are designated as species of special concern under the Endangered
1882 Species Act, highlighting the ecological significance of the area. The Reservation's
1883 ecosystems have been shaped and altered over time by a complex interplay of human
1884 activities and natural disturbances, which have collectively impacted both the quantity
1885 and the overall quality of available fish and wildlife habitat. As a result, the Natural
1886 Resources and Environmental Department faces the significant challenge of utilizing the
1887 best available scientific knowledge and adaptive management principles to achieve the
1888 desired future conditions for this ecologically important landscape. The La Jolla Indian
1889 Reservation provides essential habitat for hundreds of species of birds, mammals, and
1890 herptiles (reptiles and amphibians). This rich biodiversity includes a variety of game
1891 birds and game animals that provide important subsistence food sources and
1892 recreational opportunities for tribal members, underscoring the cultural and economic
1893 value of these wildlife resources.

1894

WILDLIFE GOALS & OBJECTIVES

The overarching goal for wildlife management on the La Jolla Indian Reservation is to maintain and effectively protect viable and self-sustaining populations (in terms of both numbers and the spatial distribution of reproductive individuals) of all native and desired non-native species of wildlife

Goal 1: Ensure Healthy and Self-Sustaining Wildlife Populations for Tribal Use and Enjoyment

This goal focuses on maintaining robust and self-sustaining populations of both game and non-game wildlife species on the Reservation to support the cultural practices, subsistence needs, and recreational activities of the tribal membership.

Objectives:

- **Develop and Implement a Comprehensive Wildlife Management Plan:** This overarching plan will serve as the guiding document for all wildlife management activities and will include the following key elements:
 - **Establish Population Objectives and Harvest Strategies for Game Species:** Define specific, measurable, achievable, relevant, and time-bound (SMART) population objectives for key game species. Develop and implement sustainable harvest management strategies (e.g., hunting regulations, season lengths, bag limits) and establish a system to regularly monitor and evaluate whether these population objectives are being met under the current management framework.
 - **Determine Sustainable Harvest Levels and Permit Allocation:** Utilize current and reliable data on wildlife population status, population trends, and harvest data to scientifically determine the appropriate number of hunting and trapping tags and permits available for both game and select non-game species, ensuring that harvest levels remain sustainable and do not negatively impact long-term population viability.
 - **Conduct Regular Population Monitoring and Habitat Assessments:** Implement annual population surveys and monitoring programs for key wildlife species, establishing specific annual or seasonal composition targets (e.g., sex ratios, age structures) for select populations. Simultaneously, conduct assessments of habitat use and availability to understand the ecological factors influencing wildlife populations and inform habitat management efforts.

- o **Prioritize Conservation of Sensitive Species:** Develop and implement focused population assessments, tailored management strategies, and long-term monitoring plans for federally listed threatened and endangered species, as well as species identified as tribal priorities due to cultural significance or conservation concerns. These efforts will be conducted in close partnership with relevant local tribal and non-tribal organizations, as well as federal and state agencies to leverage expertise and resources.
- o **Minimize Wildlife Mortality from Disease and Contaminants:** Proactively participate in organized federal and state wildlife disease surveillance programs to monitor for and minimize the impacts of diseases and environmental contaminants on wild animal populations within the Reservation.
- o **Conduct Surveillance for Mortality Sources:** Implement systematic surveillance monitoring programs to identify potential sources of unusual or significant wildlife mortality events, including those associated with potential disease outbreaks or environmental contamination.
- o **Adhere to Established Protocols for Disease Reporting and Management:** Strictly follow all applicable state and federal procedures for reporting any occurrences of significant wildlife diseases. Ensure that associated wildlife management plans are promptly updated to incorporate relevant disease management protocols and mitigation strategies.
- o **Maintain Wildlife Diversity through Species-Specific Management:** Strive to maintain a diverse and healthy suite of native and desired non-native wildlife species on the Reservation. As resources (time and funding) allow, develop specific management plans, incorporating the best available scientific information and establishing clear habitat targets, for individual species to ensure their long-term viability and ecological roles within the Reservation's ecosystems.

Goal 2: Protect, Maintain, and Restore Key Wildlife Habitats

This goal emphasizes the importance of safeguarding, managing, and actively restoring the diverse array of habitats necessary to support healthy and productive forest and plant communities, and the dependent wildlife populations associated with these ecosystems across the Reservation.

Objectives:

- **Enhance Habitat Quality:** Implement targeted actions to improve the ecological condition and functionality of habitats crucial for focal wildlife species, addressing

factors such as vegetation structure, species diversity, water availability, and the presence of essential habitat features (e.g., snags, downed wood).

- **Promote Wildlife-Friendly Infrastructure:** Implement the use of fencing techniques that adhere to Natural Resources Conservation Service (NRCS) wildlife-friendly specifications on all lands managed primarily for wildlife. Furthermore, actively encourage other tribal departments and entities to adopt these techniques in their projects to minimize barriers to wildlife movement and reduce potential for injury or mortality.
- **Strategic Habitat Mapping and Prioritization:** Utilize advanced mapping technologies (e.g., GIS) to accurately identify and delineate key critical and priority habitat areas across the Reservation. This information will be used to strategically focus protection, enhancement, and restoration efforts to maximize the quantity and quality of essential wildlife habitats.
- **Maintain and Restore Habitat Connectivity:** Identify, protect, and where necessary, restore vital wildlife corridors and ensure adequate habitat patch sizes within and between core habitat areas. This is crucial for facilitating genetic exchange among wildlife populations and ensuring their ability to effectively utilize essential resources across the landscape.
- **Foster Habitat Diversity:** Strive to maintain a diverse mosaic of healthy wildlife habitats across the Reservation, reflecting the natural ecological variability of the landscape. As resources allow, develop specific management plans, incorporating best management practices and measurable targets, for each major forest series and other priority habitat types to support a wide range of wildlife species.
- **Monitor Habitat Condition and Management Effectiveness:** Implement long-term monitoring programs in sensitive habitats across the Reservation to regularly assess their ecological condition in relation to the needs of key priority wildlife species. This monitoring will also be used to evaluate the effectiveness of implemented management actions in achieving desired future habitat conditions.
- **Prioritize Native Habitat Restoration:** Actively identify, prioritize, and implement projects focused on the restoration and enhancement of degraded wildlife habitat. Preference will be given to the restoration of native plant communities, including grasses, forbs, shrubs, and trees, in appropriate areas throughout the Reservation to maximize ecological benefits for native wildlife.
- **Integrate Invasive Species Management in Wildlife Areas:** Continue the development and rigorous implementation of the comprehensive Invasive Species Management Plan specifically within designated Wildlife Management Areas to mitigate the negative impacts of non-native plants on native habitats and wildlife populations.

- **Interdepartmental Collaboration for Habitat Protection:** Foster strong collaboration and communication with other tribal natural resource programs (e.g., Forestry, Agriculture, Water Resources) to collectively identify and implement measures to protect sensitive habitats and areas on the Reservation that are particularly vulnerable to detrimental impacts from various land use activities.
- **Integrate Wildlife Needs into Land Management Planning:** Actively support and assist in the development and implementation of land management planning and compliance efforts related to roads, forestry, land acquisition, fire and fuels management, and environmental mitigation. This ensures that the needs of wildlife and their habitats are adequately considered and integrated into all relevant land management decisions.
- **Assess and Mitigate Land Use Impacts:** Systematically assess the potential impacts of various land use activities on critical and sensitive wildlife areas and populations. Implement measures to avoid, minimize, and mitigate these impacts wherever possible to reduce negative consequences for wildlife.
- **Targeted Habitat and Harvest Recommendations in Game Reserves:** Within the designated boundaries of game reserves, provide specific, wildlife-focused recommendations for habitat management and sustainable harvest strategies to restore and improve priority habitats and enhance populations of key game species and other wildlife of concern.

GOAL 3: Establish Special Emphasis Management Areas

This goal focuses on creating strategically designated areas with enhanced management to provide specific benefits for tribal members, significantly improve wildlife habitat, restore ecological connectivity across the landscape, and promote the recovery of fully functioning ecosystems throughout the Reservation.

Objectives:

- **Collaborative Identification of Critical Habitat Networks:** Coordinate closely with other tribal natural resource programs to collaboratively define critical and priority wildlife habitat areas and identify key corridors that maintain ecological connectivity between these areas. This collaborative approach will support viable populations of culturally significant wildlife and traditional cultural plant species by ensuring access to necessary resources and facilitating movement.
- **Develop Integrated Special Emphasis Areas:** Establish and manage special emphasis management areas with the explicit aim of improving and restoring the quality of habitat required to sustain healthy and diverse communities of terrestrial and aquatic fish and wildlife, native plants, healthy soils, and functional

natural resources at a watershed scale. Initial priority will be given to the following key habitat types and ecosystems: oak woodlands, riparian corridors, mixed hardwood conifer forests, chaparral and desert sage scrub, and grassland and/or meadow systems.

- **Regional Representation for Tribal Resource Interests:** Ensure active and informed regional representation by the Tribe's Resource Department biologists in relevant State and Federal resource management activities and planning processes that may affect the Reservation's natural resources, advocating for tribal interests and ensuring the protection and sustainable management of Reservation resources.

GOAL 4: Maintain and Minimize Wildlife-Related Threats to Public Health and Safety

Objectives:

- **Public Education on Wildlife Safety:** Develop and disseminate informative fact sheets and outreach materials on wildlife disease prevention and responsible “living with wildlife” practices to educate the tribal community and the public on how to safely interact with wildlife and minimize potential risks.
- **Nuisance Wildlife Management:** Implement a system for monitoring nuisance wildlife occurrences using appropriate techniques and provide timely and effective responses to complaints involving nuisance or potentially dangerous animals, prioritizing public safety while considering humane and ecologically sound management approaches.

GOAL 5: Maintain Resilient Ecosystems in Response to Climate Change and Disturbance Events

Objectives:

- **Collaborative Climate Change Education and Planning:** Actively collaborate and coordinate with all other tribal agencies and relevant regional partners to gather and share information and learn as much as possible about the anticipated effects of climate change on the modification of natural disturbance regimes (e.g., fire, drought, extreme weather events).
- **Long-Term Climate Change Monitoring:** Through collaborative efforts with multiple agencies and research institutions, implement long-term monitoring programs to track changes occurring in relation to climate change, including shifts in habitat connectivity, alterations in wildlife population dynamics, and changes in ecosystem processes.

- **Proactive Ecosystem Resilience Planning:** Work closely with all other tribal agencies and regional partners to develop and implement proactive management plans and strategies aimed at ensuring that the Reservation's ecosystems are managed to be as resilient as possible to the increasing frequency and intensity of large-scale disturbance events associated with climate change.

Environmental Protection Office

The watersheds and airsheds of the La Jolla Indian Reservation are subject to a range of impacts stemming from commercial activities, industrial operations, residential development, and recreational pursuits both on and off-Reservation. Recognizing the critical need to safeguard the Reservation's natural resources, the Environmental Protection Office (EPO) has been established and mandated to monitor practices and conditions that affect the air, water, and soil within its jurisdictional boundaries. This vital responsibility encompasses the oversight and regulation of several key areas, including:

- **On-Site Wastewater Treatment and Disposal:** Ensuring the proper design, installation, operation, and maintenance of septic systems and other on-site wastewater treatment facilities to prevent contamination of surface and groundwater resources and protect public health.
- **Hazardous Substance Control:** Implementing and enforcing regulations and best management practices for the handling, storage, transportation, and disposal of hazardous substances to prevent spills, leaks, and other releases that could contaminate the environment. This also includes overseeing the cleanup of contaminated sites.
- **Air Emissions Control:** Monitoring and regulating sources of air pollutants to ensure compliance with tribal and federal air quality standards, minimizing the release of harmful emissions from various activities such as burning, industrial processes, and vehicular traffic.
- **Water Quality Standards:** Developing, implementing, and enforcing water quality standards for surface and groundwater to protect their beneficial uses, including ecological health, cultural practices, subsistence activities, recreation, and potential economic development.

In addition to its regulatory functions, the EPO plays a crucial role in proactively monitoring the Reservation's environmental resources to comprehensively assess air and water quality conditions, track rates of soil erosion and sedimentation, and identify potential environmental concerns. The Department also provides essential technical assistance to tribal members, departments, and external entities in obtaining necessary

environmental permits for a wide range of activities, including water use permits, on-site wastewater system approvals, air emissions burn permits, forest practice authorizations, and hydraulic project approvals. It is important to note that while the EPO plays a key role in local permitting and compliance, the Environmental Protection Agency (EPA) retains its federal authority to permit certain activities, such as water discharge under the Clean Water Act.

The environmental health of the Reservation's air, water, and soil is also significantly influenced by off-Reservation activities that originate from sources beyond its immediate jurisdictional control. These include potential impacts from the operation of the nearby gravel pit and commercial agricultural practices conducted by numerous landowners and businesses in the surrounding areas. These transboundary impacts often involve multiple pollutants and responsible parties, necessitating the EPO to actively represent the Tribe's interests in addressing these complex issues through collaborative engagement with other tribal governments, state agencies, federal authorities, and even international bodies when necessary.

The Environmental Protection Office is also tasked with addressing the legacy of past land conversion and development practices that occurred over many decades prior to the establishment and enforcement of comprehensive environmental protections. The cumulative effects of these historical activities include chronic and elevated rates of soil erosion resulting from inadequate road construction and maintenance practices, the degradation of vital riparian vegetation along waterways, and alterations to natural stream hydrology, such as stream channelization and incision. Furthermore, the Department actively addresses ongoing environmental impacts from current activities to ensure that they are conducted in strict compliance with established tribal policies and all applicable federal environmental laws and regulations. To effectively carry out its multifaceted responsibilities, the Environmental Protection Office provides specialized expertise in a wide range of environmental sciences, including ecology, soil science, hydrology, and environmental chemistry, as well as in crucial areas such as watershed management, tribal and federal water rights and water law, and the complex landscape of environmental laws and regulations.

The EPO also plays a vital role in the Tribe's Project Proposal Process, diligently reviewing proposed development projects on Reservation lands. During this review, the Department meticulously assesses the potential impacts of these projects on the Reservation's soil, water, and air quality, and provides informed recommendations to project proponents. These recommendations are designed to guide project activities in a manner that better protects and preserves the valuable soil, water, and air resources of the Reservation for current and future generations.

Community Concerns: The Tribe's Holistic Goal and Desired Future Conditions, as articulated in official resolutions and planning documents, clearly reflect the tribal community's deep-seated desire for a healthy environment characterized by rich biodiversity and a vibrant cultural connection to the land. While community members surveyed indicated varying levels of awareness regarding the formal articulation of these goals, those who were aware largely acknowledged the Tribe's ongoing progress towards achieving them.

Regarding specific environmental conditions, most Reservation residents reported that they believe the quality of their drinking water is generally good or adequate. However, a notable portion expressed concerns that the drinking water quality is poor or contains an excessive amount of chlorine, suggesting a need for further investigation and potential improvements to water treatment or distribution systems. Tribal members generally perceived the air quality on the La Jolla Indian Reservation to be good to very good for most of the year. However, some residents expressed specific concerns that the air quality on the Reservation tends to be noticeably worse during the summer months compared to other times of the year, potentially due to seasonal factors such as increased vehicle traffic, agricultural activities in the region, or regional air pollution patterns. A significant number of tribal members rely on firewood as a supplementary or primary source of heat during the winter months. Of this group, the majority utilize wood stoves rather than open fireplaces for burning firewood and reported firewood as their primary source of heat during the winter, highlighting the importance of addressing potential air quality impacts from wood smoke. When asked about their perceptions of unpaved roads on the Reservation, tribal members overwhelmingly expressed the opinion that these roads should be adequately maintained to prevent environmental damage. The lack of consistent maintenance on many unpaved roads has resulted in significant soil erosion, which in turn degrades valuable wildlife habitat and negatively impacts water quality in nearby streams and water bodies.

ENVIRONMENTAL PROTECTION OFFICE GOALS & OBJECTIVES

The overarching goal of the Environmental Protection Office is to achieve and maintain a healthy environment within the exterior boundaries of the La Jolla Indian Reservation. This includes fostering fully functioning ecological systems characterized by robust biodiversity, clean and abundant water resources, clean air quality, and healthy soils, all of which are essential to support native plant and animal communities, uphold cherished tribal values, and sustain traditional subsistence uses of the land and its resources.

AIR QUALITY MANAGEMENT

The La Jolla Indian Reservation is geographically located within the jurisdiction of the Southern California Air Quality Management District (SCAQMD). SCAQMD is the regional agency responsible for regulating air pollution across the greater Los Angeles metropolitan area and surrounding regions. An airshed is a defined geographical area where local topography and prevailing meteorological conditions play a significant role in influencing the movement and dispersion of air masses and their associated emissions. Within such airsheds, topographical features like valleys and mountain ranges can sometimes act to channel or trap air pollutants, including smoke from wildfires or emissions from residential wood burning, leading to localized areas of diminished air quality within the Reservation's airshed.

To gain a comprehensive understanding of the air pollutants present within the Reservation's airshed, the Tribe's dedicated Air Quality Program conducts regular and thorough air emissions inventories. These inventories serve to quantify the total release of key air pollutants from various sources. Currently, the program focuses on reporting levels of four of the six criteria pollutants regulated under the federal Clean Air Act: particulate matter (both fine particles, PM_{2.5}, and larger particles, PM₁₀), carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂). In addition to these criteria pollutants, the program also tracks and reports on volatile organic compounds (VOCs). VOCs are of particular concern because they act as significant precursors in the photochemical formation of ground-level ozone (O₃), which is itself a major component of smog and a significant air pollutant with detrimental health effects.

The Air Quality Program strategically utilizes the detailed data collected through these comprehensive emissions inventories to carefully assess the total quantity of air pollutants originating from the diverse range of emission source categories located within the airsheds that influence the air quality on the Reservation. This critical information then forms the scientific basis for the development and implementation of targeted strategies aimed at effectively reducing those emissions that are identified as

2212 having the most significant adverse impacts on both the overall air quality and the public
2213 health of tribal members and Reservation residents. Furthermore, the valuable data
2214 derived from the emissions inventories serves as a crucial supplement to the real-time
2215 data obtained from the Tribe's direct air quality monitoring efforts. This integrated
2216 approach provides a more complete and nuanced understanding of long-term air quality
2217 trends, helps to pinpoint specific areas of concern within the Reservation, and allows for
2218 a more informed and effective response to air quality challenges. By consistently
2219 conducting these successive emissions inventories over an extended period, the Tribe
2220 gains the ability to accurately track trends in both the number of emission sources
2221 present within the airshed and the overall quantity of various pollutants being released
2222 into the atmosphere over time. This longitudinal data is essential for evaluating the
2223 effectiveness of implemented control strategies and for anticipating future air quality
2224 management needs.

2225 Air pollution within the Reservation's airshed originates from two primary categories of
2226 sources: point sources and non-point sources. Point sources are typically defined as
2227 individual, stationary locations that have identifiable emissions outlets through which
2228 pollutants are directly released into the atmosphere. Examples of potential point
2229 sources located on or in the immediate vicinity of the Reservation could include
2230 permitted industrial facilities, such as manufacturing plants or processing facilities, and
2231 gasoline dispensing stations with their associated evaporative emissions. In contrast,
2232 non-point sources are characterized as a collection of numerous similar emission units
2233 that are distributed across a broader geographical area, making their individual
2234 emissions more diffuse and challenging to track to a single outlet. A significant non-
2235 point source of air pollution on the La Jolla Indian Reservation, particularly during
2236 periods of low wind speeds and stable atmospheric conditions known as inversions
2237 (where a layer of warm air traps cooler air near the ground), is the emissions generated
2238 from residential wood stoves used for heating homes during the colder months.
2239 Wildfires, whether occurring on or near the Reservation, represent another major and
2240 often episodic non-point source of air pollution. In years characterized by large and
2241 intense wildfires in the region, the smoke and particulate matter emissions from these
2242 fires can become the single largest contributor to air pollution affecting the Reservation's
2243 air quality, often overwhelming other emission sources. Finally, particulate matter itself,
2244 particularly in the form of dust generated from unpaved roads due to vehicular traffic
2245 and wind erosion of exposed soils, constitutes another significant non-point source of air
2246 pollution that can impact local air quality, especially during dry periods.

2247 To directly assess and continuously monitor the prevailing air quality conditions within
2248 the Reservation's airshed, the Environmental Protection Office (EPO) operates a
2249 strategically located permanent continuous air quality monitoring station. This

sophisticated monitoring equipment is specifically designed to measure the concentration of fine particulate matter with a diameter of 2.5 microns or smaller (PM_{2.5}). PM_{2.5} is of particular concern to public health because its small size allows it to penetrate deeply into the lungs, posing significant risks to respiratory and cardiovascular health. The continuous monitors provide near real-time measurements of these critical pollutant concentrations, typically reported in micrograms per cubic meter of air (µg/m³). This timely air quality data serves as an invaluable tool for making informed and proactive decisions regarding the implementation of health-related burn bans during periods of poor air quality, issuing timely air quality advisories to inform the community about potential health risks, effectively guiding smoke management strategies during both planned prescribed burns for ecological management and unplanned wildfire events, and allowing for direct and meaningful comparison of local air quality data against the National Ambient Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency (EPA). These NAAQS are legally mandated air quality standards designed to protect both public health, including sensitive populations such as children and the elderly, and public welfare, including protection against visibility impairment and damage to vegetation and ecosystems.

Goal 1: Protect Tribal Members from Adverse Effects of Air Pollution

- **Objectives:**

- o Establish and maintain a robust long-term air quality monitoring program. This program will systematically collect comprehensive data that accurately characterizes the nature, concentration, and temporal trends of air pollutants present on the Reservation and within tribal communities over extended periods. The resulting data will be crucial for identifying potential long-term trends in air quality and for assessing potential risks to public health.
- o Actively engage in collaborative partnerships with the Environmental Protection Agency (EPA), other relevant tribal programs (such as health services and emergency management), private facilities operating within the Reservation's boundaries, and other pertinent government agencies (at the federal, state, and local levels). These collaborations will focus on the effective implementation of air quality permitting processes, robust regulatory oversight of emission sources, and the provision of comprehensive compliance assistance programs. The overarching aim of these efforts is to proactively prevent and significantly reduce the incidence of air pollution from all identified sources within the Reservation's airshed.

- o Develop, formally adopt, and diligently implement a comprehensive health-related burn ban program. This program will incorporate clearly defined and scientifically defensible protocols for determining the specific conditions (based on real-time air quality monitoring data and relevant meteorological conditions, such as stagnant air masses or inversions) under which burn bans become necessary to protect public health. The program will also establish effective and timely mechanisms for disseminating notifications of active burn bans to all affected areas and residents of the Reservation, ensuring that community members are informed and can take appropriate protective measures.
- o Proactively develop and deliver accessible educational and public outreach opportunities specifically tailored for tribal members and all other residents of the Reservation. These initiatives will aim to enhance understanding of their individual and collective roles in preventing air pollution. The outreach will promote practical alternatives to the open burning of waste or vegetation, and will provide clear, actionable steps that individuals and households can take to minimize their own emissions of various air pollutants from sources such as vehicles, wood stoves, and outdoor activities.
- o Develop and implement a comprehensive and coordinated smoke management program in close collaboration with key stakeholder groups, including regional fire management organizations such as the Mount Tolman Fire Center (or its equivalent in Southern California). The primary objective of this program will be to proactively minimize the exposure of tribal members and Reservation residents to smoke generated from both planned prescribed burns conducted for essential ecological management purposes (such as fuel reduction and habitat restoration) and from unplanned wildfires that may occur within or near the Reservation. This will involve strategies for predicting smoke dispersion, issuing timely public health advisories, and implementing best management practices during burning activities.

Goal 2: Enhance and Protect Air Quality Across the Reservation

- **Objectives:**

- o Implement systematic methods to accurately identify specific sources of air pollution problems within the Reservation's airshed. This includes pinpointing geographic areas that consistently experience elevated levels of pollutants and determining the specific timeframes (e.g., particular seasons, specific meteorological conditions, or times of day) during which

air quality is of particular concern and may pose the greatest risk to public health or the environment.

- o Establish formally designated air quality emphasis areas within the Reservation or identify specific Reservation-wide air quality issues that warrant focused attention and targeted intervention. For these prioritized areas or issues, the program will develop and implement special projects and initiatives specifically designed to achieve measurable and sustainable improvements in air quality.
- o Maintain a continuously updated and comprehensive inventory of air pollutant emissions originating from all known sources located within the Reservation's airshed. The program will actively work to expand the categories of data collected in the inventory to provide an increasingly detailed and accurate picture of the overall air emissions profile of the Reservation. A comprehensive air emissions report, summarizing the key findings and trends, will be prepared and formally distributed to tribal leadership and the general community on a regular triennial (every three years) basis to ensure transparency, inform policy decisions, and promote community awareness of air quality issues.
- o Actively participate as a key stakeholder in the Tribal Project Proposal Process (3P), as well as in the review processes for land use permits and shoreline permits. Furthermore, the program will maintain active involvement in relevant advisory committees, such as the Solid Waste Advisory Committee. Through this active participation, the Air Quality Program will proactively identify potential air quality issues and concerns that may be associated with proposed development projects and ongoing land use activities, ensuring that potential air quality impacts are thoroughly evaluated and appropriately addressed during the planning, permitting, and implementation stages of these activities.

Goal 3: Develop Tribal Air Quality Codes and Enforce Federal Regulations

- **Objectives:**

- o Undertake the development and formal adoption of comprehensive Tribal Air Quality Codes. These codes will specifically address the control of air emissions from various sources within the Reservation's jurisdiction. The drafting process will ensure that these tribal regulations accurately reflect the current environmental conditions and specific air quality challenges faced by the Reservation, while also maintaining full consistency with all applicable federal air quality regulations and requirements mandated under the Clean Air Act.

- o Establish a proactive program to continuously monitor and provide informed comments, when deemed necessary and appropriate, on regional, state, and national policy developments and regulatory initiatives related to air quality management. This engagement will ensure that the Tribe's unique air quality concerns and interests are effectively represented in broader air quality policy discussions and decision-making processes that may have direct or indirect implications for the La Jolla Indian Reservation.
- o Ensure that designated Environmental Protection Office (EPO) staff maintain the necessary and current Environmental Protection Agency (EPA) Clean Air Act Tribal Inspector credentials. These credentialed staff will then actively carry out routine and targeted inspections of facilities operating within the Reservation that are registered under the Federal Air Rules for Reservations (FARR). These inspections are crucial for verifying ongoing compliance with all applicable federal air quality regulations and ensuring the effective enforcement of these regulations within the Reservation's boundaries.

Goal 4: Address Climate Change Impacts on Air Quality

- **Objectives:**

- o Develop and implement a comprehensive and adaptive strategy to proactively identify, thoroughly plan for, and effectively mitigate the potential impacts of long-term climate change on air quality within the La Jolla Indian Reservation's airshed. This strategic planning will take into careful consideration a range of climate change-related factors, including anticipated alterations in regional weather patterns, the projected increase in the frequency and intensity of wildfires, and potential changes in the atmospheric formation and transport of various air pollutants.
- o Develop and disseminate accessible and culturally relevant outreach materials and provide diverse educational opportunities for tribal members and all other residents of the Reservation. These initiatives will aim to enhance understanding of climate change adaptation strategies that are specifically relevant to air quality. The outreach will also promote practical actions that individuals, households, and the community as a whole can take to minimize their contribution to air pollution in the context of a changing climate, such as adopting cleaner energy alternatives and reducing reliance on combustion-based activities.
- o Establish collaborative partnerships with other relevant tribal departments and programs (such as natural resources, energy, and emergency

management) to develop and implement a comprehensive climate change adaptation program that effectively integrates air quality considerations into broader tribal planning and natural resource management efforts. This integrated approach will ensure that the potential impacts of climate change on air quality are systematically addressed across all relevant sectors of tribal governance and management.

SOILS AND WATER

Goal 1: Surface Water Protection and Restoration

- **Objectives:**

- o Implement a comprehensive surface water quality monitoring program to systematically determine the frequency and extent to which established tribal Water Quality Standards code requirements are being met across the Reservation's surface waters.
- o Prepare and disseminate a clear and accessible surface water quality monitoring results report to the tribal public on a biennial (every other year) basis to ensure transparency and inform community members about the health of their water resources.
- o Actively collaborate with all other Tribal and Bureau of Indian Affairs (BIA) programs whose activities have the potential to influence surface water quality to integrate management practices that will demonstrably increase the frequency with which water quality monitoring samples meet the stringent requirements of the Tribal Water Quality Standards code.
- o Regularly monitor recreational areas with surface water access for potential sources of contamination (e.g., bacteria, pollutants) and promptly post clear and informative warning notices in areas where contamination levels may pose a risk to public health or safety.
- o Administer and enforce permitting and compliance with all relevant tribal codes related to On-Site Wastewater Treatment and Disposal, Mining Practices Water Quality, Forest Practices, Hydraulic Project Permitting, and Hazardous Substance Control within the Tribe's jurisdiction. This ensures that land and resource management activities that could impact surface water quality are conducted in a manner that prevents violations of the Tribal Water Quality Standards code.
- o Establish a process for providing copies of all pesticide permits or plans for application within the Reservation to the EPA pesticide circuit rider program. This will support improved monitoring of pesticide use, facilitate thorough investigation of any potential violations of the Federal

Insecticide, Fungicide, and Rodenticide Act (FIFRA), and protect water quality from pesticide contamination.

- o Actively contribute to the collaborative development of a comprehensive forest road management plan. This plan will include a robust road maintenance program as well as specific design standards for effective road runoff management and erosion control measures, ultimately enhancing the ability of surface waters to consistently meet the requirements of the Tribal Water Quality Standards code.
- o Require proponents of all proposed development projects exceeding one (1) acre in size to obtain General Construction permits from the Environmental Protection Agency (EPA) to manage stormwater runoff and prevent sediment pollution of surface waters during construction activities.
- o Systematically identify all existing corrals and livestock holding areas where their proximity to surface water bodies negatively impacts the surface waters' ability to meet the Tribal Water Quality Standards code requirements. Proactively work with landowners to relocate these facilities away from sensitive surface water areas and install off-site watering points for livestock where feasible and when funding resources are available.
- o Actively partner with other tribal programs, aggressively seek external funding opportunities, and implement strategic wetland restoration projects throughout the Reservation to enhance water quality, provide critical wildlife habitat, and improve overall watershed function.
- o Implement a comprehensive program to monitor the ecological condition of wetlands and streams utilizing biotic indicators (such as macro-invertebrate communities) and detailed assessments of riparian habitat health. This biological monitoring will provide valuable data to determine overall ecological conditions and assess whether surface waters are meeting the requirements of the Tribal Water Quality Standards code.
- o Utilize advanced technologies such as LIDAR (Light Detection and Ranging) and aerial photography to update and refine water type maps within key watershed areas, providing more accurate spatial information for water resource management and protection efforts.
- o Proactively monitor, prioritize, and take appropriate action to address identified sources of potential pollution that could negatively impact the Reservation's water resources, including both point and non-point sources.
- o Strategically utilize Watershed Restoration funds to actively reduce watershed impacts resulting from the existing Reservation road network. Restoration treatments will include the closure and decommissioning of obsolete and polluting roads, the replacement of poorly designed and

environmentally damaging water crossings (e.g., culverts), and the installation of effective runoff control structures (e.g., water bars, drivable dips) to significantly reduce the delivery of pollutants and sediment to surface waters, thereby improving the ability of Tribal waters to meet established water quality standards.

Goal 2: Groundwater Sustainability

- **Objectives:**

- o Implement a systematic groundwater quality monitoring program to regularly assess the chemical and biological characteristics of the Reservation's aquifers and groundwater supplies, determining the frequency with which the Tribal Water Quality Standards code requirements for groundwater are being met.
- o Prepare and disseminate a clear and accessible groundwater quality monitoring results report to the tribal public on a biennial (every other year) basis to ensure transparency and inform community members about the health of their groundwater resources.
- o Thoroughly review proposals and permit applications for various land use and development projects to effectively maintain contamination source restrictions within designated wellhead protection zones, thereby safeguarding the long-term ability of groundwater resources to meet the stringent requirements of the Tribal Water Quality Standards code.
- o Strictly administer permits and ensure ongoing compliance with the Tribal On-site Wastewater Treatment and Disposal code to maintain crucial regulatory restrictions on septic systems, including limitations on system types, ensuring proper operational condition, and enforcing minimum distance requirements from water wells to prevent groundwater contamination.
- o Actively collaborate with the Environmental Protection Agency (EPA) to ensure that all federal regulations pertaining to underground storage tanks (USTs) and aboveground storage tanks (ASTs) are rigorously observed and enforced within the boundaries of the Reservation to prevent potential groundwater contamination from fuel and other stored substances.
- o Administer and enforce compliance with the Tribal Hazardous Substance Control code, requiring adherence to specified cleanup standards for contamination in groundwater, soil, and sediment. This is essential to protect the long-term quality of groundwater resources and ensure their ability to meet established tribal water quality standards.

- o Implement a program to systematically monitor groundwater levels using both field measurements and analytical methods. If necessary, based on monitoring data, implement regulations on groundwater withdrawals (such as pumping rates and volumes) through the administration of permitting and compliance with the Tribal Water Resources Use and Permitting code requirements to ensure adequate and sustainable groundwater supplies for future beneficial water uses by the Tribe and its members.

Goal 3: Watershed Health

- **Objectives:**

- o Develop comprehensive maps identifying known locations of unstable slopes (e.g., landslides, areas prone to mass wasting) based on historical records, high-resolution LIDAR imagery, the Natural Resources Conservation Service (NRCS) Soil Survey data, and other relevant available technologies. This information will be crucial for land use planning and hazard mitigation.
- o Conduct thorough assessments of riparian zone conditions at all established stream water quality monitoring locations. Evaluate the effectiveness of existing riparian management zones and prioritize areas for targeted project planning and restoration efforts based on the assessment results to improve stream health and water quality.
- o Collaborate closely with the Tribal Land Operations Department and the Fish & Wildlife Department to collaboratively develop and recommend ecologically sound best management practices (BMPs) for livestock grazing activities within riparian areas to minimize negative impacts on stream banks, water quality, and riparian vegetation.
- o Strategically utilize Watershed Restoration funds to actively reduce watershed impacts resulting from the existing Reservation road network. Restoration treatments will include the closure and decommissioning of obsolete and environmentally damaging roads, the replacement of poorly designed and undersized water crossings (e.g., culverts), and the installation of effective runoff control structures (e.g., water bars, drivable dips) to restore more natural flow patterns and improve the overall ability of Tribal waters to consistently meet established Water Quality Standards code requirements.

Goal 4: Water Use Management

- **Objectives:**

- o Actively collaborate with other relevant tribal departments and federal programs to develop and promote both current and future agricultural projects and the necessary water delivery systems (e.g., irrigation infrastructure) required for efficient and sustainable irrigation practices within the Reservation and on all other Tribal lands, ensuring the protection of tribal water rights.

Goal 5: Climate Change Adaptation

- **Objectives:**

- o Conduct a comprehensive annual review of regional climate change forecasts, scientific analyses, and projected water resource trends to proactively identify prudent changes in watershed management strategies that should be implemented to adapt to changing climatic conditions.
- o Based on the annual climate change review, recommend necessary revisions to relevant La Jolla Indian Tribal Codes administered by the Environmental Protection Office to enhance the resilience of homes and communities to climate-driven threats such as increased flooding risks, more intense rain-on-snow events, and potential changes in stream channel migration patterns.

The watersheds of the La Jolla Indian Reservation are the fundamental hydrological units that collect, store, and release water, shaping the landscape and supporting a rich diversity of ecological, cultural, and economic values. Effective watershed management is crucial for ensuring the long-term health and sustainability of the Reservation's water resources. To understand the current state of these vital systems and to guide restoration efforts, the Environmental Protection Office (EPO) has conducted various assessments, including comprehensive water quality evaluations, detailed road maintenance inventories to identify erosion sources, thorough stream and riparian area surveys to assess ecological conditions, and general field observations to identify key areas of concern. These assessments have provided a critical foundation for identifying and prioritizing surface water restoration projects.

These restoration projects encompass a range of activities designed to address specific issues impacting watershed health and water quality. Examples of these projects include:

- **Forest Road and Road Stream Crossing Improvements:** Upgrading or redesigning forest roads and their crossings over streams to minimize erosion, reduce sediment delivery to waterways, and improve fish passage. This may

involve installing proper drainage structures, stabilizing road surfaces, and replacing undersized or poorly designed culverts.

- **Revegetation of Hillslopes, Streambanks, and Shorelines:** Planting native vegetation on unstable hillslopes, eroding streambanks, and lake or wetland shorelines to stabilize soils, reduce erosion and sedimentation, enhance riparian habitat, and improve water quality through natural filtration.
- **Erosion Control Measures:** Implementing various techniques to prevent and control soil erosion from different land use activities, including the use of sediment traps, check dams, and other structural and non-structural methods.
- **Stream Head-cut Stabilization:** Addressing and stabilizing actively eroding stream head-cuts (steep drops in the stream bed) to prevent further channel incision, sediment mobilization, and damage to upstream habitats.
- **Minor Channel Geometry Modifications:** Carefully implementing small-scale alterations to stream channel shape and form to improve flow patterns, enhance habitat complexity, and promote natural sediment transport processes, while avoiding large-scale channelization.
- **Streambed Armoring:** Strategically placing natural materials like rocks and logs within the streambed to stabilize eroding areas, protect infrastructure (e.g., bridge supports), and enhance aquatic habitat by creating riffles, pools, and cover.
- **Riparian Fencing:** Installing fences along stream and wetland corridors to exclude livestock and control their access, allowing riparian vegetation to recover and provide essential shade, bank stability, and habitat benefits.
- **Animal Watering Site Development:** Creating designated off-stream watering sites for livestock to reduce grazing pressure and direct deposition of waste into streams and riparian areas, thereby improving water quality and riparian health.
- **Limitations on Impacting Activities:** Implementing restrictions and best management practices on various land use activities such as forest harvesting, road construction, and livestock grazing to minimize their potential negative impacts on watershed health and water quality.

Recognizing the interconnectedness of the Reservation's ecosystems and the broader regional context, the EPO collaborates closely with other entities involved in aquatic resource monitoring. The Tribal Fish & Wildlife Department conducts extensive monitoring of aquatic habitats both within the Reservation and throughout the larger San Luis Rey River watershed. Furthermore, federal and state agencies, as well as the Tribe itself, actively monitor the water quality of boundary waters such as the San Luis Rey River and its major tributaries. These collaborative monitoring efforts are crucial for gaining a comprehensive understanding of watershed conditions, identifying potential threats, and ensuring that data and findings are effectively coordinated and shared among all relevant agencies to support informed management decisions.

MONITORING FOR FERTILIZERS AND ILLEGAL PESTICIDE USE IN ILLEGAL GROWS

The Tribe is concerned about the potential for illegal cannabis cultivation on or near the Reservation to negatively impact water quality through the use of fertilizers and illegal pesticides. To address this concern, the Tribe's strategy includes:

- **Water Quality Testing for Fertilizer Indicators:** Incorporating testing for key fertilizer indicators (e.g., nitrates, phosphates) in the Tribe's routine surface and groundwater quality monitoring programs. Elevated levels of these nutrients, particularly in unexpected locations, can be an indicator of potential fertilizer runoff from agricultural activities, including illegal grows.
- **Collaboration with Law Enforcement:** Working closely with tribal and federal law enforcement agencies to identify and address illegal cannabis cultivation activities on or near the Reservation. This includes sharing information and coordinating enforcement efforts.
- **Targeted Pesticide Testing:** If illegal grow sites are suspected or identified in areas that could impact water resources, the Tribe will conduct targeted testing for a broad range of illegal pesticides that may be used in such operations. This testing will help determine the extent of potential contamination and inform appropriate remediation actions.
- **Education and Outreach:** Educating tribal members about the potential environmental risks associated with illegal cannabis cultivation, including water contamination from fertilizers and pesticides.
- **Coordination with Regulatory Agencies:** Collaborating with relevant state and federal regulatory agencies (e.g., EPA, State Water Resources Control Board) that have jurisdiction over pesticide use and water quality to share information and coordinate monitoring and enforcement efforts related to illegal pesticide use.

By actively pursuing these strategies, the La Jolla Band of Luiseño Indians, through SLRIWA and its own environmental protection efforts, is committed to safeguarding its precious water rights and ensuring the long-term health and sustainability of its water resources for the benefit of present and future generations. The Tribe recognizes the interconnectedness of water quantity and quality and will continue to address threats such as harmful algal blooms and potential contamination from illegal activities to protect this vital resource.

WATERSHED RESTORATION

The La Jolla Indian Reservation's Watershed Restoration Plan outlines specific goals and objectives aimed at improving the overall health and functionality of the Reservation's watersheds and enhancing the water quality of its rivers and streams. This plan focuses on a proactive approach that includes upgrading or eliminating road infrastructure that contributes to water and aquatic resource degradation, developing robust road construction and maintenance standards designed to prevent future water resource impairment, and strengthening oversight of all phases of road planning, construction, ongoing maintenance, and use.

Watershed Restoration Goals:

- **Improve the Ecological Function of the Watersheds:** To enhance the natural processes within the watersheds, including water infiltration, storage, and release; nutrient cycling; sediment transport; and the provision of diverse and high-quality habitats for aquatic and terrestrial species.
- **Enhance Water Quality, Riparian and Aquatic Habitat, and Restore Natural Stream Flows:** To actively work towards improving the chemical, physical, and biological integrity of the Reservation's streams and rivers, restore the health and functionality of vital riparian ecosystems, enhance the quality and complexity of aquatic habitats, and promote flow regimes that more closely mimic natural conditions.
- **Develop a Watershed-Protective Forest Access Road Management Plan:** To create and implement a comprehensive management plan specifically for forest access roads that prioritizes the protection of watershed resources while also ensuring safe and efficient access for resource management activities and tribal member use. This plan will address road design, construction, maintenance, and decommissioning strategies.
- **Engage Tribal Businesses and Youth in Restoration Efforts:** To actively involve tribal-owned businesses in the implementation of watershed restoration projects, fostering economic development within the Tribe, and to provide valuable hands-on learning opportunities for tribal youth in environmental stewardship and scientific data collection.

The primary focus of watershed restoration efforts on the La Jolla Indian Reservation centers on the extensive network of forest access roads, particularly those exhibiting significant erosion problems that directly impact nearby streams and water bodies. Roads identified as having inadequate drainage will undergo improvements through the installation of appropriate drainage structures such as culverts, water bars, and ditch relief culverts. The restoration plan specifically targets roads located within sensitive streamside riparian zones for potential relocation or decommissioning to minimize their

2697 ecological footprint. Furthermore, stream crossings and culverts that are currently
2698 eroding, causing sedimentation, or are inadequately constructed and impeding fish
2699 passage will be prioritized for replacement with properly designed structures or, where
2700 feasible, complete removal to restore natural stream flow and connectivity.

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WATER RIGHTS STATUS AND STRATEGY

The La Jolla Band of Luiseño Indians possesses federally reserved water rights stemming from the establishment of its Reservation. These rights are crucial for the Tribe's self-determination, cultural survival, economic development, and the health of its members and natural resources. The Tribe actively participates in the protection and management of these rights through its membership in the **San Luis Rey Indian Water Authority (SLRIWA)**.

THE SAN LUIS REY INDIAN WATER AUTHORITY (SLRIWA)

SLRIWA is a joint powers authority established to represent the collective water rights interests of the five federally recognized tribes whose reservations are located within the San Luis Rey River watershed: the La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Luiseño Indians. SLRIWA serves as a unified voice for these tribes in negotiations, legal proceedings, and policy discussions related to water resources in the watershed. The Authority's primary objectives include:

- **Protecting and Enhancing Tribal Water Rights:** Actively working to safeguard the tribes' federally reserved water rights and pursuing opportunities to quantify and enhance these rights to meet present and future needs.
- **Promoting Tribal Sovereignty:** Ensuring that tribal sovereignty and self-governance are respected in all water management decisions affecting the Reservations.
- **Facilitating Sustainable Water Management:** Advocating for and implementing sustainable water management practices that protect the ecological health of the San Luis Rey River watershed and ensure long-term water security for the tribes.
- **Securing Funding and Resources:** Seeking funding and technical assistance to support tribal water resource management initiatives, infrastructure development, and water quality protection efforts.

RECOGNIZED WATER RIGHTS

The federally reserved water rights of the La Jolla Band, along with those of the other SLRIWA member tribes, are complex and have been the subject of significant legal and administrative processes. While the specific quantification of these rights can be intricate and may vary depending on the specific legal context (e.g., settlement agreements, court decrees), the fundamental principle is that these rights are reserved as of the date the Reservations were established and are intended to fulfill the present and future needs of the tribes and their lands. These needs typically include, but are not

2737 limited to, domestic use, agriculture, cultural and religious practices, and the
2738 maintenance of healthy ecosystems.

2739 ONGOING LEGAL AND ADMINISTRATIVE PROCESSES

2740 The San Luis Rey River watershed has a long history of complex water rights issues,
2741 and ongoing legal and administrative processes continue to shape water management
2742 in the region. These processes may include:

- 2743 • **Implementation of Settlement Agreements:** Monitoring and ensuring the full
2744 implementation of any existing settlement agreements that define the water rights
2745 of the La Jolla Band and other tribes within the watershed. This involves active
2746 participation in any collaborative efforts or committees established to oversee
2747 these agreements.
- 2748 • **Negotiations and Potential Litigation:** Engaging in ongoing negotiations with
2749 federal, state, and local agencies, as well as other water users in the watershed,
2750 to protect and potentially expand tribal water rights. This may also involve the
2751 possibility of future litigation if negotiations fail to adequately address tribal
2752 needs.
- 2753 • **Federal and State Policy Advocacy:** Actively advocating for federal and state
2754 policies that recognize and protect tribal water rights and support tribal self-
2755 determination in water resource management. This includes engaging with
2756 legislative bodies and regulatory agencies.
- 2757 • **Participation in Water Management Planning:** Ensuring the Tribe's
2758 representation and active participation in regional water management planning
2759 processes, such as Integrated Regional Water Management (IRWM) plans, to
2760 ensure that tribal water rights and interests are fully considered.
- 2761 • **Administrative Appeals and Challenges:** Pursuing administrative appeals or
2762 legal challenges to actions by federal, state, or local agencies that may
2763 negatively impact the Tribe's water rights or water resources.

2764 TRIBE'S OVERALL STRATEGY FOR PROTECTING AND EXERCISING 2765 WATER RIGHTS

2766 The La Jolla Band, in collaboration with SLRIWA, employs a multi-faceted strategy to
2767 protect and exercise its water rights for current and future needs. This strategy includes:

- 2768 • **Active Participation in SLRIWA:** Maintaining strong representation and actively
2769 participating in the governance and activities of SLRIWA to ensure a unified and
2770 effective voice for tribal water rights in the San Luis Rey River watershed.

- **Legal and Technical Expertise:** Investing in legal and technical expertise to understand, quantify, and protect the Tribe's water rights. This includes hydrologic studies, legal counsel, and negotiation support.
- **Government-to-Government Consultation:** Engaging in robust government-to-government consultation with federal and state agencies on all matters affecting the Tribe's water rights and resources.
- **Sustainable Water Resource Management:** Implementing sustainable water management practices on the Reservation to ensure the efficient and beneficial use of its water resources, including water conservation measures and the development of water infrastructure.
- **Water Quality Protection:** Recognizing the intrinsic link between water quantity and water quality, the Tribe actively works to protect its water resources from pollution, including addressing issues such as harmful algal blooms and potential contamination from illegal activities.
- **Seeking Funding and Partnerships:** Proactively seeking funding opportunities and developing partnerships with federal, state, and private entities to support tribal water resource management, infrastructure development, and water quality initiatives.
- **Public Awareness and Education:** Educating tribal members and the broader community about the importance of tribal water rights and the need for responsible water stewardship.

ADDRESSING HARMFUL ALGAL BLOOMS IN LAKE HENSHAW AND THE SAN LUIS REY RIVER

The Tribe recognizes the serious threat posed by harmful algal blooms (HABs) in Lake Henshaw, which can contaminate the San Luis Rey River, a vital water source for the Tribe and downstream users. The Tribe's strategy to address this issue includes:

- **Collaboration with SLRIWA and Other Stakeholders:** Working collaboratively with SLRIWA, the City of Escondido (which owns and operates Lake Henshaw), and other relevant agencies (e.g., Regional Water Quality Control Board) to understand the causes and extent of HABs in Lake Henshaw.
- **Monitoring and Assessment:** Supporting and participating in comprehensive monitoring and assessment efforts of Lake Henshaw and the San Luis Rey River to track the development and movement of HABs and identify contributing factors, such as nutrient loading.
- **Source Identification and Control:** Working with stakeholders to identify and control sources of nutrient pollution (e.g., fertilizers, wastewater discharge, agricultural runoff) that may be contributing to HAB formation in Lake Henshaw.

This may involve advocating for stricter regulations and best management practices in the upstream watershed.

- **Early Warning Systems:** Supporting the development and implementation of early warning systems to detect and predict HAB events in Lake Henshaw and the San Luis Rey River, allowing for timely public notification and preventative measures.
- **Mitigation Strategies:** Collaborating on the development and implementation of effective mitigation strategies to reduce the frequency and severity of HABs in Lake Henshaw. This may include techniques such as algaecides (used cautiously and with environmental considerations), aeration, or nutrient removal technologies.
- **Water Quality Testing:** Regularly testing water quality in the San Luis Rey River downstream of Lake Henshaw to monitor for the presence of algal toxins and ensure the safety of the Tribe's water supply and recreational uses.

LAND USE IMPACTS ON WATER RESOURCES

Diverse land management practices across the La Jolla Indian Reservation have historically and continue to influence both the quality and the availability of its vital water resources. These practices encompass forestry operations, rangeland management, and the development of residential and commercial areas. A primary concern impacting the Reservation's aquatic ecosystems is non-point source pollution. This type of pollution originates from diffuse sources across the landscape, rather than a single identifiable discharge point, and its cumulative effects can significantly degrade water quality, limit beneficial water uses, and harm water-dependent habitats.

A major contributor to non-point source pollution on the Reservation is the extensive network of unpaved roads. Often characterized by inadequate initial construction and insufficient ongoing maintenance, these roads are highly susceptible to erosion. Rainfall and runoff events mobilize significant amounts of sediment from road surfaces and associated disturbed areas, leading to substantial sediment loading into adjacent streams and water bodies. This excess sediment increases turbidity, reduces light penetration essential for aquatic plant life, can smother sensitive benthic organisms, and can act as a carrier for other pollutants. The comprehensive road inventory conducted by the Environmental Protection Office (EPO) is therefore a critical tool. This inventory allows for the strategic allocation of limited financial resources to prioritize and implement high-impact restoration projects aimed at mitigating road-related erosion and improving overall water quality within the Reservation's watersheds.

Surface water conditions within the Reservation are influenced by a complex interplay of various factors. Bacterial contamination poses a significant threat to both water quality and public health. Potential sources of these bacteria on the Reservation are varied and include the introduction of livestock waste into waterways through direct access or runoff, the leaching of inadequately treated or poorly maintained septic systems, and the deposition of fecal matter from native wildlife populations. The EPO's continuous analysis of stream water quality data, coupled with historical records of stream conditions, provides valuable insights into the prevailing water quality challenges. These analyses indicate that habitat quality index ratings for a representative selection of streams across the Reservation generally fall within the poor to moderate range when considering parameters such as water temperature and dissolved oxygen levels, which are critical for aquatic life. Furthermore, flow regimes and nutrient (nitrate) concentrations in these streams are often rated as fair to moderate, highlighting the ongoing need for targeted restoration and proactive management strategies to enhance these essential water quality parameters and support healthy aquatic ecosystems.

Watersheds: The Foundation of Water and Soil Health

The natural, unimpeded function of the La Jolla Indian Reservation's watersheds is fundamental to ensuring a reliable supply of clean water for all its needs. These watersheds act as integrated systems, capturing precipitation, regulating stream flows through the natural process of water cycling within the soil profile, providing essential habitats for a diverse array of fish and wildlife species, and supporting resources of significant cultural value to the Tribe. Within these watersheds, the vital riparian zones that border stream courses and the presence of healthy wetland ecosystems play a particularly critical supportive role. The native vegetation within riparian areas provides crucial shade that helps to regulate water temperatures, contributes essential organic matter (such as leaf litter) that forms the base of the aquatic food web, and its extensive root systems stabilize stream banks, effectively preventing erosion. Additionally, these riparian soils, with their high water-holding capacity, slow down surface runoff, allowing for greater infiltration and helping to dissipate the energy of flood flows. Riparian areas also contribute essential woody debris to streams, which creates complex and valuable habitat structure for a wide range of aquatic organisms.

The soils of the Reservation are equally critical, forming the foundation for terrestrial ecosystems and playing an indispensable role in supporting plant growth. Soils provide a stable physical medium for root development and serve as a reservoir of essential inorganic mineral nutrients that plants require for healthy growth, including macronutrients such as nitrogen, phosphorus, and potassium, as well as a suite of micronutrients like iron, manganese, and zinc. Beyond nutrient provision, soils also act

as a natural insulator, moderating temperature fluctuations in the ground and protecting deeper plant roots from the extremes of hot and cold temperatures experienced at the surface. Furthermore, soils are a primary factor controlling the movement of water throughout much of the hydrologic cycle, significantly influencing infiltration rates (the rate at which water enters the soil), subsurface flow (the movement of water beneath the surface), and the vital process of groundwater recharge. The inherent water-holding capacity of the Reservation's diverse soil types is particularly essential for the long-term survival and overall productivity of native plant communities, especially during extended periods of low precipitation and drought conditions.

Water Resource Conditions: A Current Assessment

Historically, the riparian and in-stream environments within the La Jolla Indian Reservation exhibited a state of relative stability, providing substantial sustenance, cultural significance, and spiritual value to the La Jolla Band of Luiseño Indians. These healthy aquatic ecosystems were supported by relatively balanced water and nutrient cycles, fostering abundant and productive habitats for a wide array of plant and animal life, including diverse fish species, mammals, birds, and insects. The Environmental Protection Office (EPO) is entrusted with the crucial responsibility of continuously monitoring the water quality of both surface waters (including streams, rivers, and wetlands) and the underlying groundwater resources across the entirety of the Reservation. Currently, the EPO maintains a strategically designed network of stream monitoring sites located throughout the Reservation's watersheds. At these sites, field measurements of key water quality parameters are regularly collected along the San Luis Rey River and its various tributaries. The careful selection of these water quality sampling locations was guided by a thorough consideration of tribal interests and traditional use areas, site accessibility for consistent monitoring, representative stream flow characteristics, ecological significance of the water bodies, and the potential influence of both identifiable point sources and more diffuse non-point sources of pollution.

Current data derived from this ongoing monitoring effort indicates that while the overall water quality within the exterior boundaries of the Reservation does not currently meet the formal regulatory definition of being "impaired" under federal guidelines, there are nonetheless existing concerns that necessitate further thorough investigation and the implementation of proactive and targeted management actions. Historical water quality records, coupled with the results of recent analytical testing, reveal that segments of many of the flowing water bodies on the Reservation frequently fail to consistently meet the established water quality standards set forth by both the U.S. Environmental Protection Agency (EPA) and the Tribe itself. These exceedances are particularly noted

for critical parameters that directly impact aquatic life and human health, including elevated water temperatures, depressed levels of dissolved oxygen, elevated counts of indicator bacteria (specifically fecal coliform), and increased levels of turbidity, which reduces water clarity. Recent comprehensive assessment reports further corroborate these findings, indicating that a significant proportion of monitored streams, ranging from over a quarter to as high as forty percent, experience documented exceedances of these standard water quality criteria or exhibit levels of these parameters that raise ecological concerns.

Violations of established water quality standards are most frequently observed during the warmer summer months. During this period, elevated ambient air temperatures often lead to a corresponding increase in water temperatures, which can exceed the critical thresholds established to protect sensitive aquatic organisms. These warmer water temperatures also contribute to a reduction in the amount of dissolved oxygen that the water can hold, often falling below the minimum levels required to support healthy aquatic life, potentially leading to stress or mortality in fish and other aquatic species. Additionally, fecal bacteria counts in many watersheds tend to become more concentrated during periods of low stream flow, increasing the potential risk to human health associated with recreational water use. Elevated turbidity values, which indicate reduced water clarity due to the presence of suspended sediment particles, are typically highest during the spring months. This coincides with periods of increased surface runoff and erosion across the landscape, particularly in those watersheds where land use activities occurring adjacent to stream channels contribute to the mobilization and transport of sediment into the waterways.

Assessments of the Reservation's groundwater quality generally indicate that it remains suitable for both domestic and industrial purposes for the majority of the Reservation. However, it is important to note that some localized water quality issues are inherent to the specific geologic materials that constitute the underlying aquifer in certain areas. The majority of identified bacterial contamination problems in groundwater sources have been directly linked to instances of faulty or damaged water well construction, which creates pathways for surface contamination, such as runoff containing bacteria, to directly enter the well and contaminate the groundwater supply. Other instances of bacterial contamination and elevated nutrient levels (such as nitrate and ammonia) in groundwater are often attributed to the presence of improperly functioning or poorly located septic system drain fields, agricultural practices involving the application of fertilizers, and areas with concentrated populations of livestock where animal waste can leach into the subsurface. Shallow water wells and those that are improperly placed or constructed are identified as being particularly vulnerable to the negative impacts of these various land-based activities on overall groundwater quality.

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TRIBAL HISTORIC PRESERVATION PROGRAM:**Safeguarding Cultural Heritage**

The Tribal Historic Preservation Program (THPP) of the La Jolla Band of Luiseño Indians was formally established in 2023 and is currently in its developmental phase. This crucial program is dedicated to the systematic recordation, comprehensive protection, and responsible management of archaeological sites and Traditional Cultural Properties (TCPs) located both within the boundaries of the Reservation and throughout the Tribe's broader ancestral territories.

The need for such a program is underscored by the historical impacts of past natural resource projects, particularly timber harvesting activities that occurred prior to the enactment and rigorous enforcement of cultural resource protection laws. Consequently, numerous cultural sites of significant importance to the Tribe were unfortunately destroyed or significantly disturbed by these earlier activities. Furthermore, natural resource projects have also affected traditional gathering and hunting areas, in some instances leading to the destruction of plant and animal habitats specifically identified in the Tribe's rich body of ethnographic records.

Today, the Tribal Historic Preservation Program plays a vital and proactive role in ensuring that all project proponents, whether tribal, federal, state, or private, adhere to established cultural resource protection laws and regulations. To further this goal, the THPP actively provides essential training and educational resources for tribal and federal natural resource personnel. This training focuses on increasing awareness and understanding of relevant cultural resource laws, as well as equipping personnel with the necessary skills to accurately identify and appropriately manage cultural sites encountered during project planning and implementation.

Cultural Resource Management Goals & Objectives

The overarching mission of the Tribal Historic Preservation Program is to rigorously protect the Tribe's invaluable cultural resources, firmly uphold tribal rights, and assert tribal sovereignty through the consistent application of professional cultural resource management practices. All activities undertaken by the THPP are guided by a commitment to full compliance with applicable federal, state, and tribal policies, regulations, and codes related to cultural resource preservation. The fundamental purpose of the Tribal Historic Preservation Program is to diligently protect and preserve significant cultural places and resources located on Reservation lands and within the Tribe's traditional territories. This proactive preservation ensures that tribal members have continued access to these resources for the perpetuation of traditional cultural

practices and to foster a deeper understanding of the rich history and vibrant culture of the La Jolla Indian Reservation for both current and future generations. The THPP is also committed to working cooperatively and collaboratively with other tribal programs, as well as federal, state, and local agencies, to ensure that the Tribe's history is not forgotten and that its cultural heritage is appropriately recognized and respected in all relevant contexts.

Goal 1: Maintain a Strong and Professional Tribal Cultural Resources Program

- **Objectives:**

- o Establish and maintain a qualified and effective staff or a well-established network of professional experts, including archaeologists, anthropologists, ethnobotanists, linguists, and other cultural resource authorities with specific expertise relevant to the Tribe's cultural heritage.
- o Conduct systematic interviews and documentation of oral histories shared by tribal elders and knowledgeable traditional practitioners. These interviews will focus on recording traditional ecological knowledge, the significance of specific places, and the rich tapestry of tribal history, ensuring the preservation of this invaluable cultural information.
- o Develop and maintain secure and well-organized databases for the long-term storage and management of recorded oral histories, archival historic photographs, detailed records of archaeological sites, and comprehensive documentation of Traditional Cultural Properties (TCPs) identified within the Tribe's territory.

Goal 2: Assist Agencies in Meeting Cultural Resource Management Laws

- **Objectives:**

- o The Tribal Historic Preservation Program will continue its proactive coordination with all other natural resource programs within the Tribe during the project planning stages and through the Tribal Project Proposal Process (3P). This early and consistent engagement will ensure the thorough consideration and effective protection of cultural resources on the Reservation prior to any ground-disturbing activities.
- o The Tribal Historic Preservation Program will actively coordinate and consult with external agencies and entities, including federal, state, and local government bodies, as well as private developers, to ensure the comprehensive protection of cultural resources located within the Tribe's traditional territories and to guarantee full compliance with all applicable cultural resource management laws, regulations, and consultation requirements.

- o The Tribal Historic Preservation Program will, when appropriate and beneficial to the Tribe, enter into contracts or agreements with external agencies to perform necessary cultural resource surveys, conduct thorough assessments of potential impacts to cultural resources, and develop and implement appropriate mitigation measures to address any adverse effects identified during these processes.

Goal 3: Protect Historic, Precontact Sites, and Traditional Cultural Properties

- **Objectives:**

- o Engage in close coordination with the Environmental Protection Office (EPO) and the Fish and Wildlife Department to develop and implement integrated strategies for the protection and enhancement of the Tribe's traditional gathering, hunting, fishing, and spiritual locations. This collaborative approach will ensure that management activities in these sensitive areas are culturally appropriate and environmentally sound.
- o Work in partnership with the Range management program to ensure the ongoing maintenance and integrity of fencing and other protective measures around tribal cemeteries and other culturally sensitive areas. This will help to prevent inadvertent damage and unauthorized access to these important sites.
- o Collaborate closely with the Forestry and Fire Management programs to develop and implement proactive fuel reduction projects in and around traditional cultural sites and other culturally significant locations. This vital work will aim to reduce the risk of catastrophic wildfires that could potentially damage or destroy these irreplaceable cultural resources.
- o Maintain strict confidentiality regarding the precise locations of sensitive cultural sites, including archaeological sites and TCPs. This measure is essential to protect these sites from the threats of looting, vandalism, and unauthorized disturbance.

Goal 4: Educate the Public on the Importance of Protecting Cultural Sites

- **Objectives:**

- o Actively organize and participate in public scoping meetings related to proposed projects that may affect cultural resources. Additionally, THPP staff will present information and engage with the broader professional community at relevant conferences and workshops to raise awareness about the Tribe's cultural resources and the importance of their protection.
- o Develop and deliver comprehensive cultural resource awareness training programs specifically designed for personnel within tribal, federal, state,

and local agencies, as well as for project managers involved in activities that could potentially impact cultural resources. This training will emphasize legal obligations, proper identification techniques, and best management practices for cultural resource protection.

- o Develop and produce a diverse range of high-quality educational materials for dissemination to the general public. These materials will cover the Tribe's rich history, cultural heritage, and the critical importance of cultural resource preservation, utilizing both traditional print media (e.g., brochures, pamphlets) and contemporary digital platforms (e.g., website content, social media campaigns, interactive presentations).

Goal 5: Educate Youth for Cultural Resource Management and Development

- **Objectives:**

- o Actively establish and maintain a youth internship program within the Tribal Historic Preservation Program. This program will provide valuable hands-on experience in cultural resource management for young tribal members, fostering their interest in the field and contributing to their future economic and professional development.
- o Proactively encourage and support educational opportunities for young tribal members in fields related to cultural resource management, such as archaeology, anthropology, history, and museum studies. This may include providing information about scholarships, internships, and relevant academic programs.
- o Participate actively in outreach programs at local schools and youth organizations to raise awareness among young people about the significance of cultural resources, the principles of cultural resource management, and potential career pathways within this field.
- o **Traditional Cultural Plant Community Restoration Project:** Develop and implement a dedicated project focused on the protection and restoration of the Tribe's traditional cultural plants and their associated plant communities. The primary goal of this project is to ensure the continued abundance of essential foods, medicines, and plant materials traditionally used in gathering, fishing, hunting, weaving, ceremonial practices, and the everyday activities of tribal members.

Goal 6: Utilize TEK for Protection and Restoration of Cultural Plants

- **Objectives:**

- o Actively involve tribal members with traditional ecological knowledge (TEK) in all on-the-ground efforts related to the protection and restoration

of traditional cultural plant resources. This direct involvement will serve to inform tribal members about the specific protection and restoration strategies being implemented and will ensure that these efforts are culturally appropriate and effective.

- o Develop and implement training programs specifically designed to equip tribal members with the necessary skills to carry out cultural plant resource fieldwork, including inventory techniques, ecological data collection, and data analysis. This will build local capacity for long-term monitoring and management.
- o Ensure consistent and proactive coordination with other natural resource programs within the Tribe during the project planning process and through the Tribal Project Proposal Process (3P). This collaboration will specifically focus on ensuring the thorough consideration and effective protection of traditional cultural plant communities in all relevant land management decisions and project activities.

Goal 7: Collect and Analyze Ecological Baseline Data for Cultural Plants

• Objectives:

- o Conduct systematic and rigorous plant community field research across the Reservation and within traditional territories. This research will include detailed mapping of plant community distributions and associated ecological analysis to establish a comprehensive baseline understanding of the current status of traditional cultural plant resources.
- o Utilize the data and findings from the ecological research and inventory efforts to develop and implement long-term monitoring programs for key traditional cultural plant species and their associated plant communities. This monitoring will assess their overall health, vigor, and identify specific restoration needs.
- o Actively work to reduce the potential for damage to traditional cultural plants and their associated communities by effectively integrating appropriate protection and restoration techniques into the broader natural resource management practices implemented across the Reservation. This will ensure that the long-term health and availability of these culturally significant resources are considered in all land management decisions.

RECREATIONAL ENTERPRISES: BALANCING OPPORTUNITY AND PRESERVATION

The La Jolla Indian Tribe possesses significant potential to generate revenue and stimulate economic growth through the expansion of carefully planned recreational enterprises on the La Jolla Indian Reservation. The Reservation's unique natural landscapes and rich cultural heritage offer compelling attractions for both tribal members and visitors. However, the Tribe recognizes the paramount importance of safeguarding its deeply held cultural values, traditions, and way of life. Therefore, any consideration of expanding recreational opportunities is approached with the utmost caution, involving thorough and meticulous examination to ensure cultural integrity and environmental sustainability are prioritized.

The Recreational Enterprises Program has currently identified and categorized existing recreational activities, primarily concentrated in the southeastern area of the Reservation. The Tribe's commitment to providing recreational opportunities spans over five decades, with the establishment of the initial Recreation Program more than 50 years ago. Since its inception, this program has experienced substantial growth and now employs a dedicated staff of 15 individuals. The program's responsibilities include the comprehensive maintenance and upkeep of designated park and recreation areas, as well as the management and collection of parking fees associated with these facilities.

COMMUNITY CONCERNS

(To be determined. This section will be developed based on input gathered from tribal members regarding their perspectives, concerns, and desires related to recreational development on the Reservation. It will address aspects such as potential impacts on cultural sites, traditional practices, environmental sensitivities, and the overall quality of life within the community.)

RECREATIONAL ENTERPRISES MANAGEMENT PHILOSOPHY

The Recreational Enterprises Program operates under the guiding principle that individuals should be provided with meaningful opportunities to engage with and learn about the fascinating aspects of the natural and cultural environment through outdoor recreation and active participation. To effectively achieve this dual objective, recreation professionals within the program recognize a critical dual responsibility: the rigorous protection and conservation of the Reservation's natural and cultural resources, alongside the creation of enjoyable, enriching, and safe recreational experiences for all

users. Successful management of recreational areas for multiple uses necessitates effective resource coordination and collaboration across various tribal departments and external agencies.

Thoughtful planning and design can integrate ecological considerations with recreational amenities. For instance, the strategic placement of wildlife watering holes and the creation of woodland edge habitats, which are known to benefit a variety of wildlife species, can simultaneously enhance the aesthetic appeal of roads and trails utilized by recreational visitors. Similarly, the establishment of cover plantings consisting of native shrubs and trees, intended to provide shelter and food for deer and birds, can also serve as natural screening to effectively separate potentially conflicting recreational zones, minimizing user conflicts and protecting sensitive areas. Existing natural salt licks, which are important for wildlife nutrition, can also be managed to serve as designated observation points for individuals interested in wildlife viewing, providing a unique and educational recreational opportunity.

Crucially, the Recreational Enterprises Program places a strong emphasis on the preservation and protection of sensitive cultural and traditional areas within the Reservation. These areas hold deep historical, spiritual, and cultural significance for the Tribe and are treated with the utmost respect and care in all recreational planning and management activities.

The Recreational Enterprises Program is responsible for the comprehensive maintenance and management of Reservation campgrounds, ensuring the provision of safe, clean, and aesthetically pleasing facilities for tribal members, their families, invited guests, and permitted visitors. The program actively works to update and improve these facilities to better meet the evolving cultural and recreational needs of the Tribe, as well as to ensure accessibility for elderly individuals and those with disabilities, promoting inclusivity in recreational opportunities.

Tribal codes and regulations are strictly enforced within the interior boundaries of the Reservation. Tribal Law Enforcement and security officers conduct regular patrols to ensure the safety and security of all recreational activities and participants within the La Jolla Indian Reservation. The Recreational Enterprises Program is currently in the process of drafting specific ordinances to strengthen the enforcement of existing Tribal codes related to camping activities and natural resource protection. These ordinances will apply to all individuals, both tribal and non-tribal, who engage in recreational or related activities on the Reservation and in other traditional use areas, ensuring responsible and respectful utilization of these resources.

RECREATIONAL ENTERPRISES MANAGEMENT GOALS & OBJECTIVES

The overarching mission of the Recreational Enterprises Program is to establish and maintain a system of park and recreational facilities that provides both tribal and non-tribal members with convenient access to a diverse array of recreational opportunities and cultural uses. Furthermore, the program is committed to the continued and thoughtful expansion of park and recreational facilities as the needs of the community and the potential for sustainable development arise.

Goal 1: Provide Natural/Primitive Settings for Tribal Cultural Balance

- **Objectives:**

- o Actively participate in and provide encouragement and support to organizations and individuals who offer and promote cultural and traditional activities within the Reservation's recreational areas, fostering a connection between recreation and cultural heritage.
- o Clearly designate traditionally used areas for camping, hunting, fishing, gathering of traditional plants, spiritual practices, and ceremonial activities for the exclusive use of tribal members, their immediate families, and their invited guests, ensuring the privacy and integrity of these culturally significant areas.
- o Implement measures to minimize the environmental and cultural impacts on traditionally used recreational areas. This includes limiting development within these zones, restricting off-road vehicle use and the use of motorboats, and actively encouraging non-motorized forms of transportation, such as hiking and horseback riding, within these sensitive environments.

Goal 2: Offer a Broad Range of Outdoor Recreational Opportunities

- **Objectives:**

- o To develop and maintain year-round recreational opportunities that are designed to minimize negative impacts on the natural environment of the Reservation. This will be achieved through the continuous improvement of campgrounds and associated facilities to provide:
 - Family-oriented recreational opportunities and facilities that are responsive to the diverse recreational demands of the community.
 - Well-maintained access to recreational areas, including safe and clearly marked roads and a network of accessible hiking trails.

- A variety of campsites to accommodate different types of camping, including areas for tents, trailers, and recreational vehicles (RVs), with appropriate amenities.
- Adequate and conveniently located parking areas to support recreational activities.
- Day-use areas equipped with picnic facilities, potential concession services, designated swimming areas (where appropriate and environmentally sound), and children's playgrounds.
- Essential infrastructure, including reliable sources of potable drinking water, sanitary toilet facilities, changing areas, showers, and designated food cleaning areas.
- Environmentally responsible infrastructure for managing stormwater runoff (storm drains), wastewater disposal (sewer and/or septic systems, RV pump-out stations), and solid waste disposal, adhering to best management practices.

Goal 3: Develop Unique Natural Areas for Nature-Based Recreation

- **Objectives:**

- o Carefully evaluate unique natural areas within the Reservation, such as stream courses, sandy or rocky areas, and distinctive geological formations, for their potential as nature-based recreation resources. Any development in these areas will prioritize the preservation of their inherent natural qualities, ensuring that recreational facilities are designed to complement, rather than detract from, the existing environment.
- o Strategically locate recreational areas that are open to the general public along existing infrastructure, including state, county, and tribal roads, and in areas adjacent to sites already utilized for recreation. This approach aims to minimize the creation of new access roads and the associated environmental impacts.
- o Actively engage in the Tribal Project Proposal Process (3P) to ensure that the areas surrounding public recreation sites are maintained in an aesthetically pleasing condition. This includes discouraging any development, installation of utility poles, or construction of unnatural structures that would negatively impact the visual character and natural beauty of these recreational areas.

Goal 4: Develop Sustainable Recreation Opportunities

- **Objectives:**

- o Ensure that any tourism or recreational development opportunity is carefully assessed for its compatibility with the local ecosystem and the broader natural environment of the Reservation, prioritizing ecological sustainability.
- o Mandate that all recreational development projects incorporate design principles and construction practices that minimize their impacts on the natural environment, including measures to reduce habitat disturbance, control erosion, and manage waste effectively.
- o Foster the development of tourism and recreational opportunities in a manner that is consistent with and receives support from local and regional residents, ensuring that these enterprises benefit the community and respect local values.
- o Design tourism and recreational opportunities with the goal of achieving long-term financial self-sufficiency, ensuring that user fees and other revenue streams are sufficient to cover the costs of operation, maintenance, and potential future improvements.
- o Design the construction, ongoing management, and patterns of visitation associated with tourism and recreational opportunities in a manner that minimizes energy consumption and actively encourages environmentally sensitive behavior among both those involved in providing the opportunities and those participating in them.

Climate Change Strategy: Building Resilience for a Changing Future

Climate change, a pervasive global phenomenon, is demonstrably altering fundamental Earth systems, profoundly influencing hydrologic processes, atmospheric conditions, and established weather patterns. Scientific consensus confirms that the last decade was the warmest period in at least the past 1,500 years, underscoring the unprecedented rate of global warming. Within the United States, a discernible warming trend has been observed over the last century, with the ten warmest years on record occurring since 1990, further highlighting the accelerating pace of climate change impacts. These shifts are manifested in tangible ways, including an increase in the length of growing seasons and a northward migration of plant hardiness zones due to milder winter temperatures. Furthermore, significant changes are being documented in wildlife behavior, such as altered wintering ranges, shifts in pollination timing, variations in hibernation periods, and other phenological events, indicating widespread ecological responses to a changing climate.

The Intertribal Timber Council's comprehensive assessment of climate change provides valuable insights into regional impacts. Their analysis indicates an overall increase of

six percent in precipitation across the United States over the last 100 years. Critically, this increased precipitation is shifting towards a greater proportion of rainfall compared to snowfall, resulting in a seven percent reduction in overall snow-covered area since 1970. This trend has significant implications for water resources, particularly in regions reliant on snowpack for water storage and gradual release. The assessment also highlights the increasing frequency and intensity of extreme weather events, such as more severe heat waves, intense downpours leading to flooding, prolonged and intensified droughts, and more frequent and powerful windstorms. In the Western United States, the current drought is recognized as one of the most severe on record and has been exacerbated by record-breaking temperatures, creating a cascade of ecological and socioeconomic challenges. The wildfire season is also being significantly impacted, with fires starting earlier in the year and persisting later into the fall, effectively extending the average duration of the wildfire season and increasing the risk of large-scale, destructive fires.

These fundamental changes in the Earth's climate are exerting significant pressure on the growth, health, and species composition of forestland resources. They are also impacting critical ecosystem qualities and the essential services upon which human populations depend, such as clean water, air purification, and carbon sequestration. The shifting weather patterns are posing unprecedented threats to important plant species (including culturally significant trees), diverse wildlife populations, and irreplaceable cultural resources that are deeply intertwined with the landscape.

Across Indian Country, the impacts of climate change present a significant threat to the degradation or outright elimination of fish, game, and both wild and cultivated plant species that have sustained tribal communities for generations, serving as vital sources of food, traditional medicine, economic livelihoods, and cultural identity. Managers of tribal forests are already observing a multitude of climate change-related impacts, including a marked increase in the severity and extent of wildfires, heightened susceptibility of forests to insect infestations and disease outbreaks, increased frequency and intensity of extreme precipitation events leading to flooding and erosion, more severe and prolonged droughts impacting forest health and water availability, alterations in the timing of key biological events in both plants and animals, and the accelerated spread of some invasive species that can outcompete native flora and fauna.

The United States as a whole has experienced a clear warming trend, with the annual average temperature increasing by approximately 1.3 degrees Fahrenheit over the past century. This warming trend closely mirrors the observed increase in global average temperatures, a phenomenon that the overwhelming scientific consensus attributes

largely to the cumulative emissions of human-generated greenhouse gases into the atmosphere. Notably, the rate of temperature increase began to accelerate significantly starting around 1970, with the most rapid warming occurring during the winter season in many regions.

Regional Conditions

(To be added. This section will provide a detailed overview of the specific climate change impacts and observed trends relevant to the La Jolla Indian Reservation and the surrounding Southern California region. It will incorporate local climate data, projections for future changes in temperature and precipitation, and information on specific regional vulnerabilities, such as water scarcity, increased wildfire risk in the chaparral ecosystem, and potential impacts on local biodiversity.)

Forest Ecosystems: Increased Stress and Disturbance

The combination of drier vegetation conditions, historical silvicultural practices that have led to denser forest stands, and decades of fire suppression has resulted in unnaturally overgrown forest ecosystems in many areas. This has created conditions conducive to larger, more intense wildfires. Unlike the historically more frequent, low-intensity fires that primarily cleared out undergrowth, today's "megafires" often consume entire forests, incinerating vegetation and leaving behind completely exposed, sterilized soils covered in ash. The Intertribal Timber Council, drawing upon recent findings from the U.S. Global Change Research Program and the National Climate Assessment regarding the effects of climate variability and change on North American forested ecosystems, highlights the following observed and expected future impacts:

- **Temperature Impacts:** Increases in average temperatures are projected to reduce the growth rates of some tree species, particularly those in already dry forest environments. Conversely, some tree species in higher-elevation forests may experience increased growth rates in the short term due to warmer temperatures and potentially longer growing seasons, although this may be limited by other factors such as water availability.
- **Snowpack Reduction:** Decreases in snow cover depth, the duration of snowpack, and the overall extent of snow-covered areas will lead to drier soil conditions, particularly during the critical spring and summer months when snowmelt traditionally provides essential moisture for vegetation and streamflow.
- **Extreme Weather and Forest Health:** More frequent and intense extreme weather events, such as severe windstorms (especially prevalent in the Western

United States), will decrease the overall vigor and resilience of trees, making them more susceptible to attacks by insect pests and fungal pathogens.

- **Increased Tree Mortality:** Mortality rates are expected to increase in older forests, particularly those already experiencing significant soil moisture stress due to drought conditions and increased evaporative demand associated with higher temperatures.
- **Species Range Shifts:** The suitable habitats for many plant and animal species are projected to shift in response to changing climate conditions. In general, species are expected to move to higher elevations where temperatures are cooler and northward in latitude to track suitable climate envelopes. This can lead to disruptions in existing ecological communities and potential loss of species that are unable to migrate or adapt quickly enough.
- **Interacting Disturbances:** Forest ecosystems will increasingly be impacted by the complex interactions of multiple disturbances, such as the combined effects of drought stress making trees more vulnerable to insect outbreaks, which in turn can increase fuel loads and the risk of severe wildfires.
- **Increased Wildfire Activity:** Wildfire activity is projected to increase significantly across the United States, with some models suggesting a doubling of the area burned annually by the mid-21st century. This increase in wildfire will have profound impacts on forest structure, composition, and carbon storage.
- **Expansion of Insect Infestations:** Insect infestations are expected to expand in both geographic range and severity, potentially affecting even larger areas of forest than wildfires in some regions. Warmer temperatures can accelerate insect life cycles and allow them to expand into new areas, while stressed trees are less able to defend themselves against attack.
- **Invasive Species Spread:** Invasive plant and animal species are likely to become more widespread, particularly in dry forest ecosystems that have been disturbed by events such as wildfires or insect outbreaks. These invasive species can outcompete native species, alter ecosystem functions, and reduce biodiversity.
- **Increased Erosion and Sedimentation:** The combination of fire disturbance (which removes protective vegetation cover) and intense downpour events can lead to increased flooding, soil erosion, and the movement of large amounts of sediment into streams and rivers, especially in areas with steep topography. This can degrade water quality and damage aquatic habitats.
- **Reduced Tree Growth and Regeneration:** The growth rates and successful regeneration of some tree species are expected to decrease, particularly near the southern or lower-elevation limits of their current geographic ranges, as conditions become less favorable for their survival and reproduction.

- **Exacerbation of Stressor Complexes:** Increased drought conditions will likely exacerbate the complex interactions of various environmental stressors, leading to higher rates of tree mortality, slower forest regeneration, and shifts in the dominant combinations of plant species. These changes may result in the formation of novel forest ecosystems with altered structures and functions.

Federal Climate Change Policies and Tribal Engagement

In 2013, the President's Executive Order directed federal agencies to build upon existing progress and develop new strategies to enhance the nation's preparedness for and resilience to the impacts of climate change. This order specifically emphasized the promotion of: (1) engaged and strong partnerships and effective information sharing across all levels of government; (2) risk-informed decision-making processes supported by appropriate tools and data; (3) adaptive learning frameworks that utilize past experiences to inform and adjust future actions; and (4) comprehensive preparedness planning.

In direct response to this executive directive, the Department of the Interior (DOI) and the Bureau of Indian Affairs (BIA) jointly developed a comprehensive Climate Change Policy. The overarching goal of this policy is to facilitate effective and efficient adaptation to the multifaceted challenges posed by climate change across Indian Country. A central tenet of this policy is the utilization of the best available scientific information to enhance the understanding of climate change impacts, to inform sound decision-making processes, and to coordinate appropriate responses to the impacts on tribal lands, water resources, wildlife populations, cultural resources, and other critical tribal assets. The core principles of the Department's policy include:

- **Science-Based Adaptation Planning:** Ensuring that all climate adaptation plans are firmly grounded in the best available scientific data and a thorough understanding of climate change risks, potential impacts, and vulnerabilities. This also includes the important step of incorporating traditional ecological knowledge (TEK) where available and deemed appropriate by tribal communities.
- **Leveraging Collaborative Networks:** Utilizing the established network of Landscape Conservation Cooperatives (LCCs), Climate Science Centers (CSCs), and other collaborative partnerships to enhance the understanding of climate change impacts at regional and landscape scales. These networks also serve to build upon and monitor existing response efforts, coordinate adaptation strategies across multiple sectors, geographical scales, and levels of government, and effectively inform decision-makers with the most current and relevant information.

- 3458 • **Government-to-Government Engagement with Tribes:** Ensuring consistent
3459 and in-depth government-to-government engagement with federally recognized
3460 Tribes to specifically address the unique climate change impacts on tribal health,
3461 critical infrastructure, economic livelihoods, traditional cultural practices, and
3462 natural and cultural resources. This engagement is crucial for the collaborative
3463 development and application of culturally appropriate and effective adaptation
3464 strategies.
- 3465 • **Promoting Landscape-Scale Ecosystem-Based Management:** Actively
3466 promoting the adoption of landscape-scale, ecosystem-based management
3467 approaches. These holistic approaches aim to enhance the overall resilience and
3468 long-term sustainability of interconnected human and natural systems in the face
3469 of climate change.
- 3470 • **Advancing Climate Change Mitigation Strategies:** Actively advancing
3471 approaches to managing linked human and natural systems in ways that also
3472 help to mitigate the impacts of climate change. These strategies include:
 - 3473 ○ Protecting and enhancing the biological diversity of habitats, ecological
3474 communities, and individual species.
 - 3475 ○ Protecting and actively restoring core, unfragmented habitat areas that are
3476 essential for species survival and ecosystem function, as well as
3477 maintaining and restoring key habitat linkages and corridors that allow for
3478 species movement and adaptation.
 - 3479 ○ Proactively anticipating and preparing for shifts in wildlife movement
3480 patterns and distributions that are likely to occur in response to changing
3481 climate conditions.
 - 3482 ○ Maintaining and enhancing key ecosystem services, such as water
3483 purification, pollination, and carbon sequestration, which are vital for both
3484 ecological health and human well-being.
 - 3485 ○ Implementing robust programs for the monitoring, prevention, and slowing
3486 of the spread of invasive species that can be exacerbated by climate
3487 change.
 - 3488 ○ Prioritizing development activities in areas that have already been
3489 ecologically disturbed whenever possible, and actively avoiding
3490 development in ecologically sensitive landscapes, culturally significant
3491 areas, and crucial wildlife corridors.
- 3492 • **Transparent Tracking and Reporting:** Routinely tracking, systematically
3493 recording, and publicly reporting on the progress and outcomes of climate
3494 change adaptation activities. This transparency aims to further public
3495 understanding of the challenges and successes of adaptation efforts, encourage
3496 the engagement of additional partners, promote the adoption of similar effective
3497 activities in other regions, and better inform decision-making on a broader scale.

The Department of the Interior has explicitly prioritized working in close collaboration with federally recognized Tribes to anticipate and proactively prepare for the significant climate change impacts on their lands, communities, and traditional ways of life. To this end, the DOI has directed the Bureau of Indian Affairs to:

- Provide Tribes with the most up-to-date climate change information, including the latest scientific findings, regional climate projections, and best practices in climate change adaptation planning and implementation.
- Respectfully solicit and integrate traditional ecological knowledge (TEK) from Tribes, tribal communities, and Alaska Native villages. This valuable indigenous knowledge complements existing scientific resources by providing unique insights into past and present ecological and sociological changes observed over generations.
- Ensure the ongoing and meaningful inclusion of indigenous groups in any ecosystem-based management implementation processes by providing accessible avenues for tribal participation and actively soliciting information on areas of significant cultural value to ensure their proper consideration and protection.

The La Jolla Indian Tribe possesses deep traditional, cultural, and spiritual ties to the land within its Reservation boundaries and also holds significant subsistence rights and interests in areas off the Reservation. This close relationship with the natural environment makes the potential impacts of climate change on natural resources a particularly serious concern for the Tribe. Furthermore, tribal governance and the exercise of resource rights are intrinsically linked to these lands, and tribal members often cannot easily migrate to follow traditional subsistence animals or plants that may be shifting their ranges in response to changing habitats.

Recognizing these unique vulnerabilities, the Department of the Interior is actively investing in providing data, technical assistance, and training opportunities specifically tailored to the needs of tribal land managers. The DOI is also committed to respectfully and appropriately incorporating traditional ecological knowledge into the broader body of scientific knowledge that will underpin climate change adaptation management strategies in Indian Country.

The Bureau of Indian Affairs plays a crucial role in providing both direct management support and technical assistance to the La Jolla Indian Tribe in addressing environmental and resource management issues, including climate change. Starting in 2014, the BIA planned to provide support for five tribal liaison positions located at various Climate Science Centers across the country. These liaisons serve as vital

bridges between the scientific community and tribal governments, facilitating the flow of information and fostering collaborative research and adaptation planning. Following the acquisition of relevant climate science data and projections, BIA and tribal resource managers work together to develop specific management plans, objectives, and guidelines to address identified climate change priorities and vulnerabilities. Given the cross-cutting nature of climate change impacts, the BIA Cooperative Landscape Conservations (Climate Change) program plays a central coordinating role, aligning BIA climate change funding and technical support to effectively serve the diverse needs of federally recognized Tribes.

Adaptive Climate Change Strategy for the La Jolla Indian Tribe

Like many small, rural communities, the La Jolla Indian Tribe faces significant infrastructure vulnerabilities that are likely to be exacerbated by the projected increase in the frequency and intensity of severe storm events associated with climate change. The Tribe also anticipates potential social and economic stresses stemming from the indirect impacts of climate change on natural resources and traditional livelihoods. The deep traditional, cultural, and spiritual ties that tribal members have to the land and their close relationship with the local ecosystems make the Tribe particularly susceptible to the adverse effects of a changing climate. Moreover, as a sovereign government, the Tribe bears the responsibility of managing its land and local ecosystems, developing long-term plans, maintaining critical infrastructure, addressing the human service needs of its members, and conducting emergency preparedness and response operations, all of which are increasingly challenged by the impacts of climate change.

The La Jolla Indian Tribe is already experiencing the tangible effects of climate change both on the Reservation itself and within the broader Southern California region. Prolonged drought conditions and the increasing frequency and severity of wildfires are already significantly impacting the natural and economic resources of the Reservation, as well as the Tribe's capacity to effectively respond to these environmental emergencies.

In recognition of these existing and future challenges, the Tribe is currently in the process of developing a comprehensive Climate Change Vulnerability Assessment. This assessment will systematically evaluate the Tribe's key assets, resources, and community well-being to identify specific vulnerabilities to the anticipated impacts of climate change. The findings of this assessment will then serve as the foundational basis for the subsequent development of a detailed and actionable Climate Change Adaptation Plan. This Adaptation Plan will provide up-to-date management guidance, specific policies, and practical strategies for an appropriate and effective response to

the ongoing and future impacts of climate change. A central goal of the plan will be to ensure the continued protection of human health and safety within the tribal community. The Climate Change Adaptation Plan will be developed in a manner that is consistent with the Department of Interior's overarching Climate Change Adaptation Plan, the President's Climate Action Plan, and the Tribe's own Integrated Resource Management Plan (IRMP), ensuring alignment with broader federal and tribal priorities.

The various departments and programs of the La Jolla Indian Tribe are already actively addressing climate change issues within the framework of the Integrated Resource Management Plan. The Tribe's identified climate change priorities include:

- Developing and diligently maintaining a comprehensive and adaptive Climate Change Adaptation Plan that is regularly updated with the latest scientific information and evolving local conditions.
- Ensuring consistent access to and utilization of the best available scientific data and information regarding climate change, including downscaled regional climate forecasts that provide localized projections of future climate conditions.
- Implementing state-of-the-art best management practices (BMPs) in the management of all natural resources on the Reservation to enhance their resilience to climate change impacts and to mitigate the Tribe's own contributions to greenhouse gas emissions where feasible.
- Maintaining and continuously enhancing the Tribe's capabilities for wildfire prevention, early detection, and effective response, recognizing the increasing threat posed by wildfires in a changing climate.
- Fostering ongoing and effective coordination with the Department of Interior and the Bureau of Indian Affairs on collaborative initiatives specifically addressing the impacts of climate change on the La Jolla Indian Tribe and the Reservation's valuable natural and cultural resources, ensuring that tribal needs and priorities are effectively integrated into federal climate change efforts.

Additional Planning Resources: A Foundation for Integrated Management

This Integrated Resource Management Plan (IRMP) serves as a comprehensive framework, providing a strategic overview of the overarching management goals and specific objectives for the diverse natural resources of the La Jolla Indian Reservation. It is important to understand that this IRMP is not a standalone document but rather is built upon a robust foundation of more detailed, individual management plans developed and implemented by the Tribe's various departments and programs. These underlying plans offer a wealth of additional information, including specific data sets, detailed implementation actions, and the best management practices (BMPs) that are

actively utilized by the Tribe's dedicated resource management professionals in their day-to-day operations. These individual plans provide the granular detail necessary for the effective on-the-ground management of specific resource areas, guided by the broader strategic direction outlined in this IRMP.

Individual Resource Management Plans

The following list represents some of the key individual management plans that provide more in-depth guidance and operational details for specific resource areas within the La Jolla Indian Reservation:

- **La Jolla Reservation Forest Management Plan 2025:** This plan provides a detailed framework for the sustainable management of the Reservation's forest resources, addressing aspects such as timber harvesting (where appropriate and sustainable), reforestation efforts, forest health management (including insect and disease control), and the integration of cultural considerations into forest management practices. It outlines specific silvicultural prescriptions, harvest guidelines, and monitoring protocols to ensure the long-term health and productivity of the forest ecosystem while respecting tribal values.
- **Wildland Fire Management Plan for the La Jolla Indian Reservation 2025:** This comprehensive plan outlines the Tribe's strategies and protocols for the prevention, preparedness, response, and recovery from wildland fire events on the Reservation and in surrounding areas of tribal interest. It details fire risk assessments, pre-suppression planning, interagency coordination, incident command structures, and post-fire rehabilitation efforts, emphasizing the protection of life, property, cultural resources, and natural ecosystems.
- **Economic Development Plan 2023:** While not solely focused on natural resources, this plan outlines the Tribe's broader economic development strategies, which may include sustainable utilization of natural resources, development of eco-tourism initiatives, and other resource-related economic opportunities. It provides a framework for balancing economic growth with environmental stewardship and cultural preservation.
- **Tribal Historic Preservation Plan 2023:** This detailed plan outlines the goals, objectives, and specific actions of the Tribal Historic Preservation Program for the identification, evaluation, protection, and management of archaeological sites, Traditional Cultural Properties (TCPs), and other cultural resources of significance to the La Jolla Band of Luiseño Indians, both on and off the Reservation. It details survey methodologies, consultation protocols, and strategies for the preservation and interpretation of the Tribe's rich cultural heritage.

- **2019 Climate Change Adaptation Plan:** This plan provides a detailed assessment of the anticipated impacts of climate change on the La Jolla Indian Reservation's natural and cultural resources, infrastructure, and community well-being. It outlines specific adaptation strategies and actions across various sectors to enhance the Tribe's resilience to these changes, including measures related to water resource management, forest health, wildfire preparedness, and public health. *Note: This plan is from 2019 and may be undergoing updates or revisions to incorporate the latest climate science and local observations.*

REFERENCE DOCUMENTS

The development of this Integrated Resource Management Plan has been informed by a wide range of existing documents, scientific research, and tribal knowledge. These resources provide additional detailed information on the specific natural resources of the La Jolla Indian Reservation, relevant environmental conditions, and best practices in resource management. The following is a preliminary list of key reference documents, resources, and reports that have contributed to the development of this IRMP and offer further in-depth information:

- **Ethnographic Studies and Reports:** Documents detailing the traditional ecological knowledge, cultural practices, and historical resource use patterns of the La Jolla Band of Luiseño Indians. These studies provide crucial context for understanding the Tribe's relationship with the land and its resources.
- **Archaeological Surveys and Site Records:** Reports and databases documenting the location, characteristics, and significance of archaeological sites identified on the Reservation and within the Tribe's traditional territories.
- **Water Quality Monitoring Data and Reports:** Records of surface and groundwater quality monitoring conducted by the Environmental Protection Office (EPO), including data on parameters such as temperature, dissolved oxygen, bacteria levels, nutrient concentrations, and turbidity.
- **Watershed Assessment Reports:** Comprehensive assessments of the Reservation's watersheds, including evaluations of water quality, riparian habitat conditions, erosion issues, and potential restoration needs.
- **Forest Inventory Data and Analysis:** Detailed information on the composition, structure, health, and growth rates of the Reservation's forest stands, often including Geographic Information System (GIS) data and statistical analyses.
- **Wildlife Surveys and Species Inventories:** Reports and data on the distribution, abundance, and habitat use of key wildlife species found on the Reservation, including threatened or endangered species and species of cultural significance.
- **Soil Surveys and Maps:** Detailed information on the various soil types present on the Reservation, including their physical and chemical properties, water-holding capacity, and suitability for different land uses.
- **Climate Data and Projections:** Historical climate data for the region, as well as downscaled climate change projections from reputable scientific sources, relevant to Southern California and the La Jolla Indian Reservation.
- **Geological Surveys and Reports:** Information on the underlying geology of the Reservation, including aquifer characteristics and potential geological hazards.

- **Tribal Codes and Regulations:** The official codified laws and regulations enacted by the La Jolla Band of Luiseño Indians that pertain to natural resource management, environmental protection, and land use.
- **Federal and State Environmental Laws and Regulations:** Relevant federal laws such as the Clean Water Act, Clean Air Act, National Historic Preservation Act, and Endangered Species Act, as well as applicable California state environmental regulations.
- **Reports and Publications from Relevant Agencies:** Documents and reports from agencies such as the Bureau of Indian Affairs (BIA), Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), and California state agencies related to natural resource management and environmental issues in the region.
- **GIS Data Layers and Maps:** Spatial data representing various natural resources, infrastructure, cultural sites, and other relevant features on the Reservation, used for analysis and planning purposes.

This list is not exhaustive and will be further developed to provide a more comprehensive compilation of the foundational resources that underpin the management strategies outlined in this Integrated Resource Management Plan. These additional planning resources are essential for a more detailed understanding of the specific conditions, challenges, and opportunities associated with the management of the La Jolla Indian Reservation's valuable natural resources.