

Inyo National Forest Campground Business Plan

November 2021



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2. Executive Summary

The Project Team, which includes the Inyo National Forest (Inyo NF), the Mammoth Lakes Trails and Public Access Foundation (MLTPA), and Quantified Ventures (QV), produced this Business Plan to outline how innovative financing approaches can be used to support investments in outdoor recreation infrastructure on the Inyo National Forest.

The Inyo NF's current recreation infrastructure suffers from a backlog of deferred maintenance, outdated design, and overuse, which negatively impact user experience. Additionally, the gateway communities that rely on these public recreation opportunities for both leisure- and tourism-based economic activity suffer because of debilitated recreation infrastructure. Therefore, the Project Team is working to identify investment opportunities where campgrounds and access sites on the Inyo NF can be redesigned, enhanced, and expanded to meet current and projected visitor demand and adapt to future climate conditions. In particular, the Project Team seeks to identify a financing path that is jointly funded among beneficiaries, jointly managed among stakeholders, and replicable for future projects on other national forests. The total cost of recreation infrastructure investments on the Inyo NF is too great for any single stakeholder to pay for independently, so an innovative joint-funding strategy is needed.

To provide context for the scale of outdoor recreation activity on the Inyo NF, there are an estimated 2,308,758 visitors per year to the Forest that have a total visitor spending of \$391,371,699¹ according to Region 5's 2020 data. To refine this topline number, the Project Team created bottom-up and top-down estimates focused specifically on developed campers across the entire Inyo NF:

- **Developed Campers per Year:** 267,000–280,000
- **Developed Camper Spend per Year (Direct):** [\\$32M–\\$52M](#)
- **Developed Camper Spend per Year (Direct + Indirect):** [\\$45M–\\$72M](#)
- **Estimated Income Increase per Year due to Developed Camper Spend:** [\\$18M–\\$29M](#)
- **Estimated Number of Jobs Supported due to Developed Camper Spend:** [531–858](#)

For the Business Plan, the Project Team worked with regional stakeholders to identify which areas were the highest priority for potential investment on the Inyo NF. The Project Team identified six priority campground areas (hereafter simplified as “campgrounds”), including Lee Vining Canyon, the Mammoth Lakes Basin, Big Pine Canyon, Onion Valley/Grays Meadow, Whitney Portal, and Horseshoe Meadows. Based on the “project concepts” that describe the work to be done or outcomes desired from each investment, the Project Team estimates that the total costs for improvements in these six campgrounds will total between [\\$19.9M and \\$36.2M](#). This estimate is based on similar projects on national forests in the Western US and adjustments from Inyo NF staff, but will fluctuate as the design process is finalized.

¹ US Forest Service, 2020, “Ecosystem Services Data: Working,” July 20

The Project Team plans to leverage three strategies to secure funding for these improvements:

1. Leverage Anticipated Project Revenues to Finance Upfront Costs
2. Justify Financial Support from External Stakeholders Based on Quantifiable Outcomes
3. Empower Eastern Sierra Stakeholders to Capture Public Funds through Appropriate Governance

To identify which project revenues could finance upfront costs, the Project Team analyzed available occupancy data to build a financial model that estimates the revenues associated with each of these target campgrounds. This model projects that these six campgrounds represent \$1.74M–\$2.21M in annual revenues for the Inyo NF. Assuming a 10% profit margin, this implies that existing revenues could be leveraged to finance [\\$1.8M–\\$2.3M](#) of the upfront costs.

Given the gap between what can be financed through existing project revenues and the total project cost, it will be imperative to secure support from external stakeholders. To justify this support, the Project Team developed an analysis of the economic, social, and environmental impacts of these priority campgrounds. To refine the analysis that estimated the overall impact of developed campers across the entire Inyo NF, the Project Team determined that, based on average occupancy and capacity, the six priority campgrounds were responsible for 40%² of all developed camping visitors on the Inyo NF. The Project Team used conservative and optimistic estimates to provide a range of annual impacts for key metrics for the six priority campgrounds, summarized below:

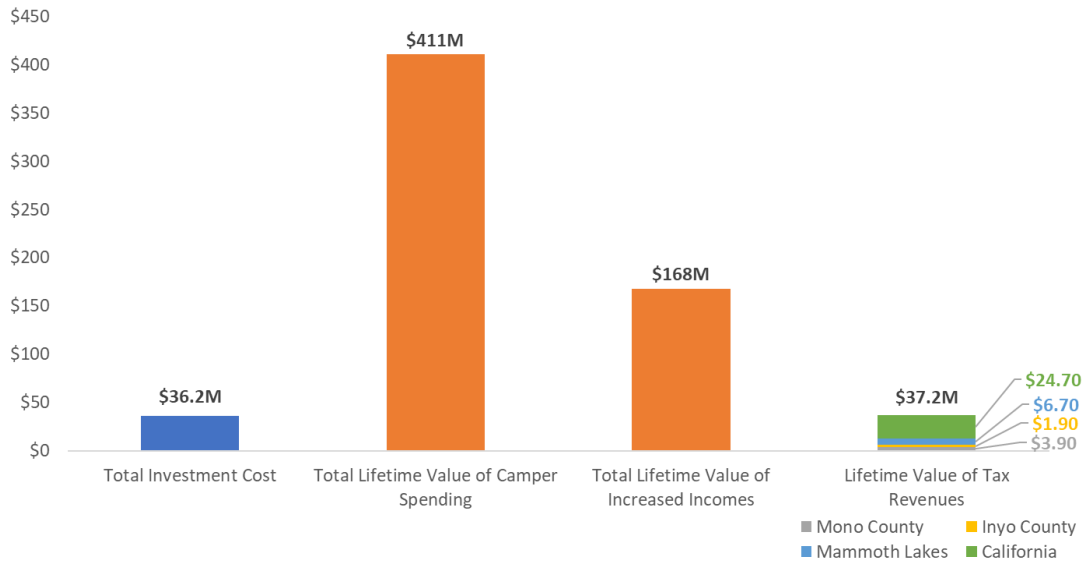
- **Developed Campers per Year:** 107,000–112,000
- **Developed Camper Spend per Year (Direct):** \$14M–\$21M
- **Developed Camper Spend per Year (Direct + Indirect):** \$19M–\$29M
- **Estimated Income Increase per Year due to Developed Camper Spend:** \$7.8M–\$11.8M
- **Estimated Number of Jobs Supported due to Developed Camper Spend:** 226–342

Given that the existing challenges to the priority campground areas are not lack of visitation, but rather overuse, outdated design, and a backlog of deferred maintenance, the return on investment (ROI) for the [\\$19.9M–\\$36.2M](#) upfront costs cannot be assessed using a traditional net present value (NPV) analysis. Instead, the Project Team aimed to assess the investment within the context of the overall economic impact the six priority campgrounds generate in the region. A total investment cost of \$36.2M (using the upper bound of our assumptions to be conservative) is still only 8.8% of the campgrounds' total lifetime value of [\\$411M](#)³ and is less than the total lifetime value of incomes supported by the campground areas ([\\$168M](#)) and the lifetime value of the campground areas' tax revenues ([\\$37.2M](#)).

² Inyo Campground – Corporate Data

³ Assumes 20-year lifetime, 3.45% discount rate.

**Comparing Value of Upfront Investment to Lifetime Value of Camper Spending,
Lifetime Value of Increased Incomes, and Associated Tax Revenues**
(\$M)

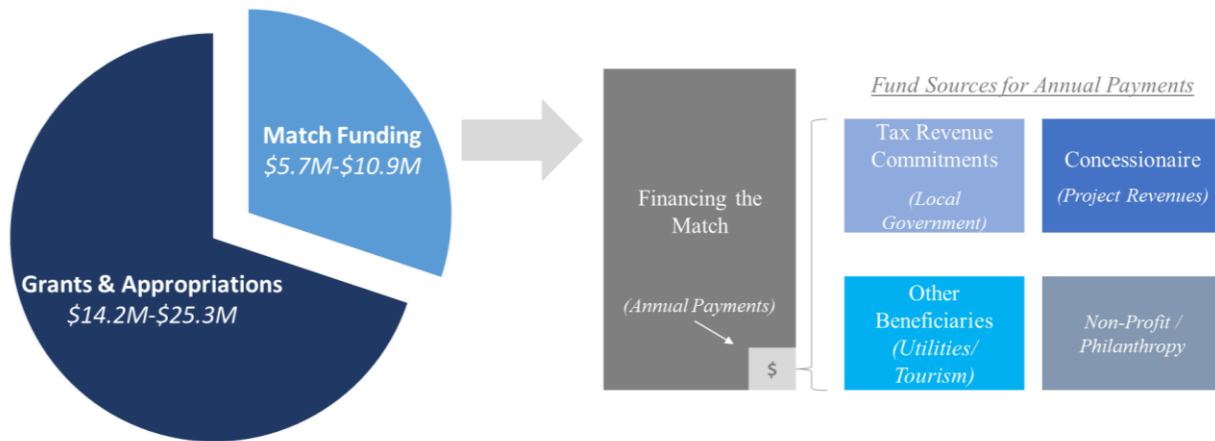


When quantifying [social benefits](#), the Project Team noted how these projects could improve visitor experience through increased capacity, making demand for popular sites more uniform and predictable, representing a total consumer surplus of \$75.6M. Lastly, when quantifying [environmental benefits](#), the Project Team identified how these projects can improve biological control, erosion prevention, water quality, water regulation, and wildfire reduction.

The diversity of these benefits will enable the Project Team to seek funding from a range of [external grants and appropriations](#), including those focused on economic development, recreation and tourism, conservation, infrastructure, and access and equity. This could include funds from the American Rescue Plan Act (ARPA), the Economic Development Administration (EDA), the Great American Outdoors Act (GAOA), the National Park Service’s Land and Water Conservation Fund (LWCF), the United States Department of Agriculture (USDA), California’s Proposition 68, and more. For example, the Inyo NF has already submitted GAOA requests for [FY2022](#) to help support renovation of 22 campgrounds, trailhead parking, and campground amenity rehabilitation.

Leveraging Match Funding to Secure Grants & Appropriations

Total Investment Cost = \$19.9M-\$36.2M



Leveraging large-scale public grants and appropriations will be necessary in order to meet the total investment cost of \$19.9–\$36.2M. However, pursuing these public grants and appropriations will require adequate matching funds. Local stakeholders (e.g., towns, counties) can provide valuable assistance by committing funds towards the “match” – that can then be used to unlock the large-scale grants and appropriations. For this analysis, the Project Team assumed that any grants and appropriations would require a 30% match from the Project Team. This means the Project Team would first need \$5.7M–\$10.9M in funds from other sources, which could then be leveraged into a far larger sum through the grants and appropriations process. This matching funds target can be met by stacking a combination of concessionaire contributions (which are financed through project revenues), local stakeholders being willing to commit tax revenues to support the project (which are justified by economic, social, and environmental benefits), commitments from other beneficiaries (e.g., utilities or tourism agencies), and philanthropic funds.

Looking forward to [implementation](#), the Project Team will seek to develop campground designs based on input from concessionaires and gateway communities, negotiate upfront capital investments, and ensure that project partners have the appropriate governance structures to implement proposed investments. The Project Team will hope to assemble a working group with key stakeholders such as the Inyo NF, concessionaires, and gateway community leaders to digest the findings of the Business Plan and discuss roles in a joint financing and implementation structure.

3. Introducing the Business Plan for Inyo NF Campgrounds

This section summarizes the challenges facing the Inyo National Forest and the Project Team’s objectives for this Business Plan. Additionally, it provides rationale for the need for innovative finance and context underpinning Quantified Ventures’ approach to financing recreation infrastructure. Lastly, it highlights how each element of the Business Plan interacts to address these objectives and challenges.

This Business Plan is a joint effort between the Inyo National Forest (Inyo NF), the Mammoth Lakes Trails and Public Access Foundation (MLTPA), and Quantified Ventures (QV). Given that each member’s roles and responsibilities vary for different proposed actions in this report, for the sake of simplicity the group will be collectively referred to as the “Project Team” throughout this document.

3.1. Deferred Maintenance Challenges and the Need for Innovative Finance

Deferred Maintenance Challenges on the Inyo National Forest

Across the country, land managers such as the United States Forest Service (USFS) are facing increasing strain from the impacts of overuse and climate change. However, due to flat or declining budgets, land managers have neither the resources to properly mitigate climate impacts nor to strategically capitalize on increased visitation. Instead, land managers become locked in a pattern of deferred maintenance and siloed decision-making. The impacts of this cycle reverberate beyond forests’ boundaries, as the economic conditions of gateway communities are typically highly dependent on the vitality of the adjacent public lands. When land managers are only able to fund necessary maintenance rather than investing in projects of strategic importance, opportunities for gateway communities to benefit from public lands are diminished. Innovative financing can overcome this disconnect by uniting land managers and stakeholders around a common vision.

The dynamic described above, where land managers have become locked in a pattern of deferred maintenance and capacity shortfalls, is evident on the Inyo NF. Campgrounds on the Inyo NF provide recreation opportunities to more than 2.3 million visitors each year—who spend [\\$391 million](#) in the region annually—but are in dire need of upgrades. The Inyo NF has \$70 million in deferred maintenance, resulting in the following conditions:

- The Inyo NF’s **infrastructure is not designed for current demand**, which negatively impacts user experience and biophysical resources. Popular sites are overcrowded, leading to dispersed camping that creates new social and environmental challenges for the recreation-based economies of gateway communities in the Eastern Sierra region.
- The Inyo NF’s infrastructure is also **not designed to meet the evolving recreation preferences of modern visitors**. For instance, there is a growing proportion of recreation visitors who prefer RV camping and overnight stays in cabins compared to traditional tent camping. This mismatch between preferences and opportunities can result in a campsite being used for something other than its intended purpose. This is exacerbated by, and sometimes leads to, overcrowding as well

as strain on the infrastructure. For instance, RV camping in basic campgrounds can precipitate environmental degradation and a lower quality of visitor experience for other campers.

- **Climate change impacts** have inflicted damage to campgrounds on the Inyo NF, such as wildfire threats, excessive heat, and flooding. For [instance](#),⁴ more extreme-weather events may increase the vulnerability of campgrounds in heavily forested areas or floodplains. Wildfires on the West Coast, whose frequency and intensity are exacerbated by climate change, are a “[top priority](#)”⁵ for the Forest Service that requires a larger and larger share of the agency’s budget each year.
- The **gateway communities** that rely on these public recreation opportunities for both leisure- and tourism-based economic activity **suffer** as a result of debilitated recreation infrastructure.

Sites and access must be redesigned, enhanced, and expanded to meet current and projected demand and to adapt to future climate conditions. Part of the planning and implementation of campground improvements will need to mitigate current climate change impacts while anticipating future challenges.

The Need for Innovative Finance

As described above, challenges on national forest lands can negatively impact their local regions because gateway communities are typically highly dependent on the vitality of the adjacent public lands. Consequently, gateway communities will lose out on potential benefits if nearby land managers are only able to fund basic maintenance instead of strategic projects. Without a joint financing opportunity, these gateway communities have limited agency to inform the rehabilitation and management of the recreation infrastructure on which they are reliant.

With limited funding, land managers may turn to private concessionaires to support upgrades and maintenance needs, but the current structure of the campground permits does not incentivize concessionaires to contribute to the upfront project costs. Under the current structure, concessionaires are typically allowed only five- to 10-year permits, which is not enough time to recoup potential upfront investments they might make. Additionally, the Forest Service, not the concessionaire, would own any on-site improvements regardless of the funding source. The concessionaire must believe that they can make back their entire investment within the length of the permit; otherwise, they risk losing money if the permit is not renewed. Many permits are issued for only five years, which is a tight timeframe to expect a return on any significant investment.

The combination of the lack of federal investment, a permit structure that disincentivizes investment from private concessionaires, climate change, and overuse has resulted in an estimated \$70 million in deferred maintenance on the Inyo NF. At \$70 million, no single actor can address the needs in totality. Therefore, the size and scope of the problem provides the rationale for innovative finance.

It is tempting to say that this challenge would be solved if appropriated funding from the federal government were increased. However, this paints an incomplete picture. Funding is only a single part of a holistic approach to rural development that leverages and connects existing tools and agencies to

⁴ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf

⁵ <https://www.fs.usda.gov/sites/default/files/2020-02/usfs-fy-2021-budget-justification.pdf>

integrate conservation, recreation, and economic development goals. With economic development efforts in rural communities fragmented across multiple programs and departments, bridging the disconnect between land managers and local communities requires a collaborative and collective approach.

This requires changing the way we fund projects and the types of agencies that are considered in the outdoor recreation economy ecosystem. At the federal and state level, there is a need to connect public works, public health, and economic development agencies, while at the local level there is a need to provide innovative financial solutions for strategic investments to support budget- and capacity-constrained local governments that need it most.

Innovative financing offers the opportunity to provide upfront capital for strategic projects rather than waiting for annual appropriations or grants for incremental progress, and to unite land managers and stakeholders around a common vision for the project and for the region. Ultimately, innovative finance will allow the Inyo NF to better distribute and absorb visitation, sustain natural resources, and enhance economic growth and stability for adjacent gateway communities.

3.2. Business Plan Project Team

The challenges laid out above inspired the Inyo NF to seek support from the Innovative Finance for National Forests (IFNF) program, which supports the development, refining, and scaling of tools, templates, and approaches that direct private investment capital to improve the health of the National Forest System through projects that deliver environmental, social, and financial outcomes.

The Inyo NF joined together with Quantified Ventures (QV) and the Mammoth Lakes Trails and Public Access Foundation (MLTPA) to form a “Project Team” intent on crafting a Business Plan to outline how a range of stakeholders could work together to support and mutually benefit from investments in recreation infrastructure on the Inyo NF. To identify which investments would have the most significant impacts, the Project Team collaborated with USFS district rangers, forest engineers, and recreation staff, as well as with RRM-CLM Services, the concessionaires currently operating the campgrounds on the Inyo NF.

The IFNF grant program is funded by and administered by the USDA Forest Service (USFS) National Partnership Office (NPO), National Forest Foundation (NFF), and US Endowment for Forestry and Communities (Endowment).

3.3. Project Objectives & Defining Success

Due to the deferred maintenance challenges highlighted above, the Project Team sought to identify investments that would help achieve a sustainable equilibrium of visitation and camping, decreasing overcrowding and dispersed camping while also reducing infrastructure maintenance and operational costs.

Unlike other recreation projects where the focus is to increase visitation, this project recognizes that the Inyo NF is a popular recreation destination and that the area cannot keep pace with current visitation, especially with the increases in outdoor recreation associated with the COVID-19 pandemic. In line with the Forest Service's mission to "sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations," Inyo NF's aim is to meet and sustain visitors' current demand. Other regional stakeholders share a similar vision of sustainable recreation, such as the Eastern Sierra Sustainable Recreation Partnership (ESSRP) goal of "ensuring the public's natural resources are enjoyed responsibly so they will enrich and inspire for generations to come."⁶

The objective of this project is to outline how large-scale investments on the Inyo NF's infrastructure can be funded, financed, and implemented in order to address the Forest's outdated campground designs that are ill-suited for modern visitors, its backlog of deferred maintenance, overcrowding, the negative effects of dispersed camping, and climate change risks. **With visitation likely to continue increasing, a significant amount of upfront capital will be needed to not only address current needs, but also to lay the financing and infrastructure groundwork to meet future needs.** Based on the challenges of limited funding and the disconnect between land managers and local gateway communities, Quantified Ventures would define a successful Conservation Finance project on the Inyo NF as:

1. **Jointly funded:** Bringing more stakeholders together to jointly fund a project increases the likelihood of funding the project upfront, rather than incrementally, and drawing on the different resources available to different stakeholders.
2. **Jointly managed:** Joint management of the project will ensure all stakeholder needs are met and allow all stakeholders to feel confident about the use of contributed funds.
3. **Replicable:** Funding for the Inyo NF campground improvements should provide a replicable model that can sustainably address future needs for hard infrastructure of any type, on the Inyo and on other national forests, as well as on lands managed by other federal agencies such as the Bureau of Land Management (BLM) and even potentially on non-federally managed lands such as gateway counties.

⁶ <https://www.essrp.org/>

3.4. Quantified Ventures' Approach to Financing Recreation

The Project Team's hypothesis is that project financing through campground permits can garner a portion of the capital need from concessionaires, but not enough to cover the total cost of the Inyo NF campground projects. Therefore, we intend to fill that gap with funding from grants and payments from local stakeholders (external to the permit agreement) who benefit from these improvements. At the core of this approach are three key strategies:

1. Leverage Anticipated Project Revenues to Finance Upfront Costs

Quantified Ventures works with the Project Team to build a financial model that estimates the potential new revenues and profits realizable due to a project. This includes assessing the ability to increase revenue, drive down costs, and secure additional sources of revenue. Next, Quantified Ventures works with the Project Team to identify avenues to convert those profits into financing that can support the upfront costs of the project. This could include traditional bank loans, conduit issuances, or any number of other approaches.

2. Justify Financial Support from External Stakeholders Based on Quantifiable Outcomes

Quantified Ventures assesses what impacts the project will have on key stakeholder metrics such as avoided environmental, social, and financial costs, as well as added benefits in the form of increased sales, tax revenues, water quality, and more. By quantifying these benefits, Quantified Ventures can identify how much interest various external stakeholders might have in the successful implementation of the project. The analysis can then be used to engage external stakeholders around financial support for the project commensurate with how much each individual stakeholder stands to benefit.

3. Empower Eastern Sierra Stakeholders to Capture Public Funds through Appropriate Governance

While many outdoor recreation projects will continue to require funding from grants, appropriations, and philanthropy to be feasible, a project can become a more attractive candidate for those funding sources by crafting a holistic value proposition that highlights the project's broader impacts across issue areas and creates a governance structure for various agencies to jointly manage these funds, plus contribute their own. Quantified Ventures works with the Project Team to hone this value proposition specific to the region and design the governance structure needed to accept those funds and collaboratively manage projects in line with that holistic vision.

Quantified Ventures' three-pronged approach offers the opportunity to align concessionaire and Forest Service interests, articulate the benefits to gateway communities, and invite them into a jointly funded, jointly managed solution that can be replicated across the Forest and across the country.

3.5. Business Plan Overview

Quantified Ventures has leveraged its understanding and partnership with regional players to inform each element of this Business Plan, including:

- **Identifying Opportunities for Investment:** An overview of Key Stakeholders and Background Context along with a prioritization framework for identifying geographic areas of high potential for investment
- A **Profitability Study** to assess whether project revenues could finance upfront project costs via the current Granger-Thye permit structure
- A **Financing Study** that analyzes benefits other than revenue via campground fees, and the local stakeholders who receive those benefits, to fill the gap between project revenues and total project cost
- An **Implementation Plan** that offers a roadmap of future work needed to act on the information presented in the Business Plan, including governance of stakeholders and potential roles, transaction design, and specific next steps.

4. Identifying Opportunities for Investment

Goal: Identify select geographic areas of high opportunity to innovatively finance campground improvements. This process required several steps:

1. *Identifying Key Stakeholders*
2. *Prioritizing and Identifying Geographic Areas of Focus*
3. *Summarizing Campground Improvement Needs*
4. *Summarizing Presence of Conditions Ideal for Innovative Financing*

The joint funding and joint management of a solution for Inyo NF campgrounds will require collaboration among different stakeholders. Therefore, when seeking to identify high-opportunity areas of investment it is critical to understand who key regional stakeholders in the area are and how they might be impacted by various investment decisions. The role these stakeholders might play in an eventual transaction and implementation effort is discussed further in [Section 7](#).

4.1. Identifying Key Stakeholders

Stakeholder	Summary
Tribes	As original stewards and residents of this region, Tribes inherently should be part of any solution for it to be truly effective in the long term. The Inyo NF acknowledges that National Forest System lands and resources represent significant cultural and economic values to Native Americans. The Forest is the traditional homeland of several Native American Tribal communities and entities whose ancestors occupied the area at the time of first contact with Euro-American settlers 150 years ago. The Forest was traditionally occupied by the Mono Lake and Owens Valley Paiute in the north, and the Panamint (Koso) Shoshone, the Kawaiisu, and the Tübatulabal in the south.
Inyo National Forest	As the land manager for the campgrounds in question, the Inyo NF will be a critical partner in any solution. The Inyo NF extends 165 miles along the California–Nevada border between Los Angeles and Reno. Camping opportunities abound in the Eastern Sierra: there are 78 campgrounds on the Inyo NF, plus 15 campgrounds run by counties (Inyo, Mono) and other agencies (NPS, BLM), and more than 17 privately run campgrounds that are open in the summer months and year-round.
Eastern Sierra Region	The Eastern Sierra region is a patchwork of land managed primarily by the federal government, the Los Angeles Department of Water and Power, and various local public agencies. It offers incredible recreation experiences and is experiencing greater demand than its infrastructure, particularly on public lands, can handle. The Inyo NF is one of many public recreation destinations in the Eastern Sierra, a high-desert landscape in California bordering Nevada. Composed of three California counties (Alpine, Mono, and Inyo), the region is defined by the Sierra Nevada range and home to about 35,000 residents. Unparalleled opportunities for outdoor recreation have compelled visitation to the region for many generations. More than 90% of the region is managed by federal government agencies, including the US Forest Service, the National Park Service, and the Bureau of Land Management. The Los Angeles Department of Water and Power (LADWP) owns the majority of private property in the region.

<p>Eastern Sierra Council of Governments Joint Powers Authority (ESCOG JPA)</p>	<p>The creation of the ESCOG Joint Powers Authority (ESCOG JPA) and the subsequent award of state grants to the ESCOG to enhance the region’s capacity to conduct third-party NEPA demonstrate both the region’s commitment to solving issues of regional concern and its capability to do so. Originally established in 1995, the ESCOG reorganized itself as the ESCOG JPA in February 2020 and includes the City of Bishop, Inyo County, the Town of Mammoth Lakes, and Mono County. Legally, the ESCOG is now a Joint Powers Authority (JPA), governed by a JPA agreement. All members have significant interests in sustainable recreation, with a strong sense of place and strong economic ties to travel and tourism. The ESCOG member agencies have approved a Sustainable Recreation and Ecosystem Management Program (SREMP) that seeks to “integrate responsible ecosystem management, natural resources conservation, sustainable outdoor recreation, and economic development using the best available science and in such a way as to strengthen and inspire all communities in the Eastern Sierra in their pursuits of resilience and sustainability through the functional alignment of partner agencies in pursuit of identified projects.”</p>
<p>Eastern Sierra Sustainable Recreation Partnership (ESSRP)</p>	<p>The ESSRP has done a tremendous amount of work to advance public support for sustainable recreation and identify specific projects for public agencies to pursue, either individually or jointly through the ESCOG JPA. The ESSRP was initially formed in July 2018 through a USFS non-funded Challenge Cost-Share Agreement among public agencies at the federal and local levels. As the partnership has grown, the ESSRP will be transitioning to an MOU to bind its partner participants. This MOU states that ESCOG will endeavor, upon approval and/or direction by its Board and the Boards of its four member agencies, and with consideration of its available capacity, to leverage its position as a regional entity to pursue funding opportunities that may not be accessible to other parties whose jurisdiction is limited to one specific national park, national forest, city, etc. ESCOG will also attempt to pursue funding opportunities that are related to the SREMP or any future programs that may be authorized by the ESCOG Board and all member agencies. Anticipated signatories to the MOU include local and regional tribes; Alpine County, California; City of Bishop, California; Caltrans; Bureau of Land Management; Eastern Sierra Council of Governments; Inyo County, California; Town of Mammoth Lakes, California; Mono County, California; National Park Service; Inyo NF, Pacific Southwest Region (USFS Region 5); and Humboldt-Toiyabe National Forest, Intermountain Region (USFS Region 4). The ESSRP facilitates coordination and communication among all public agencies and tribes in the Eastern Sierra region around common issues that relate to sustainable recreation. MLTPA’s in-kind contributions of staff time for the regular convening/facilitation of the ESSRP have been important and necessary to the successful production of the Business Plan.</p>
<p>State of California / Sierra Nevada Conservancy / Proposition 68 Funding: Sustainable Recreation and Tourism Initiative (SRTI)</p>	<p>In the spring of 2019, the State of California through its Sierra Nevada Conservancy demonstrated a pioneering commitment to rural California’s outdoor recreation economy and natural resources by authorizing the Sustainable Recreation and Tourism Initiative (SRTI). The SRTI has gathered input from the regional community (“recreation stakeholders”) for project ideas, worked with regional experts to develop stewardship communication recommendations (“visitor connection”), and commissioned a climate vulnerability assessment and ecosystem services valuation. By the end of 2021, the SRTI will have worked with the Eastern Sierra Sustainable Recreation Partnership (ESSRP) to develop a portfolio of projects for possible implementation, along with relevant funding sources. The SRTI has produced an adaptation and resilience to climate change assessment for the Eastern Sierra region (“A Changing Climate: Vulnerability in California’s Eastern Sierra”) developed through the lens of sustainable recreation, including documented valuations of the natural resources capital and ecosystem services in the Eastern Sierra along with valuations of the region’s outdoor recreation economy. These efforts have been cited multiple times in the Business Plan. Funding for this project has been provided by the Sierra Nevada Conservancy, an agency of the State of California, under the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68) and in support of the Sierra Nevada Watershed Improvement Program.</p>

<p>State of California: Shared Stewardship Agreement</p>	<p>The US Forest Service’s Shared Stewardship Agreement with California demonstrates regional understanding of the need for partnerships. In August 2020, the State of California entered into a Shared Stewardship Agreement with the Pacific Southwest Region of the US Forest Service specifically targeting California rangelands and forests. The agreement outlines several actions the parties will take together, including vegetation treatments, support for and expansion of related infrastructure, and joint planning. The parties also commit to improving access to sustainable recreation; this action reflects California’s particular focus on access and equity as it relates to recreation.</p>
<p>Mammoth Lakes Trails and Public Access Foundation (MLTPA): CALREC Vision</p>	<p>Implementation of this Business Plan aligns with the values outlined in CALREC Vision. Focusing explicitly on aligning the policy interests of the State of California with land-management objectives of the federal government—which through its various agencies manages close to 50% of the land mass in California—the Mammoth Lakes Trails and Public Access Foundation (MLTPA) sponsored the authorship of a document called “CALREC Vision,” based on input from an advisory board of federal, state, and regional partners including: the Sierra Nevada Conservancy; USDA Forest Service; Mono County Board of Supervisors; Rural County Representatives of California; Bureau of Land Management; Tahoe Regional Planning Agency; California Department of Parks and Recreation; National Park Service; Visit California; California Strategic Growth Council; and the California Landscape Stewardship Network. The document highlights the multi-faceted value sustainable recreation creates within the State of California and makes the case for cross-jurisdictional and cross-functional collaboration among partners.</p>
<p>Los Angeles Department of Water and Power</p>	<p>The Los Angeles Department of Water and Power (LADWP) is a significant private property landowner in the area. LADWP owns the majority of private property in the region, having acquired more than 450 square miles of farm and ranchland in the early years of the 20th century to secure water rights for the Los Angeles region.</p>
<p>RRM-CLM Services</p>	<p>Campsites throughout the Inyo NF are managed through private concessionaire on a Special Use Permit. In 2021, California Land Management announced it was merging with fellow concessionaire Recreation Resource Management to create RRM-CLM Services. Staff from both firms contributed to the assumptions and articulation of the concessionaire perspective included in this assessment.</p>
<p>Mammoth Lakes Tourism (MLT)</p>	<p>Mammoth Lakes Tourism is the primary marketer responsible for attracting visitors to the region. Historically, marketing has been MLT’s primary focus, but the organization is pursuing a more active role in managing and investing in tourism-based strategy as another means of attracting visitors.</p>

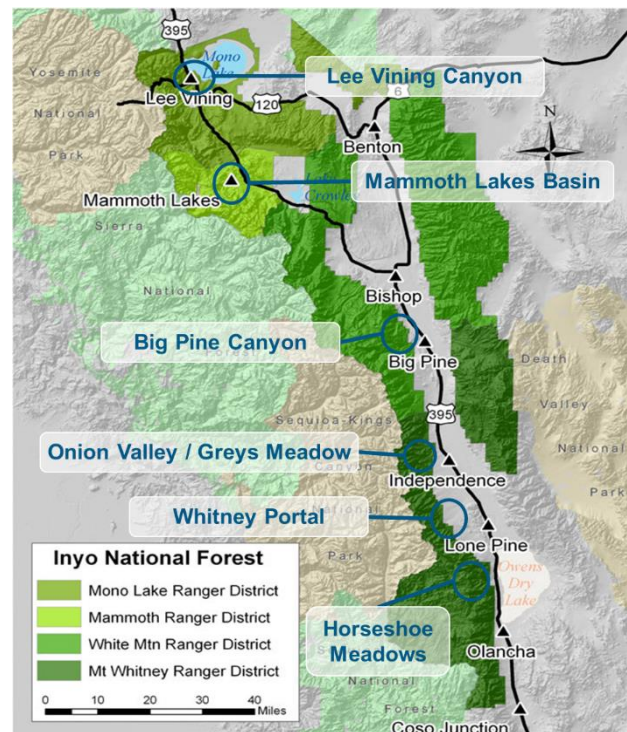
4.2. Prioritizing and Identifying Geographic Areas of Focus

The Project Team worked together to select an area of focus for campground improvements. At the start, the scope included all 78 campgrounds located on the Forest and lacked specificity for what improvements were needed within these campgrounds. Due to the infeasible task of determining problems and solutions for 78 campgrounds within the project timeframe, Quantified Ventures led the team through a process to identify areas of focus so that the team could review with greater specificity the types of improvements needed and could solicit input from stakeholders in a more focused way. This process, described in more detail in Appendix 2, included:

- A survey to district rangers and recreation staff requesting identification of major problems at all 78 campgrounds
- A workshop with Inyo NF staff to match problem buckets with solution types, brainstorm projected impacts, and map project stakeholders
- A prioritization framework to evaluate 78 campgrounds and their associated problems and solutions with an eye toward readiness for innovative financing

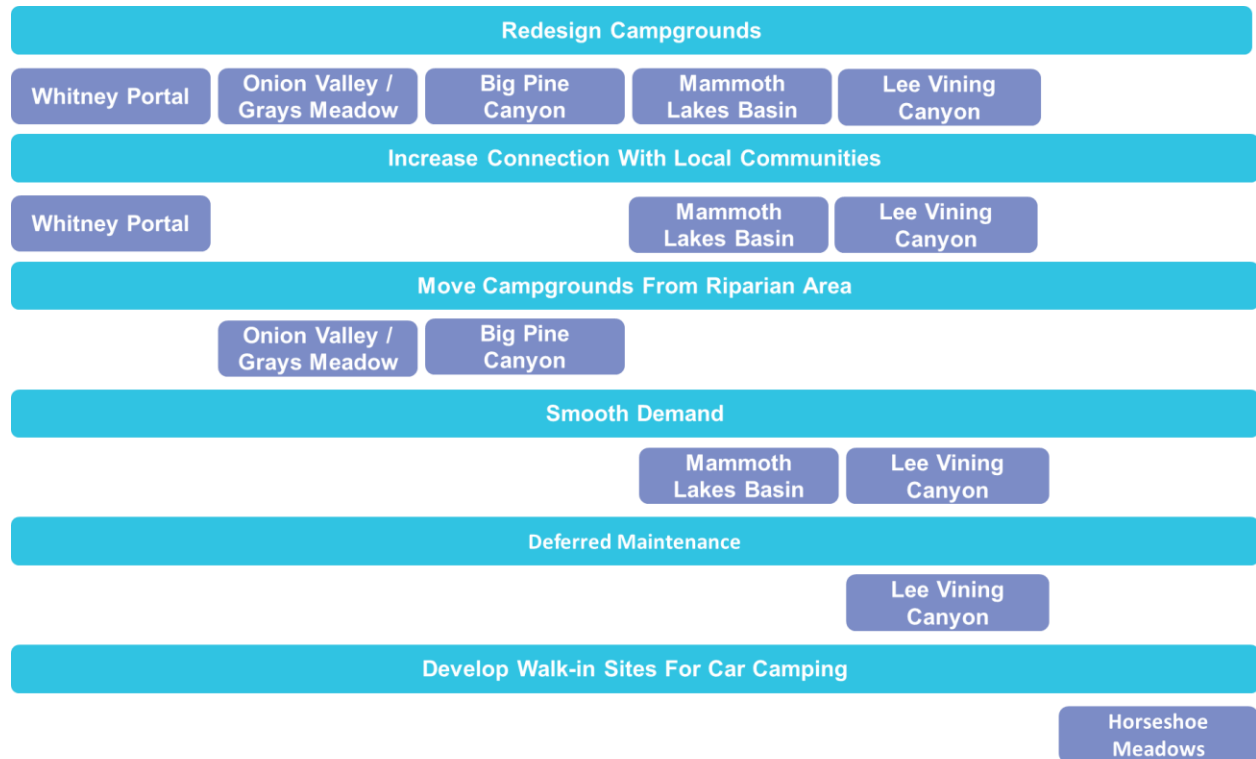
These activities illuminated six geographic areas for focus that represent connections to multiple gateway communities and the potential for a variety of outcomes and beneficiaries. The Project Team created “project concepts” that describe the work to be done or outcomes desired from the project. We anticipate that the design phase will bring more specifics forward, including focused costs; right now, we estimate total costs for all projects in these six geographies to be between **\$19.9M and \$36.2M**, based on similar projects on national forests in the Western US and adjustments from Inyo NF staff. The 36 campgrounds in these six geographic areas currently include the following:

- 1,000 basic campsites
- 43 walk-in sites
- 7 group sites
- 10 equestrian sites with a corral and hitch rail



Selected 6 Geographic Areas in Inyo National Forest

Each of the six sites identified has unique needs. Below is a summary showing which needs the Project Team identified for each area:



4.3. Summarizing Campground Improvement Needs

Lee Vining Canyon. This is the northernmost area that the team examined and holds the campgrounds closest to the eastern entrance to popular Yosemite National Park. Because of this proximity, the several westernmost campgrounds experience overcrowding, while easternmost campgrounds remain underutilized. Design should illuminate options (signage, communications campaign, pricing, etc.) to encourage campers to travel farther down the canyon, benefitting the gateway community of Lee Vining within Mono County. Additionally, the project would conduct strategic facility improvements and basic upgrades for standard amenities, including deferred maintenance estimated at \$1,885,760. Estimated costs for this project range from \$4,000,000 to \$8,000,000.*

Mammoth Lakes Basin. The Mammoth Lakes Basin and nearby town of Mammoth Lakes, within Mono County, are popular attractions for campers and other recreation visitors alike. These popular areas lack the infrastructure (parking, toilets, and trash receptacles) to handle the current demand. The redesign will increase the capacity of these campgrounds, and the improved transportation connectivity between the Lakes Basin campgrounds and the town could help increase capacity, alleviate overcrowding, and increase visitor spending in the town. Redesigning parking, replacing flush toilets with vault toilets, and addressing flooding issues would increase the area's resilience to high demand. Estimated costs for this project range from \$10,324,000 to \$18,148,000.*

Big Pine Canyon. One of Inyo National Forest's many spectacular canyons, Big Pine Canyon creates geographic complexities for maintaining campgrounds. The confines of the canyon and proximity to the creek create riparian and layout issues. Design work would investigate the feasibility of moving campgrounds away from the creek and revising the layout to add capacity and accommodate modern vehicles (e.g., larger turn pads for RVs). The gateway community, Big Pine, lies within Inyo County. Estimated costs for this project range from \$1,264,000 to \$2,528,000.*

Onion Valley/Grays Meadow. In this camping area west of the gateway community of Independence within Inyo County, the Los Angeles Department of Water and Power (LADWP) owns land adjacent to Inyo National Forest and its campgrounds. Often, visitors camp on LADWP land, even though this is not permitted. This project would move Inyo National Forest's campgrounds out of the riparian zone and take advantage of the opportunity for redesign to improve layouts of campgrounds so that they capture more of the LADWP dispersed campers. Estimated costs for this project range from \$1,856,000 to \$3,712,000.*

Whitney Portal. The tallest mountain in the lower 48, Mount Whitney attracts many campers to several campgrounds at its base. This area offers basic, walk-in, and group camping options. Because the Whitney Portal area is a big economic driver for the local community, there is an opportunity to increase transit options from Lone Pine, the community in Inyo County due east of the Portal. Campgrounds will also be redesigned to better accommodate parking for the large number of visitors to the area. Estimated costs for this project range from \$1,920,000 to \$2,840,000.*

Horseshoe Meadows. This is the southernmost area that the team examined, containing one horse campground (with hitch and corral) and two walk-in campgrounds that are not heavily utilized by walk-ins. The project concept discussed (but to be further refined through a future design process) is redesigning the walk-in campgrounds as basic campgrounds, where visitors can drive in and park near their campsite. The addition of other amenities was not discussed. Estimated costs for this project range from \$496,000 to \$992,000.* The project would eliminate or address \$375,828 in deferred maintenance. This area lies within Inyo County.

**All costs will be further refined in design.*

4.4. Summarizing Presence of Conditions Ideal for Innovative Financing

To better understand these project concepts, we conducted an opportunity analysis based on the conditions ideal for the innovative financing approach discussed in [Section 3](#). Each project area had strengths and weaknesses, as shown below. Further engagement with stakeholders as part of next steps could change this assessment or build up relative weaknesses.

Low Score	High Score	Total	Alignment	Size of Financing Gap	Visitor Experience	Scale / Replicable Model	Popular Site	Occupancy	Profitability Outlook	Economic Impact	Complexity
		38	5	5	4	5	5	5	4	4	1
		34	5	4	4	2	5	4	3	4	3
		32	4	3	4	5	2	3	2	4	5
		32	4	3	4	5	2	3	2	4	5
		31	3	5	4	2	5	5	2	4	1
		26	3	2	4	3	2	3	2	1	5

Summary of Opportunity Analysis Across Six Selected Geographic Areas

All 78 campgrounds were considered through interviews and surveys, but the six key areas highlighted above were analyzed using the following criteria:

- Alignment:** A high score in this criterion points to opportunities for partnership and grant funding opportunities. The Inyo NF’s plan to pursue funds from the Federal Lands Transportation Program (FLTP) to improve roads adjacent to Saddlebag Lake Road, including in the Saddlebag Campgrounds, as a match to Mono County’s application for a Federal Lands Access Program (FLAP) for Saddlebag Lake Road is a great example of the leveraging that can take place as a result of this alignment. Pursuing companion funding has been a successful approach for the Inyo NF in the past, such as when the Inyo NF partnered with Inyo County to bring an extra \$1.26M in FLAP funding to South Lake for trailheads, spurs, campgrounds, and a bike staging area. For the campground improvements, we considered:
 - Alignment with regional sustainable recreation vision
 - Alignment with other projects sponsored by individual jurisdictions (e.g., Town of Mammoth Lakes’ [Walk Bike Ride⁷](https://www.ci.mammoth-lakes.ca.us/739/Walk-Bike-Ride-Action-Plan) action plan, the City of Bishop’s expansion of reliable air service to the region, projects submitted for GAOA funding in future years, etc.)

⁷ <https://www.ci.mammoth-lakes.ca.us/739/Walk-Bike-Ride-Action-Plan>

- **Size of the Financing Gap:** A larger capital need provides a more compelling argument for financing and blended funding and financing as opposed to straightforward funding through traditional sources.
- **Visitor Experience:** Positive visitor experience is key to the mission of the Forest Service, and any large-scale capital projects must align well with this mission.
- **Scale/Replicable Model:** This criterion assesses whether projects are indicative of larger problems on the Forest and provides lessons learned for replication. Because we examined a subset of the 78 campgrounds, and because issues of outdated infrastructure are not unique to the Inyo NF, this criterion reflects whether financing strategies for these projects can be used to address projects in other campgrounds and on other Forests.
- **Popular Site:** Campgrounds located close to major attractions received a higher score, based on expected high occupancy as well as the marketing value of improving campground infrastructure in iconic areas.
- **Occupancy:** Differing from the “Popular Site” criterion, Occupancy focused exclusively on how many overnight campers the campgrounds hosted each season regardless of nearby attractions and marketability. While there were gaps in data availability and issues with data quality, this assessment of occupancy reflects the best professional judgement of the Inyo NF staff based on days the campsites are open (e.g., not year-round). Concessionaires have articulated that extending campsite availability into the shoulder season is unprofitable because the low level of visitation doesn’t offset the operational costs.
- **Profitability Outlook:** Early indications of profitability of projects in each area sets expectations around how many of the projects can be financed through the profits that the projects themselves generate. We conducted an in-depth Profitability Study (described in [Section 5](#)).
- **Economic Impact:** The extent to which a set of projects will positively impact the economies of gateway communities through additional spending and tax revenues.
- **Complexity:** A more complex project introduces project delivery risks that can undermine the financing strategy. Partners should be aware of these risks and assess the extent to which they can be mitigated.

4.5. Key Takeaways

Responsibility for implementing the Business Plan will be shared amongst the Project Team and external stakeholders where relevant. When implementing the Business Plan, the Project Team will use this analysis to:

- Work with stakeholders to validate these areas as prime opportunities
- Pursue NEPA action as needed
- Invest in a collaborative design process
 - The Inyo NF has secured FY2022 GAOA funds to support design work, but this does not include facilitation of partner input into the designs.
 - The Inyo NF can pursue, through partners, funding for illustrative drawings and facilitation of sessions with key partners (e.g., concessionaires, Inyo County, Mono County, Town of Mammoth Lakes) to determine their priorities and whether any can be met through campground design.
 - The ESCOG JPA, in its defined role supporting the ESSRP, can provide independent analysis of financing scenarios, produce conceptual renderings of the infrastructure to be built, and support coordination and facilitation with external beneficiaries.

5. Profitability Study

Goal: Determine the extent to which additional campground revenues resulting from improvement projects can be used to support upfront project costs and then identify the remaining funding gaps. This section evaluates:

- 1. Existing Revenues*
 - 2. Profitability Analysis*
 - 3. Key Takeaways*
 - 4. Next Steps*
-

5.1. Existing Revenues

For any project, we must start with an understanding of the status quo. The Project Team was provided with total capacity and projected occupancy figures⁸ for the priority campground areas, along with actual visitation and revenues data⁹ for select campgrounds. The Project Team built a model synthesizing these two data sources in order to extrapolate projected revenues for the entire Inyo NF and for the six priority campgrounds. The Project Team then matched available occupancy data to publicly available campground rates to project an estimated range of the revenues generated by all the selected campgrounds. The range of annual revenues for the target campgrounds reflects the difference between extending conservative assumptions based on the occupancy data that is missing (yielding \$1.74M in projected revenues) and extending optimistic assumptions (\$2.21M). These high-level projections were then broken down by each individual campground based on their representative proportion of annual occupancy. Lastly, the Project Team investigated what proportion of campgrounds the selected campgrounds represented within the entire Forest (40%)¹⁰ in order to project the potential revenues generated throughout the Inyo NF.

Projected Annual Revenues	Using Conservative Assumptions (Low)	Using Optimistic Assumptions (High)
All Inyo NF Campgrounds	\$4.37M	\$5.53M
Target Campgrounds	\$1.74M	\$2.21M

⁸ Inyo Campground – Corporate Data

⁹ 2018 Occupancy Data

¹⁰ Inyo Campground – Corporate Data

Target Campground Area	Estimated % of Visitation for Target CGs	Nightly Rates ¹¹	Projected Annual Revenues for Target CGs (Low)	Projected Annual Revenues for Target CGs (High)
Lee Vining Canyon	16%	\$19–\$100	\$275,000	\$348,000
Mammoth Lakes Basin	47%	\$25–\$80	\$811,000	\$1,026,000
Big Pine	11%	\$25–\$85	\$184,000	\$233,000
Onion Valley/Grays Meadow	6%	\$25	\$108,000	\$137,000
Whitney Portal	21%	\$18–\$70	\$364,000	\$461,000

It is worth noting that these are rough estimates due to the limited data accessible to the Project Team. The limitations of this analysis are reflected in the recommendations made by the Sustainable Recreation and Tourism Initiative, which stressed the importance of quality data when making decisions regarding investments into outdoor recreation infrastructure.¹²

The Granger-Thye permit structure requires that concessionaires bid on a permit with a percentage gross revenue. We can assume that these campgrounds generate some profit, enough to incentivize private businesses to operate them.

5.2. Profitability Analysis

Campgrounds are revenue-generating opportunities often operated by for-profit enterprises, offering the potential to borrow based on future anticipated profits. Due to appropriation law, the USFS cannot leverage that cash flow to provide the funds themselves. Therefore, this analysis considers a concessionaire or other partner as crucial to securing upfront capital. There is a potential opportunity to specify desired improvements in the prospectus to private concessionaires to gain their commitments for upfront funding through the permit for a portion of the improvement project.

We consider four primary factors when evaluating whether investing in campsite improvements will be profitable. Engaging concessionaires to understand these tradeoffs will be critical for the USFS to secure their buy-in and investment in the projects. Factors include:

- (1) **Capital Costs:** What is the cost of improvements?¹³
- (2) **Revenues:** Will improvements generate additional revenues through increased rates or higher demand?
- (3) **Operating Costs:** What impact will improvements have on operating costs in relation to revenues?
- (4) **Cost of Capital:** Is the cost of capital low enough to ensure future profit can support debt repayment?

¹¹ <https://www.fs.usda.gov/inyo>

¹² https://mltpa.org/images/downloads/703_02_MAMM-04.0_Cutsheets_v05_FINAL_.pdf

¹³ Please note that all cost estimates are preliminary and based on similar projects in the region as well as on input from Inyo National Forest staff; project designs would be needed to refine these costs. Cost estimates reflect the cost of building something new. While in many instances project work will not require new construction, we believe this is an adequate proxy that reflects the amount of work needed for redesigning and/or moving campgrounds.

To better equip the Forest Service to engage concessionaires through the prospectus process, Quantified Ventures assessed the key indicators of profitability for different types of projects in relation to the upfront investment cost for each type of project. This assessment looked at the following indicators across the following types of projects:

	<i>Basic</i>	<i>Walk-In</i>	<i>Group</i>	<i>RV</i>	<i>Simple Cabin</i>	<i>Premium Cabin</i>
Investment Cost (per unit)	\$14,000	\$7,000	\$28,000	\$55,000	\$40,000	\$65,000
Daily Rate*	\$24	\$6	\$76	\$60	\$110	\$160
Operating Margin (per night)	\$6	\$2	\$19	\$30	\$85	\$110
Operating Margin (percentage)	25%	25%	25%	50%	77%	69%
Net Present Value (NPV)	\$(1,441)	\$(3,986)	\$9,678	\$5,285	\$130,800	\$ 156,043
Internal Rate of Return (IRR)	4%	-2%	8%	6%	28%	23%
Years to Break Even (discounted)	20	20	14	18	4	5
Benefit-to-Cost Ratio (discounted)	0.97	0.75	1.07	1.05	2.45	1.94

*Rates vary from campground to campground throughout the Inyo NF; an average was used. Where offerings do not currently exist within the Inyo NF, we used rates that RRM-CLM use in other locations.

For this analysis, we assumed a 5% discount rate, a 20-year project life, and a 3% inflation rate for both costs and campground rates. We also assumed a baseline occupancy of 70%, with an annual 1% increase in occupancy, given that these investments may attract more visitors. We assumed a consistent 158-day operating season, though this varies across Inyo NF's campgrounds. We completed the analysis agnostic of the type of financing and specific rates, so assumed cost of capital is 0% for illustrative purposes. While the effects of climate change may lengthen the seasons for outdoor recreation infrastructure¹⁴ (e.g., gets warm earlier in the year, stays warm later in the year), the shoulder seasons are typically unprofitable for concessionaires given lower visitation rates; therefore; extending the season would not improve the economics of the investment.

This assessment does not include other key considerations or tradeoffs among investments, such as infrastructure needs in addition to the project (e.g., installation of water lines, bathrooms, signage, etc.). These infrastructure needs are site dependent but could present an opportunity for concessionaires to contribute to improvements beyond the campgrounds themselves. Additionally, this assessment does not look at the benefit of scaling; the assessment looks at project type on a per-unit basis. Installing 20 of one type of campsite could be more beneficial, given economies of scale for design and construction. Because of these gaps, this assessment is meant to be a tool to help with decision-making, along with consideration of other factors.

¹⁴ Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. (California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018. Statewide Summary Report. California's Fourth Climate Change Assessment. Publication number: SUMCCA4-2018-013.

Additionally, this assessment does not include the effect that other sources of funding would have on feasibility, mainly lowering the project costs. For instance, a project with a negative internal rate of return under our current assumptions could have a positive one if the amount needed to be financed is lower. Critically, project types with a Benefit-to-Cost Ratio below 1 under our current assumptions will need additional funding. Some projects, such as basic campsites, have a negative net present value (NPV) and may not appear to be an attractive investment on their own, but are necessary to include as part of a holistic portfolio of offerings (i.e., the Inyo NF should not offer only premium cabins).

5.3. Funding Gap

As mentioned in the previous section, the Project Team estimates total costs for all projects in these six geographies to be between **\$19.9M and \$36.2M**. While concessionaires may be able to contribute to support some of these project costs, the Project Team would not expect the concessionaires to fully fund the project. To illustrate this point, below is an example of what upfront capital could potentially be provided through a concessionaire and the size of the gap that would remain. Please note that this is used as an illustrative example only and is not meant to serve as a recommendation.

	Using Conservative Assumptions (Low)	Using Optimistic Assumptions (High)
Capital Need	\$19.9M–\$36.2M	\$19.9M–\$36.2M
Target Campgrounds Revenue	\$1.74M	\$2.21M
Projected Profit Margin	10%	10%
Projected Profits	\$174,177	\$220,527
Debt Coverage Ratio	120%	120%
Profits Available for Financing	\$145,148	\$183,772
Interest Rate	5%	5%
Project Term	20	20
Implied Available Financing	\$1,808,862	\$2,290,208
Capital Gap	\$18.1M–\$34.4M	\$17.6M–\$33.9M

5.4. Key Takeaways

- Whether an investment is more or less profitable by these indicators will determine whether a concessionaire would consider an upfront investment in a project and whether the same **concessionaire could be persuaded to cover additional costs that contribute to the success of the project**, like addressing infrastructure needs to meet public expectations such as bathrooms, signage, roads, and water connections to the site.
- **Tradeoffs among projects are possible.** If only a fixed amount of funding is available, funding more-expensive sites may mean fewer sites get funded overall.
- **Simple and premium cabins show the highest operating margin** (percentage and per night) of all project types (at 77% and 69%, respectively). This margin provides a buffer in maintaining profitability against deviations from our assumptions. It provides the concessionaire the best opportunity to recoup costs of an upfront investment.
- Two investments, walk-in campgrounds and basic campgrounds, have a negative NPV, meaning that their projected future revenues are not enough to offset their upfront costs. Therefore, with the current assumptions, we **cannot expect a concessionaire to cover the entire project cost**, so these improvements would have to be subsidized from other sources.
- **Changes to key assumptions could change this analysis.** Increased daily rates could improve profitability. For example, a 3% change in rate charged for basic campgrounds could make the investment NPV positive. Note: A negative NPV does not imply that the sites are unprofitable, only that the profits are not significant enough to offset the initial upfront costs. Conversely, walk-in campgrounds would require a more significant rate increase of 33%, from \$6 to \$8. A lower cost of capital (discount rate) could improve deal economics.
- Assessing the years to break even shows that with a minimum of four years needed to break even (for simple cabins), **a permit length of five years is a difficult timeframe for concessionaires to consider** investing upfront capital to make improvements. Most of the projects require five years or more to break even (where the cash coming in equals the cash invested upfront). Note: This value is discounted to reflect the concessionaire's cost of capital (i.e., how much interest a concessionaire needs to pay to take out a loan).
- **Four of the investments (basic sites, walk-in sites, group sites, and RV sites) examined required 14 years or more to break even**, which may make contributing upfront investment under a 10-year permit unattractive (even with the possibility of a 10-year extension). Simple and premium cabins have the shortest years to break even, at four and five years, respectively, making them the safest investments for a concessionaire to consider.

5.5. Next Steps

This Business Plan is meant to be a resource for all regional stakeholders and interest groups who may benefit from the proposed investments. Upon public release of the Business Plan, the Project Team will invite public comment. In particular, the Project Team recommends that this analysis be used during the future implementation phase to:

- Consider opportunities for each of these project types in the design phase, taking into account the geography and typical user in each camping area
- Determine which types of projects would be ripe for concessionaire investment based on margin, operating margin percentage, internal rate of return (IRR), and years to break even
- Support the case for a longer permit length (10 to 20 years, depending on the type of projects desired), if using concessionaire capital, in the form of either consolidated fees or additional upfront investment outside of Granger-Thye [fees](#)
- The Inyo NF and concessionaires can consider changes to pricing that would more appropriately reflect the amenities and desirability of the campground and could increase the favorability of these indicators for concessionaire investment
- Negotiate GT fees to support the projects based on available profit indicated in this analysis

If the estimated future revenues from campground projects outweigh the upfront investment costs, concessionaires may be willing to support some of the cost of infrastructure needed for those campgrounds (roads, water, etc.). However, even in this best-case scenario, we assume that there will be a funding gap between what the concessionaire can justify investing and the total investment cost of campground and infrastructure improvements.

6. Financing Study

Goal: Assess the economic, social, and environmental impacts of campgrounds on the Inyo NF in order to identify the most effective funding and financing opportunities for this project. These outcomes can demonstrate benefits to external stakeholders to garner their financial and/or operational support. This includes:

- 1. Projected Economic Impact*
 - 2. Projected Social Impact*
 - 3. Projected Environmental Impact*
 - 4. Pursuing External Grants & Appropriations*
 - 5. Pivoting Towards Implementation*
-

Based on our profitability study, there will likely be a gap in the amount of capital that can be raised up front through concessionaires. We intend to fill the gap in two ways:

1. Securing commitments from external stakeholders that could provide a secure revenue stream for financing.
2. Pursuing outside funding from grants and appropriations that aligns with the broad spectrum of impacts anticipated from the projects.

Quantified Ventures' goal was to assess and measure the impact that the proposed improvements would have on the region, focusing on economic metrics such as how this project would boost sales, increase personal incomes, and create jobs, as well as additional public health and environmental benefits. The goal of this analysis is to equip the Project Team with the tools necessary to demonstrate to external stakeholders (e.g., ESCOG or the State of California) how this project would improve the economic and social fabric of the region, in order to garner their financial support for the project.

This section makes the case for the "return on investment" at the social level, based on regional and individual stakeholder priorities. The Project Team can use this information to make the case for project funding through different grant opportunities and through securing financing from partners.

6.1. Projected Economic Impact

According to the Pacific Southwest Region’s 2020 data, there are an estimated 2,308,758 visitors per year to the Inyo NF that have a total visitor spending of \$391,371,699.¹⁵ The Project Team’s analysis aimed to focus on estimating the spend and overall impact of developed campers specifically. We will utilize this analysis in the design phase to determine the value of maintaining or improving campgrounds based on either projected increases or decreases avoided in sales, personal incomes, and local jobs. We chose to focus on these impacts due to the increased connectivity between the targeted campgrounds and their respective communities. Below is a summary of how the projected economic impacts were calculated:

IMPACT METHODOLOGY

- 1) Estimate the number of developed campers on the Inyo NF.
- 2) Estimate the \$ spent for each audience type per visit based on Inyo NF data.
- 3) Split out estimated visit \$ by category (e.g., food, gas) based on national visitation data.
- 4) Multiply direct impacts by category-specific multipliers to capture indirect and induced impact on sales, income, and jobs.*
- 5) Multiply key metrics by proportion of Inyo NF developed camping visitation attributed to the six target campground areas.
- 6) Apply relevant tax rates to determine benefit to state/local authorities and determine the value of the useful life of the target campgrounds.

Step 1: Number of Campers. The first step in this methodology is estimating the number of developed campers on the Inyo NF. We conducted a top-down and bottom-up approach to estimate the number of developed campers. For the top-down analysis, the Project Team used the most recent National Visitor Use Monitoring (NVUM) survey (2016), which estimated that 11.6% of Inyo NF visitors participated in developed camping.¹⁶ By multiplying this against the total number of visitors to the Inyo NF, the Project Team estimates that there are 267,816 developed campers per year. To provide a range, the Project Team also estimated the total number of camper visits by conducting a bottom-up analysis of the occupancy data for Mammoth Lakes Basin campgrounds¹⁷ and extrapolating out based on what proportion of the Forest’s overall campground occupancy those campgrounds represent, which yielded an upper estimate of 279,895 campers.

The remainder of this analysis will include a “low” estimate and a “high” estimate based on this projected range of campers visiting the Inyo NF.

¹⁵ US Forest Service, 2020, “Ecosystem Services Data: Working,” July 20

¹⁶ <https://apps.fs.usda.gov/nvum/results/A05004.aspx/FY2016>

¹⁷ Mammoth Lakes 2018 Occupancy Data

Step 2: Camping Spending. Next, the Project Team estimated the total spending per camper per trip. The SRTI’s “A Changing Climate” report estimates that an average visitor to Inyo NF spends \$185.04 per visit, which was based on USFS R5 ES working data.¹⁸ In order to provide an additional, more conservative estimate, the Project Team also calculated what average spending would be for Inyo NF visitors if spending from skiing/snowboarding visitors were excluded. If that spending were excluded, average spend per visitor would drop to \$119.79.¹⁹ The Project Team then multiplied the estimated number of visitors and spending together to yield a range of overall economic impact. This analysis shows that campers on the Inyo NF have an annual direct spending impact of **between \$32M and \$52M**.

Inyo NF – Developed Campers	Low Estimate	High Estimate
Number of Developed Campers (Inyo NF)	267,816	279,895
Total Camper Spending per Trip (2019 \$)	\$127.60	\$185.04
Total Direct Spending	\$34,173,312	\$51,791,814

Step 3: Spending by Category. The Project Team aimed to determine how this spending was broken down by category. While this data is not available for Inyo NF visitors specifically, it is available for USFS visitors as a whole. The Project Team looked specifically at what USFS visitors who participated in developed camping, undeveloped camping, and cabin camping spent their money on²⁰. Overall, the largest portion of campers’ spending was used on groceries, gas, and overnight accommodations (motels & camping). This data includes campers who may have spent some nights in a campsite and some nights in a motel on the same trip.

Spending Category (Direct)	% of Total Trip Spend ²¹	Low Estimate	High Estimate
Total		\$34,173,312	\$51,791,814
Groceries	26%	\$8,823,946	\$13,373,247
Gas and oil	24%	\$8,328,243	\$12,621,979
Motel	16%	\$5,407,298	\$8,195,102
Camping	12%	\$4,129,149	\$6,257,986
Restaurant	9%	\$3,218,094	\$4,877,224
Sporting goods	5%	\$1,568,404	\$2,377,015
Entry fees	3%	\$900,813	\$1,365,239
Souvenirs	3%	\$873,796	\$1,324,292
Recreation and entertainment	2%	\$827,538	\$1,254,186
Other transportation	.3%	\$96,032	\$145,542

*Low Estimate: Assumes 267,816 campers with average trip spending of \$127.60

*High Estimate: Assumes 279,895 campers with average trip spending of \$185.04

¹⁸ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf

¹⁹ U.S. Forest Service, 2020, “Ecosystem Services Data: Working,” July 20.

²⁰ https://www.fs.fed.us/pnw/pubs/pnw_gtr961.pdf, Table 12

²¹ https://www.fs.fed.us/pnw/pubs/pnw_gtr961.pdf, Table 12, Weighted Average of NF Visitors, Converted to per visitor per trip

Step 4: Input/Output Modeling: Economic Multipliers. The Project Team multiplied each of these spending categories by the relevant multipliers. Multipliers are used to assess the indirect and induced effects of this spending by measuring how the spending permeates throughout the economy. For example, purchasing a restaurant meal in Mono County requires the restaurant to make purchases of ingredients, utilities, labor, and rent. These purchases would then induce additional spending in the region. To account for these indirect and induced effects in spending, Quantified Ventures used Type II [multipliers](#) from the Bureau of Economic Analysis. These multipliers also estimate the size of the impact that each additional dollar in spending has on increasing incomes and creating jobs.

Spending Category (With Multipliers)	Sales		Income		Jobs	
	Low Estimate	High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate
Total	\$47,664,629	\$72,238,757	\$19,517,923	\$29,580,646	566	858
Groceries	\$12,472,647	\$18,903,085	\$5,797,286	\$8,786,154	174	263
Gas and oil	\$12,003,497	\$18,192,059	\$5,307,947	\$8,044,528	151	229
Motel	\$7,207,928	\$10,924,071	\$2,365,642	\$3,585,280	65	98
Camping	\$5,504,156	\$8,341,896	\$1,806,464	\$2,737,810	57	86
Restaurant	\$4,535,581	\$6,873,960	\$1,797,451	\$2,724,150	43	66
Sporting goods	\$2,163,849	\$3,279,449	\$906,923	\$1,374,499	29	44
Entry fees	\$1,291,316	\$1,957,070	\$505,269	\$744,470	16	25
Souvenirs	\$1,205,532	\$1,827,060	\$491,216	\$765,766	15	23
Recreation and entertainment	\$1,141,713	\$1,730,338	\$478,520	\$725,228	13	20
Other transportation	\$138,410	\$209,770	\$61,205	\$92,760	2	3

*Low Estimate: Assumes 267,816 campers with average trip spending of \$127.60

*High Estimate: Assumes 279,895 campers with average trip spending of \$185.04

Step 5: Identify Portion of Impact Attributable to Target Campgrounds. The Project Team determined that, based on average occupancy and capacity, the six priority campground areas were responsible for 40%²² of all developed camping visitors on the Inyo NF. The Project Team estimated annual economic impacts by multiplying the Inyo NF economic impact metrics by 40%.

Target Campground Areas – Developed Campers	Low Estimate	High Estimate
Number of Developed Campers (Target Campgrounds)	106,833	111,651
Total Camper Spending per Trip (2019 \$)	\$127.60	\$185.04
Total Direct Spending	\$13,631,839	\$20,659,914
Total Direct + Indirect Spending	\$19,013,567	\$28,816,262
Total Income Increase	\$7,785,760	\$11,799,811
Total Jobs Supported	226	342

²² Inyo Campground – Corporate Data

Next, the Project Team aimed to quantify what the cumulative economic value of these priority campgrounds is over the course of their useful life (20 years) by multiplying out the spending above and discounting accordingly:

Total Value of Target Campground Visitor Spending over Useful Life	Low Estimate	High Estimate
Useful Life	20 years ²³	
Interest Rate	3.45% ²⁴	
Total Value – Direct Spending	\$194,620,657	\$294,959,903
Total Value – Direct + Indirect Spending	\$271,455,146	\$411,407,425
Total Value – Increased Income	\$111,156,655	\$168,464,933

*Low Estimate: Assumes 106,833 campers with average trip spending of \$127.60

*High Estimate: Assumes 111,651 campers with average trip spending of \$185.04

Step 6: Impact on Taxes. Lastly, the Project Team assessed how this spending would translate into tax revenues for Inyo County, Mono County, the Town of Mammoth Lakes, and the State of California. To assess which portion of spending would be associated with each entity, the Project Team divided the total direct spending impacts by the estimated occupancy proportion each campground area represented as part of the entire Inyo NF. For example, the Lee Vining Canyon and Mammoth Lakes Basin campgrounds are both in Mono County and represent an estimated 6% and 19% of the Forest’s total annual occupancy, whereas the Big Pine, Onion Valley/Grays Meadow, Whitney Portal, and Horseshoe campgrounds are in Inyo County and represent a combined 14% of the Forest’s total annual occupancy.²⁵

Below is a summary of the various tax rates that were used for this analysis. For each campground area, the Project Team evaluated the relevant jurisdiction and its implications for where sales taxes and transient occupancy taxes (TOT) were allocated:

Relevant Tax Rates by Jurisdiction					
Relevant Tax Rates	Lee Vining ²⁶	Mammoth Lakes ²⁷	Big Pine ²⁸	Independence ²⁹	Lone Pine ³⁰
State Sales Tax (CA)	6%	6%	6%	6%	6%
Mono County Sales Tax ³¹	0.25%	0.25%	N/A		
Inyo County Sales Tax ³²	N/A		0.25%	0.25%	0.25%
Special Tax (to County)	1%	1%	1.5%	1.5%	1.5%
Mammoth Lakes Special Sales Tax	N/A	0.50%	N/A		
Total Sales Tax	7.25%	7.75%	7.75%	7.75%	7.75%
Transient Occupancy Tax (TOT)	12.00%	13.00%	0%*	0%*	0%*

*Inyo County has a 12% TOT, but it does not apply to campgrounds.

²³ <https://webcms.pima.gov/common/pages/UserFile.aspx?fileId=225488>

²⁴ <https://emma.msrb.org/IssueView/Details/ES391684>

²⁵ Inyo Campground Corporate Data & Mammoth Lakes/Tioga Pass 2018 Occupancy Data

²⁶ <https://www.salestaxhandbook.com/california/rates/lee-vining>

²⁷ <https://www.townofmammothlakes.ca.gov/201/Transient-Occupancy-Tax-Information>

²⁸ <https://www.salestaxhandbook.com/california/rates/big-pine>

²⁹ <https://www.salestaxhandbook.com/california/rates/independence>

³⁰ <https://www.salestaxhandbook.com/california/rates/lone-pine>

³¹ <https://monocounty.ca.gov/tax/page/transient-occupancy-tax>

³² [http://www.qcode.us/codes/inyocounty/?view=desktop&topic=3-3_20-3_20_030#:~:text=Inyo%20County%20Code%20\(Inyo%20County%2C%20California\)&text=3.20,rent%20charged%20by%20the%20operator.](http://www.qcode.us/codes/inyocounty/?view=desktop&topic=3-3_20-3_20_030#:~:text=Inyo%20County%20Code%20(Inyo%20County%2C%20California)&text=3.20,rent%20charged%20by%20the%20operator.)

When evaluating tax revenue implications, there are nuances that the Project Team needed to account for. For example, while Lee Vining and Mammoth Lakes are both in Mono County, TOT for Lee Vining is directed to the county, whereas the Town of Mammoth Lakes collects TOT itself for its campgrounds. While Inyo County has a TOT for hotel, unlike Mono County it does not extend the TOT to campgrounds.

Relevant Tax Jurisdictions for Campground Areas			
Campground Areas	Gateway Community	Sales Tax Recipient(s)	Transient Occupancy Tax Recipient
Lee Vining Canyon	Lee Vining	CA + Mono County	Mono County
Mammoth Lakes Basin	Mammoth Lakes	CA + Mono County + Mammoth Lakes	Mammoth Lakes
Big Pine Canyon	Big Pine	CA + Inyo County	N/A
Onion Valley / Grays Meadow	Independence	CA + Inyo County	N/A
Whitney Portal	Lone Pine	CA + Inyo County	N/A

Below is a summary of the estimated tax revenues received by each relevant stakeholder. The State of California receives the bulk of sales taxes because the state sales tax rate (6%) is significantly higher than the local sales tax rates (1.25% to 1.75%). The TOT taxes apply only to spending on campgrounds and motels, but are divided between Mono County and the Town of Mammoth Lakes.

Projected Taxes Impact	Mono County		Inyo County		Mammoth Lakes		State of California	
	Low Estimate	High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate
Sales Tax	\$21,235	\$32,183	\$12,845	\$19,467	\$79,513	\$120,506	\$1,140,814	\$1,728,976
Special Tax	\$84,939	\$128,731	\$77,069	\$116,802	N/A		N/A	
Transient Occupancy Tax	\$72,010	\$109,136	\$0**	\$0**	\$230,132	\$348,779		
Total	\$178,184	\$270,049	\$89,913	\$126,270	\$309,644	\$469,285	\$1,140,814	\$1,728,976

*Low Estimate: Assumes 106,833 campers with average trip spending of \$127.60

*High Estimate: Assumes 111,651 campers with average trip spending of \$185.04

**If Inyo County were to apply its 12% TOT to campgrounds, it would yield an estimated \$172,055 - \$347,593

Given that the table above looks only at annual tax receipts, the next step the Project Team took was to estimate the cumulative benefit of the taxes generated by these target campgrounds over the course of their useful life:

Total Value of Target Campground Tax Revenue over Useful Life	Low Estimate*	High Estimate*
Useful Life	20 years ³³	
Interest Rate	3.45% ³⁴	
Total Value – Mono County	\$2,543,918	\$3,855,469
Total Value – Inyo County	\$1,283,687**	\$1,945,509**
Total Value – Mammoth Lakes	\$4,420,766	\$6,699,950
Total Value – State of California	\$16,287,309	\$24,684,445

*Low Estimate: Assumes 106,833 campers with average trip spending of \$127.60

*High Estimate: Assumes 111,651 campers with average trip spending of \$185.04

**If Inyo County were to apply its 12% TOT to campgrounds, the estimated Total Value would be \$3,740,103 - \$6,908,072

³³ <https://webcms.pima.gov/common/pages/UserFile.aspx?fileId=225488>

³⁴ <https://emma.msrb.org/IssueView/Details/ES391684>

To provide an easy way to assess the impact of various proposed investments, the Project Team distilled the overall impacts above into a per-camper assessment that can be scaled easily depending on the analysis:

Per Camper Impact on:	Low Estimate	High Estimate
Increase in Sales (with Multipliers)	\$177.98	\$258.09
Increase in Income (with Multipliers)	\$72.88	\$105.68
Increase in Jobs (with Multipliers)	0.0021	0.0031
Increase in State + Local Tax Revenues (Direct Spending)	\$16.09	\$23.33

This analysis focused on impacts to sales, income, jobs, and local taxes. Below are key considerations as the Project Team moves into the implementation phase:

- Transient occupancy taxes (12%) are higher than local sales taxes (1.25% to 1.5%) and have fewer restrictions on their use. Due to these factors, local jurisdictions may be more likely to pledge revenues from TOT funds to support this project rather than funds from sales taxes.
- TOT revenue is likely to experience more significant growth as a result of adding capacity (additional campsites) to existing campgrounds. However, these and other revenue sources may already be budgeted toward other items. For instance, some jurisdictions are predicting a reduction in TOT for future budget years as a way to conservatively weather the COVID-19 pandemic. For example, the Town of Mammoth Lakes projected \$13.5M in TOT taxes in FY2019–20, but only \$11.2M in FY2020–21.³⁵ Therefore, early engagement with local officials such as CAOs and CFOs will be important to ensure consideration of TOT or other revenue in support of projects, either to finance or to fund operations and maintenance.

³⁵ <https://www.townofmammothlakes.ca.gov/DocumentCenter/View/10779/Fiscal-Year-2020-21-Adopted-Budget>

6.2. Projected Social Impact

Aside from the economic impacts, the campground improvements will bring social benefits in the form of progress toward the regional vision of sustainable recreation.

In addition to the ability to operate profitably, there is also uncaptured value associated with use of campsites on the Inyo NF. Developed through the lens of sustainable recreation, the SRTI’s “A Changing Climate” report includes valuations of the natural-resource capital and ecosystem services in the Eastern Sierra along with valuations of the region’s outdoor-recreation economy. The report calculates that there is a consumer surplus associated with camping in the area. This represents the additional dollar amount by which the average participant values an activity above what they are asked to pay. The study valued consumer surplus at \$26.60 and \$29.10 for backpacking and developed camping, respectively.³⁶ Overall, the report estimated the total consumer surplus of the Inyo NF to be \$191,260,093.³⁷ Based on their respective proportion of capacity, the target campgrounds for this project are estimated to have a consumer surplus of approximately \$76,500,000. This is value generated by use of the campsites that is uncaptured and has potential as a supplementary value stream. Additionally, this value could be captured by nonprofit groups whose missions are focused on outdoor recreation. Nonprofit partners who tap into this value can potentially be leveraged to support the upfront infrastructure investment during the implementation phase (e.g., Zion National Park Forever Project, Athens-Wayne Outdoor Asset Development Corporation).

Over-visitation and underfunding have long plagued all land-management jurisdictions in the Eastern Sierra. In an effort to collaboratively work through these challenges, the Eastern Sierra Council of Governments (ESCOG) has been reconfigured as a Joint Powers Authority (ESCOG JPA) and regularly participates in monthly ESSRP meetings. The proposed campground investments will contribute solutions to these regional challenges by:

Impact	Significance
Increasing the capacity of campgrounds within their existing footprint	Increasing campground capacity not only offers the opportunity to increase revenues for the concessionaires, USFS, and local jurisdictions, but also reflects the understanding that visitation to the Eastern Sierra is likely to continue to increase. Therefore, increasing capacity now in response to this trend contributes tangible benefits to the regional vision of sustainable recreation.
Creating predictable/uniform demand at popular sites by connecting them easily with campgrounds that currently have a lower occupancy	Not only do several of these projects have the opportunity to increase visitor spending through improved connectivity to local gateway communities, but they also address the heavy demand and resulting burden on local communities (traffic, trash, etc.).

³⁶ https://www.fs.fed.us/pnw/pubs/pnw_gtr957.pdf

³⁷ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf

6.3. Projected Environmental Impact

The effects of climate change are being felt acutely by public lands nationwide, including the Inyo NF. Below is a summary of the types of vulnerabilities to camping and backpacking caused by climate-change impacts in the region, as documented in SRTI's "A Changing Climate" [report](#).³⁸

- **High vulnerability to climate-change impacts on air quality, including smoke and ash.** Direct outdoor exposure to poor air quality may be unhealthy and limit participation. Campsites may also close due to poor weather conditions.
- **Vulnerable to extreme heat and warm nights** due to negatively affected camping experiences resulting in decreased visitation. Even if visitation was unaffected, warmer temperatures tend to drive visitors away from the southern part of the Inyo NF, which adds to the problem of overcrowding in the north.
- **High vulnerability to human health hazards** due to significant impacts from vector-borne diseases and other illnesses. Climate-related human health hazards are often diseases carried by animals that are considered pests, such as mice, rats, mosquitos, and ticks, but can also be spread by humans. If human health hazards, such as the 2012 hantavirus outbreak in Yosemite National Park, increase, parks and forests may temporarily close, deterring visitors from traveling to the area. The Eastern Sierra is a hot spot for three vector-borne diseases: hantavirus, plague, and relapsing tick fever.
- **High vulnerability to landslides** due to significant impacts from several campgrounds being within or below landslide-susceptibility areas.
- **High vulnerability to severe weather** due to significant impacts that may deter visitors from camping. Campgrounds could also be damaged by severe weather, causing them to close. If campgrounds are damaged, there may not be an adequate supply to meet the needs of visitors. More-frequent damage to campgrounds due to severe weather would also drive up the campground operator's insurance premiums, a cost that would likely be passed on to visitors, potentially affecting access and equity.
- **Severe vulnerability to wildfire** based on significant impacts related to the location of campgrounds in wildfire-prone areas. Wildfires can damage these sites, rendering them unusable for visitors. Wildfires can also cause USFS officials to close the Inyo NF to the public due to resource drawdown and other factors. Wildfires do not need to occur on the Inyo NF for the Forest to be affected; as seen in 2021, regional wildfires can cause enough damage to shut down the Inyo NF from a distance.

Given these climate-change risks, the campground improvements to be financed through this project have the potential to address environmental impacts through intentional design, such as:

- **Biological Control:** Ecosystems provide biological-control services through the control of pests, disease-spreading organisms (such as mosquitoes and deer ticks), and invasive weeds. Campground design that attracts dispersed campers or moves campsites out of riparian areas has the potential to address some of the current human impact that hinders parts of the ecosystem that provide biological-control services.

³⁸ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf

- **Erosion Prevention:** Campground designs have great potential to address and mitigate current human-caused erosion and subsequent loss of water quality as well to anticipate and prevent future erosion, which is likely to increase given the shift in precipitation from snow to rain.
- **Water-Quality Improvement:** In addition to erosion prevention, campground design has the potential to decrease the likelihood of trash and spilled or discarded substances entering a water source and degrading its quality.
- **Water Regulation:** Campground design could also help by allowing for better precipitation absorption and less runoff in the face of a changing climate.
- **Wildfire Reduction:** Increasing capacity means campers will have more opportunities to choose to stay in a campground rather than dispersed camp. This will make it easier to monitor campfires, smoking, and stove fires. Fire risk may also be reduced through design by decreasing the distance and time for emergency services to get on scene if people are camping in designated areas closer to accessible routes.

Several projects will likely contribute to improved water quality, including projects to move campgrounds out of riparian areas and projects that, through increased capacity and/or new amenities, aim to capture dispersed campers who are currently camping on land either owned by LADWP or that are the watershed and source of water for their ratepayers. Dispersed camping in the watershed increases sedimentation in the water supply and may even contaminate the water supply with waste.

Additionally, with the region slated to experience more precipitation in the form of rainfall rather than snow due to climate change, campgrounds will need to be resilient in handling more water at once to avoid negative flooding impacts.³⁹ A portion of the Inyo NF's planned investments is aimed at moving campgrounds out of riparian areas and redesigning campground layout to increase capacity not only for people, but also for water, so that campgrounds can withstand more precipitation as rainfall (with accelerated snow melt as well). Campgrounds may also experience an increased frequency in landslides due to increased rainfall, so the design of these resilience features will help avoid the risk of exorbitant future maintenance costs. While these improvements in and of themselves will not generate revenue, resilience by design could help preserve campgrounds and prevent closure days, which will be imperative as the winter season, along with its more lucrative activities, could shorten as more precipitation falls as rain rather than snow.

While it is true that visitation itself can negatively impact the surrounding environment, the team is operating on the assumption that our goal is to add capacity to support the visitors already coming. Creating more modern campgrounds with greater capacity ensures that these visitors have fewer negative impacts on the surrounding environment by managing sedimentation and consolidating waste disposal and trash collection.

³⁹ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf

6.4. Pursuing External Grants & Appropriations

The impacts above can be used to justify partner commitments to financing and align to appropriate funding opportunities. This section outlines funding opportunities from several angles: economic development, recreation and tourism, conservation, infrastructure, and access and equity. As noted, project revenues are estimated to leave a gap in the upfront project cost that must be filled from other sources. Federal and state funding priorities align well with the vision of the Inyo NF and its partners.

American Rescue Plan Act (ARPA)

The American Rescue Plan Act (ARPA), passed in March 2021, will deploy federal funds to states, local governments, and tribal governments in the wake of the COVID-19 pandemic. Programs will specifically target economic fallout from the pandemic and drive toward recovery and resilience.⁴⁰ Part of the package included Fiscal Recovery Funds totaling more than \$65 billion directly to counties. Inyo County and Mono County received \$3.5 million and \$2.8 million, respectively.⁴¹ Given the unique nature of the ARPA as a standalone stimulus rather than as regularly scheduled appropriations, there is a great deal of uncertainty surrounding how the funds will be appropriated. The Project Team should continue its conversations with Inyo and Mono counties to better understand how these funds will be appropriated.



Economic Development Administration (EDA)

ARPA also channeled funds to the Economic Development Administration, which has since formed six different programs to distribute its \$3 billion allocation for assistance to communities to build back better by accelerating economic recovery from the COVID-19 pandemic and building more-resilient local economies. For example, the Travel, Tourism & Outdoor Recreation program will distribute [\\$750M](#) for assistance to states and communities that have “suffered economic injury as a result of job and gross domestic product losses in the travel, tourism, or outdoor recreation sectors.” Inyo and Mono counties rely on tourism and local businesses in the outdoor-recreation sector for tax revenue. While the pandemic encouraged outdoor recreation, counties such as Inyo did see a [reduction](#) in recreation- and tourism-related tax revenue as a result of the pandemic.

The SRTI is investigating whether it can and should pursue one of these EDA programs for its identified priorities. This Project Team should stay engaged in those conversations, even if SRTI partner agencies choose to pursue EDA funds for a different project. A necessary component of any EDA proposal will likely be to increase the capacity of the ESCOG JPA, which would enable the ESCOG JPA to potentially support efforts to jointly fund and manage these campground improvement projects.

⁴⁰ <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds>

⁴¹ <https://www.naco.org/resources/featured/state-and-local-coronavirus-fiscal-recovery-funds>

	NOFOS					
	STATEWIDE PLANNING, RESEARCH & NETWORKS \$90M	BUILD BACK BETTER REGIONAL CHALLENGE \$1B	TRAVEL, TOURISM & OUTDOOR RECREATION \$750M	ECONOMIC ADJUSTMENT ASSISTANCE \$500M	INDIGENOUS COMMUNITIES \$100M	GOOD JOBS CHALLENGE \$500M
GOAL	EDA is supporting states in planning efforts, investing in research that assesses the effectiveness of EDA's programs, and supporting stakeholder communities around key EDA initiatives.	This Challenge is designed to assist communities nationwide in their efforts to build back better by accelerating the economic recovery from the coronavirus pandemic and building local economies that will be resilient to future economic shocks. <i>\$100M for Coal Communities</i>	Through state and competitive grant programs, EDA is focused on accelerating the recovery of communities that rely on the travel, tourism and outdoor recreation sectors, which were hard-hit by the pandemic.	This program will help hundreds of communities across the nation plan, build, innovate, and put people back to work through construction or non-construction projects designed to meet local needs. <i>\$200M for Coal Communities</i>	EDA is allocating \$100 million in American Rescue Plan funding specifically for Indigenous communities, which were disproportionately impacted by the pandemic.	This Challenge aims to get Americans back to work by building and strengthening regional systems and sectoral partnerships to train workers with in-demand skills that lead to good-paying jobs.
SPLIT	Planning: \$59M Research & Networks: \$31M	Phase 1: <\$500k each Phase 2: \$25-75M, up to \$100M	State grants: \$510M Competitive: \$240M			
APPLICANTS	State or designated entity National research & TA providers	All EDA eligibles Phase 1 finalists	State or designated entity All EDA eligibles	All EDA eligibles	Tribes and organizations serving Native Hawaiians and Pacific Islanders.	All EDA eligibles
APPLICATION PROCESS	By invitation Rolling	National competition National competition	State grants allocation Rolling	Rolling	Rolling	National competition
APPLICATION DEADLINE	 STATE PLANNING GRANTS Application due 60 days after receiving invitation RESEARCH AND NETWORKS GRANTS Suggested application submission date: October 31, 2021	Phase 1 deadline: October 19, 2021 Phase 2 deadline: March 15, 2022	 STATE TOURISM GRANTS Application due 60 days after receiving invitation COMPETITIVE TOURISM GRANTS Suggested application submission date: March 15, 2022	Suggested application submission date: March 15, 2022	Suggested application submission date: March 15, 2022	Application deadline: January 26, 2022

EDA Notice of Funding Opportunities (NOFOS) based on ARPA funding

Great American Outdoors Act (GAOA)

The Great American Outdoors Act (GAOA) of 2020 demonstrated a national commitment to and refocusing on the need for investment in the crumbling infrastructure of the country's public recreation system. The [GAOA](#) established the National Parks and Public Lands Legacy Fund, which will provide up to \$1.9 billion per year for improvements at national parks, forests, wildlife refuges, and rangelands. Of the \$9.5 billion authorized for maintenance over five years, 15% of the Public Lands Legacy Fund will go to the USFS. Forests must submit proposed projects for GAOA and pass reviews at the regional and national levels; not all Forests will receive GAOA funding. Nonetheless, GAOA presents an important opportunity for national forests to bring resources to the table and leverage these resources with contributions from other partners. The Inyo NF has sought GAOA funding that will support or complement investments in campground infrastructure and redesign. These include projects for:

Federal Fiscal Year	Projects
FY 2022	<ul style="list-style-type: none"> ○ Design and engineering work for renovation of 22 campgrounds ○ Renovation of trailhead parking and interpretive signage ○ Campground amenity replacement and rehabilitation at Horseshoe/Cottonwood and Grandview

By coordinating submission and execution of these projects with the recreation stakeholders in the region, the Project Team has an opportunity to strengthen these partnerships with demonstrated commitment to proactive management of recreation on public lands.

The Land and Water Conservation Fund (LWCF)

GAOA also fully funded the Land and Water Conservation Fund (LWCF),⁴² which until 2020 had received annual appropriations below its authorization of \$900 million.⁴³ The fund uses fees from offshore oil and gas leasing to support state and local conservation as well as federal land acquisition. With refreshed funding available, the ESCOG JPA could be a prime applicant for funds to preserve the iconic experience of recreating in the Eastern Sierra. This could help account for the fact that opportunities for recreation in rural California are suffering from the State's inability to produce a timely Statewide Comprehensive Outdoor Recreation Plan (SCORP). Funds from the LWCF couldn't be used by the Inyo NF on its forest lands. Instead, the Project Team believes the LWCF should be leveraged for county campgrounds or LADWP lands.

USDA Rural Business Development Grants (RBDG)

[RBDG](#) is a competitive grant designed to support targeted technical assistance, training, and other activities leading to the development or expansion of small and emerging private businesses in rural areas. Towns, communities, authorities, and nonprofits are all eligible for this funding. There is no maximum grant amount for enterprise- or opportunity-type grants; however, smaller requests are given higher priority. Generally, grants range from \$10,000 up to \$500,000. There is no cost-sharing requirement. The ESCOG JPA may be eligible to apply to use these funds for technical assistance, setting up a revolving loan fund, or investing directly in capital improvements.

Proposition 68: California Clean Water and Safe Parks Act

In 2018, California voters supported state Proposition 68, passing a \$4 billion state general obligation bond to fund projects related to drought, water, parks, climate, coastal protection, and outdoor access (California Natural Resources Agency). Proceeds from this issue have been allocated to several agencies that have interests in the Eastern Sierra, including the California Department of Parks and Recreation and the regional Sierra Nevada Conservancy, which will receive \$30 million.⁴⁴ The Sierra Nevada Conservancy has indicated their willingness to fund the types of outdoor-recreation infrastructure included in this project through Proposition 68.

⁴² <https://www.nps.gov/subjects/lwcf/news.htm>

⁴³ <https://www.doi.gov/lwcf/about/overview>

⁴⁴ Mayer 2018

Bipartisan Infrastructure Framework (BIF) Bill and Budget Reconciliation Bill

If passed in its current form, this bill represents tremendous opportunities for leveraging public funds for this work. For instance, in the Senate-passed version, \$35 million would be set aside for the Forest Service “to restore, prepare, or adapt recreation sites on Federal land, including Indian forest land or rangeland, that have experienced or may likely experience visitation and use beyond the carrying capacity of the sites.” The USFS is not the only agency that will receive funds from these initiatives. The BIF, along with the proposed \$3.5T budget reconciliation bill, will provide a variety of federal, state, and local agencies with significant funds to disperse.

Aligning with State Priorities

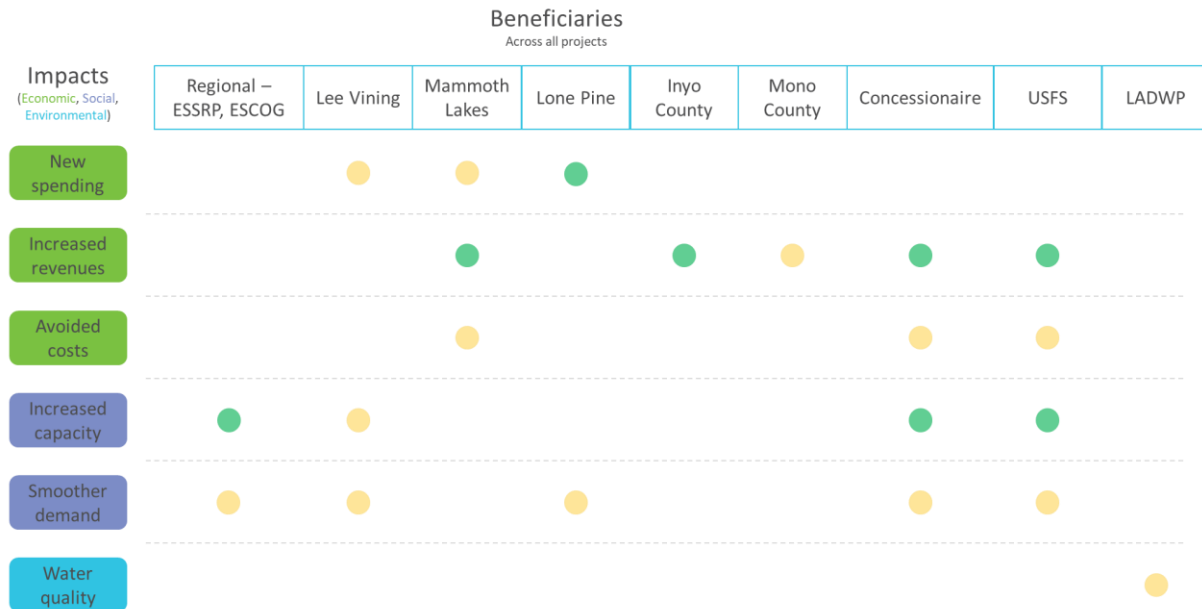
The State of California has articulated four key priorities, including access and equity, nature-based solutions, climate change, and cooperative models. The Project Team is hopeful that key stakeholders such as the Inyo NF, the ESCOG JPA, and local gateway communities can work together to align their vision with the State’s priorities. For example, the ESCOG JPA could leverage its position as a regional entity to pursue funding opportunities that may not be accessible to other parties. The desire for this shared approach is outlined in MLTPA’s [CALREC Vision](#) document, which highlights the multifaceted value sustainable recreation creates within the State of California and makes the case for cross-jurisdictional and cross-functional collaboration among partners. Details on California’s priorities include:

- **Access and equity**: Access to recreation has not historically been equitable, and certain spaces may be more welcoming for some identities rather than others. By offering a variety of campgrounds catering to varying levels of expertise and equipment needed and upgrading facilities to meet modern accessibility standards, the Inyo NF and its partners can play a role in increasing access and equity to regional recreation. Improving access to sustainable recreation is a key action in the Shared Stewardship Agreement between the U.S. Forest Service and the State of California.
- **Nature-based solutions**: The Eastern Sierra is a national and natural treasure. By reconfiguring campgrounds to protect its natural resources and providing opportunities for visitors to interact with this natural infrastructure in a meaningful way, the Inyo NF can generate public commitment to preserving this natural infrastructure for future generations across a diverse set of users.
- **Climate change**: As discussed previously, campgrounds must be redesigned to meet the needs of not only modern campers, but also a changing climate. Redesign with resilience in mind will protect the region’s recreation economy and set an example for the state.
- **Cooperative models**: California’s Shared Stewardship Agreement with the Forest Service also recognizes the need for cooperative models as an innovative financing mechanism to attract private investment.

6.5. Pivoting Toward Implementation

As stated previously, project revenues alone cannot secure the financing of the entire project. Funding can likely be garnered by a collaborative regional body from the sources mentioned above (and others), and some financing may be necessary to plug the gap. This section provides a menu of arguments to justify external support and a list of funding opportunities.

Based on the benefits and beneficiaries analysis earlier in this section, gateway communities stand to gain financial benefit from these projects in addition to the broader social benefits in line with the regional vision of managing visitation sustainably. If campground designs are formed collaboratively with these communities, and if they anticipate a sizeable benefit from the projects, they could decide to contribute some of their recreation-related revenues to the project. This could be done in two ways: (1) pledging annual revenues to partner with the concessionaire and the Inyo NF in adequately maintaining the sites, and/or (2) securing revenues to pay back financing a larger upfront cost as a portion of the capital needed for the project. For the latter, jurisdictions would need a centralizing body to collect and flow funds, and to potentially enter the financing arrangement. The ESCOG JPA could be well situated to play this role. Below is a summary of how various beneficiaries could gain from the economic, social, and environmental benefits associated with the target campgrounds:



Impacts of Projects and Associated Beneficiaries

Key: Significant Benefits | Benefits Dependent on Design

Note: Several gateway communities, such as Bishop, Independence, and Big Pine are not specified here. These communities will benefit from regional increased capacity and smoother demand, but projects are not likely to generate significant spending or revenue benefits for those communities.

Capture and Pass-Through Public Funds: There are numerous sources of federal, state, local, and philanthropic funds that could support campground improvements on the Inyo NF without flowing directly to the Forest itself. For example, the ESCOG JPA (or other partners) could use the authorities specific to them as a regional entity to pursue funding opportunities that may not be accessible to a national forest. Transportation and economic development sectors have done this successfully through the formation of cross-boundary metropolitan planning organizations or economic development districts. Eastern Sierra partners have been building this infrastructure consistently over time.

Securing Revenue Streams: Securing additional financial commitments based on these public funds is an opportunity to leverage that structure and increase its capacity to support campground improvements and projects that solve other issues of mutual concern. The Project Team can work with partners to gauge potential willingness to pay based on the benefits accruing to those partners. For example, on the Wayne National Forest local governments made annual commitments to support the Baileys Trail System as a function of transient occupancy taxes. For this project, the ESCOG JPA could potentially play the role of receiving funds from outside entities given the unique powers with which they are endowed.

Debt and Financing: The ESCOG's Sustainable Recreation and Ecosystem Management Program (SREMP) resolution only authorizes the ESCOG JPA to incur debt that has been secured by the project's identified revenues. If the ESCOG JPA were to borrow funds within these limits, the Project Team could potentially leverage the fact that the ESCOG's status as a public entity (rather than a private enterprise) makes it eligible for cheaper forms of borrowing than other partners might have access to. Any "substantive" action taken beyond the SREMP resolution requires consensus from all four member agencies. The agreement does not restrict deploying ESCOG JPA money onto federal land, as long as all four members are in agreement on this use of funds. ESCOG JPA members currently contribute a modest amount toward a common fund; the JPA agreement does not stipulate an amount, but rather specifies that contributions should be of an "equal" amount.

As we pivot toward implementation, we need to refine what is possible versus what is feasible. The following section provides an overview of tactical next steps, including an assessment of the authorities and capacity of stakeholders to implement this Business Plan.

7. Implementation Plan

Goal: Provide a road map for a next phase of work that would act upon findings from the Profitability Study and Financing Study.

7.1. Groundwork to Prepare for Implementation

Pre-Construction Development

Throughout this Business Plan, we have noted that more detailed project designs will be necessary to better understand the costs and anticipated benefits of each project. Before transaction structuring can begin (including concessionaire negotiation, seeking grant funding, and jointly financing the project), significant progress must be made toward design and other project-approval processes, such as NEPA. Design can be accomplished using GAOA funding (design for campgrounds approved for FY2022) and should be completed in collaboration with the following partners:

Partner	Rationale
Concessionaires	Concessionaires have the best knowledge about what campers want and are willing to pay for. Plus, they can assess ways the project could affect their profitability by providing more amenities or adding new campsites.
Gateway Communities	When land managers are unable to maintain recreation infrastructure, concerns such as waste and misuse of resources become more pronounced. These negative impacts are often felt most acutely by nearby gateway communities. Therefore, involving gateway communities in the upfront project design can help ensure that their concerns are mitigated proactively.

Negotiate Upfront Capital Investments with Concessionaires

Refine Baseline Data: The data on occupancy and visitation should be refined during implementation. For example, anecdotally all partners recognize over-visitation as an issue, but data provided from USFS corporate data records as well as some concessionaire data reflected variable annual average occupancy rates, ranging from 7% for some campsites up to 81%.⁴⁵ It could be that these campgrounds have low occupancy rates due to the lack of maintenance and investment in the campground infrastructure. Additional rigor in data collection and analysis could be key to tracking outcomes of interest to the Inyo NF and to stakeholders as recommended by the SRTI's "A Changing Climate: Vulnerability in California's Eastern Sierra."

The Inyo NF can use the Profitability Study in this Business Plan as it evaluates design decisions on what to redesign or build and where. As the permit to operate Inyo NF campgrounds comes up for rebid, and the desired design of contemplated projects becomes clearer, the Inyo NF can consider ways to incentivize

⁴⁵ Inyo Campground Corporate Data

concessionaires to invest upfront capital in improvements that will benefit their bottom line. The Inyo NF should begin conversations now with USFS regional and national permitting staff on key questions, including:

- How projects would or would not be considered government Maintenance, Reconditioning, Renovation, or Improvement (MRRRI)
- Whether concessionaires would be limited to consolidated offset fees or whether they could also contribute upfront capital separate from their maintenance obligations
- Extension of the permit length to a minimum of 10 years,⁴⁶ given that a concessionaire is unlikely to experience any return on investment in any shorter length of time

Empower Eastern Sierra Stakeholders to Capture Public Funds through Appropriate Governance: In addition to pre-construction development and negotiating capital investments with concessionaires, it will be critical to empower Eastern Sierra stakeholders to use appropriate governance and the relevant tools of economic development to capture public funds for campground infrastructure. The Inyo NF's projects can become more-attractive candidates for potential public funding sources by crafting a holistic value proposition that highlights their broader impacts.

- **ESCOG JPA – Capability:** As highlighted in the previous section, there are constraints around the types of obligations to which the ESCOG JPA can commit. The Project Team aims to support the ESCOG JPA in its defined role, which includes providing independent analysis of a variety of potentially complex financing scenarios to ESCOG JPA members and the ESSRP, producing conceptual renderings that translate the GAOA-funded Inyo NF engineering work into graphic representations of the infrastructure to be built for engagement with infrastructure beneficiaries, and coordinating, convening, and facilitating outreach and engagement efforts with beneficiaries.
- **ESCOG JPA – Capacity:** The ESCOG JPA legally has the ability to take on staff, but there are many challenges with this option, including the cost of hiring public employees in California and the capacity of potential partners to fill these positions via contractual arrangements. To date, the ESCOG JPA has secured an administrative services contractor and legal counsel via contracts with ESCOG JPA members to utilize some time of existing public employees. These members are also facing staffing capacity challenges. An example can illustrate this: if the ESCOG JPA were to secure a grant for road improvements, it would seek to contract out management of the construction work, because it lacks the capacity and expertise to manage this work. It might look to a county, which has experience running public-works projects, but a county may not have the ability to hire additional staff or redirect the time of current staff. In this example, the USFS may be able to contribute construction management for a finite amount of time. [Section 7.3](#) further describes the authorities and capabilities needed in a joint financing/joint management structure.

⁴⁶ While the USFS has typically issued Granger-Thye permits for only 5- to 10-year increments, it has the authority to issue longer-term permits instead. The decision to issue Granger-Thye permits for 5 to 10 years instead of 20 to 30 years is largely a reflection of USFS culture rather than lack of authority.

Next steps on scoping the role of the ESCOG JPA in a potential transaction could include:

- Building a working group of several ESCOG JPA members to explore the opportunity and this Business Plan in further detail
- Employing additional technical capacity to enable ESCOG JPA members to more fully engage in the working group
- Investigating capacity needs in the event of a future transaction and identifying opportunities to build this capacity

If the members desire to grow the capacity of the ESCOG JPA to support projects that benefit the entire region, a support structure for the ESCOG JPA might include the following roles to perform the following functions:

Role	Function(s)
Executive Director	Interface with members; manage other roles
Project Specialist or Liaison	Provide technical capacity to enable the ESCOG JPA to fully consider design plans and ensure integration of these priorities into design and construction
Grant Specialist	Write and manage grants
Contract Specialist	Draw up and execute contracts
Accountant	Manage the ESCOG's bookkeeping
Legal Counsel	Advise the ESCOG JPA regarding contracts, regulatory questions, governance, and other issues

While the scope of the ESCOG JPA remains narrow, one person could perform several different roles (e.g., contract and grant specialist). If the members decide to leverage the ESCOG JPA to take on more regional projects, the ESCOG JPA may need additional support with specialization in each of these areas.

Adding members to the ESCOG could be another way to expand its capacity. Federal and state agencies are permitted to join a Joint Powers Agreement in California, but the Joint Powers Authority (the ESCOG JPA) has only the powers that are common across all entities; it is only as powerful as its weakest member. Another way to involve additional parties is to invite them to join the JPA's board of directors. In this capacity, board members would vote on matters that come before the board, but would not have a say in the foundational document, the JPA agreement.

Additionally, tribal engagement will be critical to the sustainability of recreation in the region. As the original stewards of this land, and as ongoing users of its natural and cultural resources, tribes can offer critical insight into ways to manage the land equitably and sustainably. Tribal engagement must be done carefully, as tribes are considered sovereign nations and warrant government-to-government relationships. The Project Team sent the Inyo NF's tribal liaison letters describing the project and shared some information regarding the scope of the projects. Two tribes, the Big Pine Paiute and the Fort Independence Paiute, contacted Quantified Ventures for more information, which was shared promptly. No further input was received, but the ESSRP has formed a Tribal Coordination Sub Committee to figure out how to best engage regional tribes in the ESSRP. This progress will enable tribal participation in a jointly financed, jointly managed solution for Inyo NF campgrounds and future issues of regional concern.

Successful utilization of the ESCOG JPA would include the ESCOG’s ability and capacity to deploy money to issues of regional concern. One-off projects (e.g., projects that use a bespoke structure or will not be replicated in other areas) are not within our vision of the ESCOG’s role.

7.2. Recommended Funding Opportunities

The previous section outlines several potential funding sources based on recreation, community development, economic development, and environmental outcomes. Quantified Ventures recommends pursuing the following:

Funding Opportunity	Lead Partner	Rationale
Economic Development Administration (EDA): Travel, Tourism & Outdoor Recreation	TBD via SRTI process	This one-time funding opportunity is one of a few sources that can be used for capacity building, which the ESCOG JPA will need to be a successful partner in this and future transactions.
Great American Outdoors Act (GAOA)	Inyo National Forest	GAOA funds can be used to fill some of the capital gap, showing partners that the Forest Service can bring resources to the table for prioritized projects.
Clean Water State Revolving Fund (CWSRF)	TBD based on construction roles	Moving campgrounds out of riparian areas and providing opportunities to appropriately deal with human waste have real water-quality benefits that the state may consider supporting through its SRF program. Public agencies would be best situated to take advantage of this opportunity, although California may allow conduit borrowing for private entities.
Infrastructure Bill	TBD based on funding opportunities	Although yet to be passed by the House, the Senate-passed bill would allocate significant funds for purposes well aligned with this project.
Securing commitments from local stakeholders	TBD based on stakeholders	Securing commitments from local stakeholders with discretionary tax revenue (e.g., towns, counties) could enable the Project Team to unlock additional funds either through financing off of those commitments or leveraging them as “matching” funds for grants.

7.3. Transaction Structuring

To design any kind of transaction, a working group will need to be assembled with the Inyo NF, current concessionaires, and gateway-community leaders to digest the findings of this Business Plan and discuss desired roles in a joint financing and/or joint implementation structure. The table below outlines various roles that the Project Team, concessionaire, and USFS could play:

	Scenario 1	Scenario 2	Scenario 3
Project Team	Raises \$ through grants, appropriations, and debt and transfers cash to USFS as part of partnership agreement	Raises \$ through grants, appropriations, and debt and contracts out campground improvements	Raises \$ through grants, appropriations, and debt and transfers cash to USFS as part of partnership agreement
Concessionaire	Raises \$ through reserves or loan and transfers cash to USFS as consolidated GT fee	Raises \$ through reserves or loan and transfers cash to USFS as consolidated GT fee	Raises \$ through reserves or loan and contracts out campground improvements under GT fee authority
USFS	Contracts out campground improvements	USFS transfers \$ to Project Team as part of partnership agreement	Contracts out campground improvements

The Project Team will also investigate pathways to lower the cost of capital for loans. For example, this could include a conduit issuer, whereby a third party would issue a bond and pass the funds through to the Project Team, allowing the Project Team to take advantage of the bond's lower interest rates. While this would lower the borrowing costs for a loan, a lender will likely need to already be secured in advance of any bond issuance.

<i>Role</i>	<i>Organization Notes</i>
<i>Funding and Financing</i>	
Accept and manage grant funding	<ul style="list-style-type: none"> • ESCOG JPA has authority and precedents • Individual ESCOG members have authority but not broader vision of JPA
Contribute project revenues	<ul style="list-style-type: none"> • Inyo NF can accept and manage GT fees from concessionaire • Concessionaire collects revenues from user fees • ESCOG JPA could potentially collect member fees if desired • If desired, individual ESCOG members could contribute tax revenues that can be used for financing or match funding
Channel appropriations	<ul style="list-style-type: none"> • Inyo NF can channel appropriations through GAOA • ESCOG JPA could potentially channel appropriations through state budget and grants if desired • If desired, individual ESCOG members could potentially channel appropriations through tax revenues (e.g., TOT, Measure U/R)
<i>Permitting</i>	
Compete for and operate Special Use Permit	<ul style="list-style-type: none"> • Concessionaire has demonstrated ability to compete for and operate SUP • ESCOG JPA does not have capacity and would need to subcontract operations
<i>Implementation</i>	
Collect and disburse disparate funds for construction	<ul style="list-style-type: none"> • Inyo NF has available mechanisms (contracts and partnership agreements), but lack of capacity may delay implementation • Concessionaires would need to follow federal contracting requirements • ESCOG JPA has authority, but would need to contract out the management of actual construction
Oversee construction management	<ul style="list-style-type: none"> • For Inyo NF, USFS oversight is necessary • Concessionaire can oversee management for improvements they own • ESCOG JPA would need to contract out construction management • Individual ESCOG members have expertise but lack capacity
Information sharing, coordination, and planning	<ul style="list-style-type: none"> • Capacity could be a constraint for Inyo NF, so the Forest should leverage partners such as ESSRP to the greatest possible extent • Planning and information sharing is also in line with the mission of the ESCOG JPA

8. Conclusion

The Inyo NF can deploy at least two strategies to finance improvements needed for their campgrounds and associated recreation opportunities. First, it can leverage the existing permit structure for the campgrounds in new ways to bring in upfront investment from the concessionaire. Second, it can seek to fill the remaining gap by leveraging the ESCOG JPA and ESSRP to allow stakeholders to collaboratively address issues of mutual concern, pool shared resources, and make themselves more competitive when applying for federal, state, or philanthropic funding.

This process has illuminated the conditions under which private financing can support recreation projects. Namely, the projects must provide a revenue source (either through established mechanisms or outcomes payments) that is secure enough for lenders to feel comfortable providing upfront capital. When a project moves beyond the transactional return-on-investment (ROI) analysis of an individual private actor and involves benefits to public agencies, a more collaborative structure is needed to manage contributions from individual members and go after bigger funding opportunities with a collective vision.

A blend of these strategies can be advantageous for several reasons. First, the transactional nature of working within the ROI for an individual project offers simplicity and more certainty. Second, this strategy can then serve as “match” for investment from other organizations, who often resist being the first or only actor. As the USFS looks to outside resources for true partnership to support recreation opportunities on public lands, it must consider and build new structures that accommodate the different priorities and perspectives of the land managers, industry actors, and local communities from whom it seeks investment. These collaborative structures offer an “exit ramp” from the status quo of insufficient funding, missed opportunities, and recreation assets that do not meet the needs of modern users.

Looking forward, next steps in a future scope of work to implement these pieces include:

- Build relationships with members of the ESCOG JPA and the local communities they represent
- Start a dialogue about the design and reasoning behind a financing structure
- Initiate project design work
- Invite stakeholders to inform design considerations (which types of campgrounds, how many, where, with which amenities)
- Explore new permit structure with Inyo NF regional and Washington office permitting staff

9. Appendix

9.1. Project Team

Quantified Ventures – Project Team

Quantified Ventures is an outcomes-based capital firm that designs, structures, and develops innovative financing approaches for projects that achieve social, environmental, economic, and health outcomes in line with local community priorities. We work with federal partners in rural communities to solve some of our most pressing challenges related to public lands, including deferred maintenance, underutilization of assets, over-demand in recreation, and wildfire risk. Several staff contributed to this project:

- **Todd Appel**, *Managing Director*
- **Seth Brown**, *Director*
- **Laura Drescher**, *Associate Director*
- **Matthew Carney**, *Senior Associate*

Mammoth Lakes Trails and Public Access Foundation (MLTPA) – Project Team

MLTPA's mission is to advocate for, initiate, facilitate, and participate in the planning, implementation, management, and stewardship of a four-season trail system in Mammoth Lakes and to improve the social, environmental, and economic impacts of recreation in the Eastern Sierra. MLTPA has played an instrumental role initiating and facilitating the ESSRP and the Sustainable Recreation and Tourism Initiative and was the applicant for IFNF funding for the Business Plan. Key Project Team members include:

- **John Wentworth**, *CEO*
- **Chelsea Taylor**, *Project Specialist*
- **Rita Keil**, *Project Specialist*
- **Andrew Mulford**, *GIS Manager*

Inyo National Forest – Project Team

The Inyo National Forest—directly, or indirectly through permits to a concessionaire—manages all 78 of the campgrounds within the Forest. Key Project Team members include:

- **Nora Gamino**, *Engineering and Minerals Staff Officer*
- **Adam Barnett**, *Public Services Staff Officer*
- **Sherry Reckler**, *Special Assistant to the Regional Forester, Pacific Southwest Region*
- **Leslie Yen**, *Forest Supervisor*

Concessionaires – Project Support

Campsites throughout the Inyo NF are managed through private concessionaire on a Special Use Permit. In 2021, California Land Management announced it was merging with fellow concessionaire Recreation Resource Management to create RRM-CLM Services. Therefore, staff from both firms contributed to the assumptions and articulation of the concessionaire perspective included in this assessment:

- **Eric Mart**, *California Land Management*
- **Warren Meyer**, *Recreation Resource Management*

9.2. Background Context

Historic Tribal Lands

Federally recognized American Indian and Alaska Native tribes (Indian tribes) have a unique legal relationship with the government of the United States. Tribal governments have jurisdictional powers that differ in many ways from those of state and local governments. Tribal authorities are defined by treaties, statutes, executive orders, court decisions, and the U.S. Constitution.

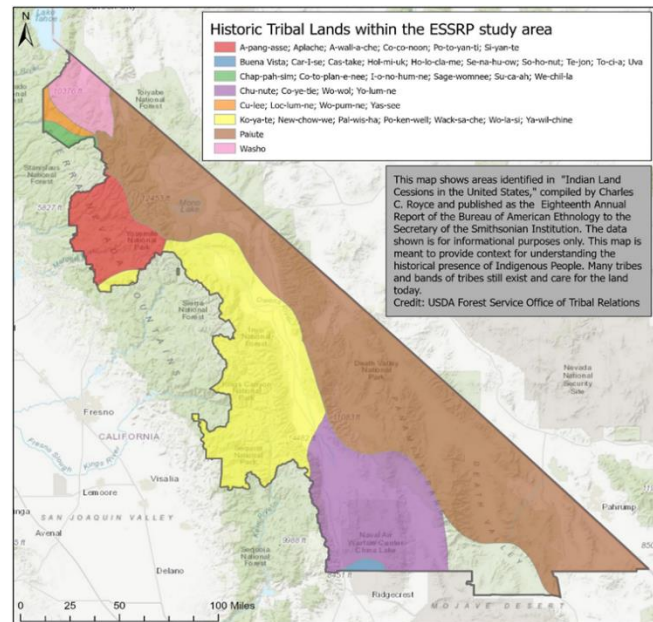
Indian tribes share the value of restoring, sustaining, and enhancing the nation's forests and grasslands, providing and sustaining benefits to the American people. In many cases, Indian tribes continue the traditional uses of the nation's forests and grasslands to sustain their cultural identity and continuity. The government's trust responsibilities and treaty obligations make it essential that the Forest Service engages with Indian tribes in timely and meaningful consultation on policies that may affect one or more Indian tribes (USDA Forest Service 2013).

The Inyo National Forest acknowledges that National Forest System lands and resources represent significant cultural and economic values to Native Americans.

The Forest is the traditional homeland of several Native American tribal communities and entities whose ancestors occupied the area at the time of first contact with Euro-American settlers, some 150 years ago. The Forest was traditionally occupied by the Mono Lake and Owens Valley Paiute in the north and the Panamint (Koso) Shoshone, the Kawaiisu, and the Tübatulabal in the south.

Traditional ecological knowledge and respect for the land and its resources have been handed down from generation to generation and remain fresh and largely intact among the present-day Paiute and Shoshone communities. With the passing of each generation, however, this knowledge is beginning to fade. Still, centuries of occupation and adaptation to the climate, landscape, and resources of the region have endowed the Indigenous Paiute and Shoshone with an intimate understanding of the land and a spiritual connection and sense of stewardship for their traditional homeland. This ancient connection with the land transcends time, changes in ownership, and shifts in political landscapes and land-management philosophies.

Most of the tribes in the area are currently organized into reservations and colonies that are sovereign, economically dynamic, self-governing, and



*Historic Tribal Lands in the Eastern Sierra
(Sourced from SRTI's "A Changing Climate:
Vulnerability in California's Eastern Sierra")*

fully integrated into the political and economic life of the region. Modern tribal entities are divided into those that are federally recognized or non-federally recognized. Federal recognition conveys special rights and status that affects the political and economic status of a tribe. Tribes that traditionally occupied geographic areas currently managed by the Inyo NF are acknowledged below.

**Federally recognized and non-recognized tribes that
traditionally occupied lands managed by the Inyo National Forest**

Federally Recognized Tribes	Non-Federally Recognized Tribes
<ul style="list-style-type: none"> • Big Pine Band of Owens Valley Paiute Shoshone Indians of the Big Pine Reservation • Bridgeport Paiute Indian Colony of California • Death Valley Timbi-Sha Shoshone Band of California • Fort Independence Community of Paiute Indians of the Fort Independence Reservation • Paiute-Shoshone Indians of the Bishop Community of the Bishop Colony • Paiute-Shoshone Indians of the Lone Pine Community of the Lone Pine Reservation • Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation • Walker River Paiute Tribe of the Walker River Reservation 	<ul style="list-style-type: none"> • Antelope Valley Indian Community • Kawaiisu Tribe • Kern Valley Indian Community • Mono Lake Kutzadika’a Tribe • Tübatulabals of Kern Valley • Yosemite-Mono Lake Paiute Indian Community

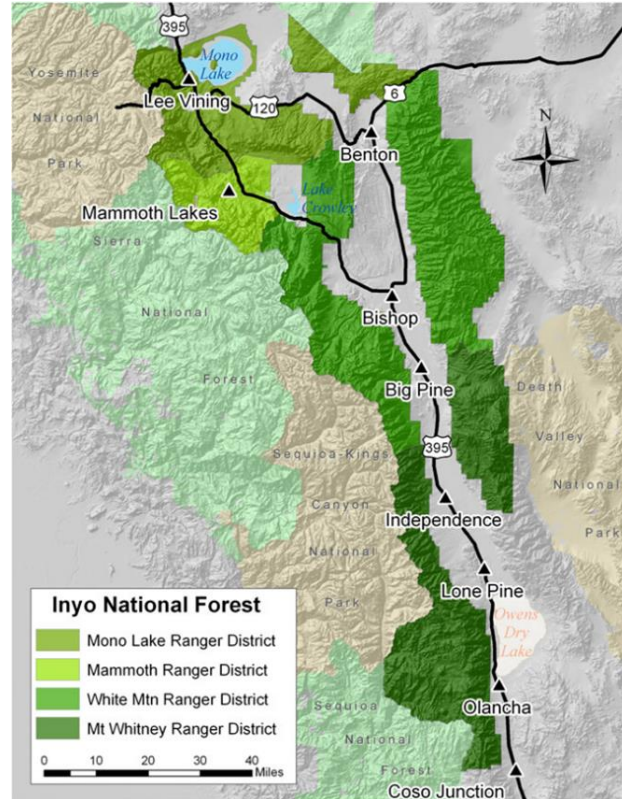
National Forest System lands are important to Indian tribes and individual practitioners of traditional lifeways for a variety of reasons. The Forest Service, among other federal land-management agencies, manages a diversity of landscapes, including many culturally important locations held sacred by Indian tribes. Federal lands also encompass a variety of traditional gathering areas in addition to trails that possess historical and cultural significance to certain Native Americans.

Takeaway: As original stewards and residents of this region, Tribes inherently should be part of any solution for it to be truly sustainable.

Inyo National Forest

The Inyo NF extends 165 miles along the California–Nevada border between Los Angeles and Reno. Established May 25, 1907, it includes more than 2 million acres of pristine lakes, winding streams, rugged Sierra Nevada peaks, and arid Great Basin mountains.⁴⁷

The Inyo NF provides camping, bicycling, boating, climbing, fishing, hiking, horse riding and camping, hunting, nature watching, OHV riding and camping, outdoor learning, water activities, winter sports, and 1,200-plus trail miles. It also contains approximately 1 million acres of wilderness, in nine wilderness areas. The Inyo NF hosts the highest peak in the 48 contiguous United States, Mount Whitney, which attracts campers and hikers from across the country. Recreation opportunities abound in the Eastern Sierra: there are 78 campgrounds on the Inyo NF, plus 15 campgrounds run by counties and other agencies (NPS, BLM), and more than 17 privately run campgrounds that are open in the summer months; some of these stay open year-round. Services range from tent camping to sites for RVs.⁴⁸



Map of Inyo National Forest

Takeaway: As the land manager for the campgrounds in question, the Inyo National Forest will be a critical partner in any solution.

⁴⁷ https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd904026.pdf

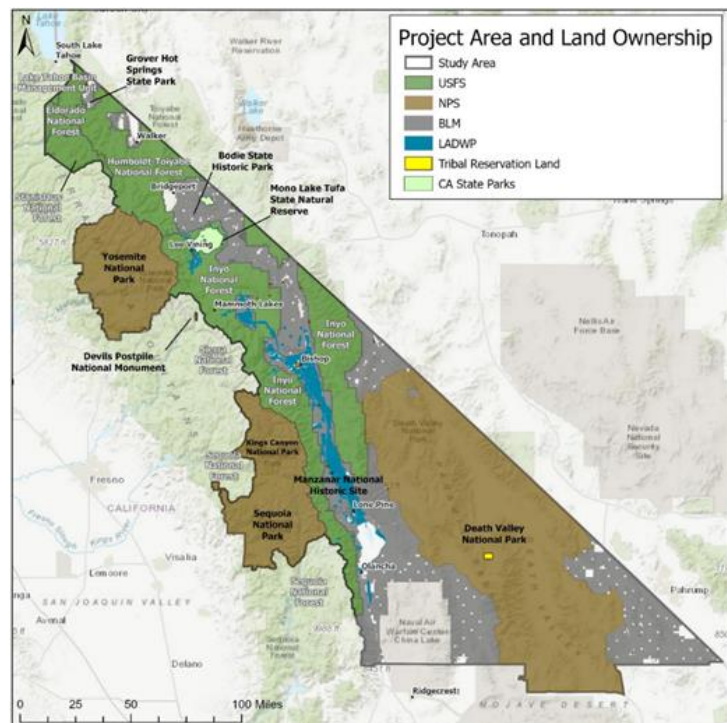
⁴⁸ <https://www.fs.usda.gov/recmain/inyo/recreation>

Eastern Sierra Region

The Inyo NF is one of many public recreation centers in the Eastern Sierra region, a high-desert landscape in California bordering Nevada. Composed of three California counties (Alpine, Mono, and Inyo), the region is defined by the Sierra Nevada range and home to about 35,000 residents. Unparalleled opportunities for outdoor recreation have compelled visitation to the region for many generations.

Annual visitor estimates range between 4 and 7 million across the region, 2.5 million of which visit the Inyo NF. Visitors come principally from Southern California, but from across the country and globe as well. As the Eastern Sierra Climate Vulnerability Assessment recognizes, visitation drives the region's recreation-based tourism economy and represents the primary challenge as well as the essential opportunity for achieving regional economic, social, and environmental sustainability.⁴⁹ That 2021 assessment estimated that ecosystem services provide \$100B of value on average to the region each year, of which recreation and tourism account for \$2.07B, with the Inyo NF specifically generating \$789M. Furthermore, it estimates that poor air quality, drought, extreme heat, and wildfires are projected to reduce the value of ecosystem services to the region by an average of \$270M per year. Thus, this challenge is not confined to the Inyo NF, but relevant for all land managers in the region, supporting the need for a replicable model to bring these partners together to fund and finance projects that address these issues at a regional scale.

More than 90% of the region is managed by federal government agencies, including the U.S. Forest Service, the National Park Service, and the Bureau of Land Management. The Los Angeles Department of Water and Power (LADWP) owns the majority of private property in the region, having acquired more than 450 square miles of farm and ranchland in the early years of the 20th century to secure water rights for the Los Angeles region.



Land Ownership in the Eastern Sierra

Takeaway: The Eastern Sierra region is a patchwork of land managed by various public agencies that offers incredible recreation experiences and is experiencing greater demand than its infrastructure, particularly on public lands, can handle.

⁴⁹ https://mltpa.org/images/downloads/703_02_AChangingClimate_2021-05-13_FINAL.pdf pg. ES-2

ESCOG and ESSRP

Because of the scope and complexity of these regional issues, stakeholders have formed two important collaborative groups: the Eastern Sierra Council of Governments (ESCOG) and the Eastern Sierra Sustainable Recreation Partnership (ESSRP).

Eastern Sierra Council of Governments (ESCOG)

The Eastern Sierra Council of Governments (ESCOG) includes four member agencies—Inyo County, Mono County, the City of Bishop, and the Town of Mammoth Lakes—and was originally formed in 1995 under a Joint Powers Agreement. In January 2020, the ESCOG reorganized itself as a Joint Powers Authority (ESCOG JPA), with the authority to “contract or otherwise participate in, and to accept grants, funds, or services from the state or federal government, their agencies or instrumentalities...in connection with any program judged by the ESCOG Board to be relevant to its purposes, and upon approval of the governing bodies of the Member Agencies.” All members have significant interests in sustainable recreation, with a strong sense of place and robust economic ties to travel and tourism. Mono and Inyo counties both operate campgrounds; in Inyo County, LADWP’s ownership of the land that hosts county campgrounds complicates management and investment in campground infrastructure. The Town of Mammoth Lakes’ budget and priorities reflect the central role recreation plays in the town’s economy; these are discussed in [Section 6](#).

In October 2020, the ESCOG approved by resolution the “ESCOG: Sustainable Recreation and Ecosystem Management Program (SREMP),” and by unanimous vote of the governing bodies of the four member agencies in January 2021, the SREMP became the ESCOG’s first authorized program. While the program has no dedicated funding or staff, its acceptance by all members allows the ESCOG to take advantage of funding opportunities to augment its capacity and implement projects or initiatives. For example, the ESCOG recently was awarded a \$3.3 million grant from the California Department of Fish and Wildlife to support a regionally staffed environmental planning team for the “Eastern Sierra Pace & Scale Accelerator,” which aims to double environmental planning capacity in the Eastern Sierra. The first landscape-scale forest restoration project funded by the CDFW grant will be on the Inyo NF. The “Eastern Sierra Climate & Communities Resilience Project,” a 55,000-acre forest restoration effort, is intended to protect the Town of Mammoth Lakes and the surrounding forest ecosystems from the effects of catastrophic wildfire. This work exemplifies the value that a regional structure like the ESCOG can bring to overcome the limited resources of a single entity and pull together partners in a holistic way.

Takeaway: The creation of the ESCOG and subsequent award of state grants to the ESCOG demonstrate both the region’s commitment to solving issues of regional concern and its capability to do so.

Eastern Sierra Sustainable Recreation Partnership (ESSRP)

The ESSRP, a recreation and tourism collaborative that is formalized through a U.S. Forest Service agreement, was initiated on July 18, 2017, at a joint meeting of the Mono County Board of Supervisors and the Mammoth Lakes Town Council and formalized under a USFS non-funded Challenge Cost-Share Agreement. Participating agencies now include: Indigenous tribes; Alpine County; the City of Bishop; Caltrans District 9; the Bureau of Land Management; the ESCOG JPA; Inyo County; the Town of Mammoth Lakes; Mono County; the National Park Service (multiple units); the Los Angeles Department of Water and Power; Inyo National Forest, Pacific Southwest Region (USFS Region 5); and Humboldt-Toiyabe National Forest, Intermountain Region (USFS Region 4). The ESSRP facilitates coordination and communication among land managers in the Eastern Sierra around common recreation issues.

In the spring of 2019, the Sierra Nevada Conservancy's Governing Board demonstrated a pioneering commitment to rural California's outdoor recreation economy and natural resources by authorizing \$618,750 of Proposition 68 funding to go to the Town of Mammoth Lakes on behalf of the ESSRP to administer the Sustainable Recreation and Tourism Initiative (SRTI). The SRTI has gathered input from regional recreation stakeholders on project ideas and is actively working with the ESSRP partners to identify a desired portfolio of projects for funding and implementation. The SRTI's scope of work through the end of calendar year 2021 includes targeted grant application support for eight projects that the partners have agreed to advance.

The SRTI produced the aforementioned "A Changing Climate" report, which values ecosystem services and recreation economy benefits of the Eastern Sierra region and documents their vulnerability to climate change. The assessment is used and referenced throughout this business plan to quantify the value of recreation and camping on the Inyo NF and to consider the benefits and avoided costs as a result of investment in campground infrastructure.

Takeaway: The ESSRP has done a tremendous amount of work to document public support for sustainable recreation and to identify specific projects that public officials could pursue, either individually or jointly through the ESCOG.

State of California: Shared Stewardship Agreement

In August 2020, the State of California entered into a Shared Stewardship Agreement with the Pacific Southwest Region of the U.S. Forest Service specifically targeting California rangelands and forests. This Shared Stewardship Agreement reflects a growing understanding among land managers and neighbors that individual agencies need to share resources and collaborate to preserve the natural resources of the region. The agreement outlines several actions the parties will take together, including vegetation treatments, support for and expansion of related infrastructure, and joint planning. The parties commit to improving access to sustainable recreation; this action reflects California’s particular focus on access and equity as it relates to recreation.

Takeaway: The U.S. Forest Service’s Shared Stewardship Agreement with the State of California demonstrates regional understanding of the need for partnerships.

CALREC Vision

To address the unique challenges in California for sustainable recreation, MLTPA sponsored the CALREC Vision effort and, with input from an advisory board of federal, state, and regional partners, produced [“CALREC Vision: Cross-Jurisdictional Collaboration to Advance Sustainable Outdoor Recreation in California.”](#) The document highlights the multifaceted value sustainable recreation creates within the state and makes the case for cross-jurisdictional and cross-functional collaboration among partners. This document also notes the need for greater equity, acknowledging that some Californians have encountered systemic institutional and cultural barriers to enjoying the state’s outdoor recreation resources. MLTPA is leading the next phase of CALREC Vision through an agreement with [California’s Wildfire and Forest Resilience Task Force](#), where federal and state agencies commit to taking and tracking actions to increase the state’s resilience to increasing wildfire severity. CALREC Vision provides a road map for implementing the Shared Stewardship Agreement between California and the U.S. Forest Service. The growing demand for recreation, coupled with the lack of resources to support requisite infrastructure such as campgrounds, could justify a similar collaborative, action-oriented task force.

Takeaway: Implementation of this Business Plan aligns with the concepts outlined in CALREC Vision.

9.3. Site Selection Process

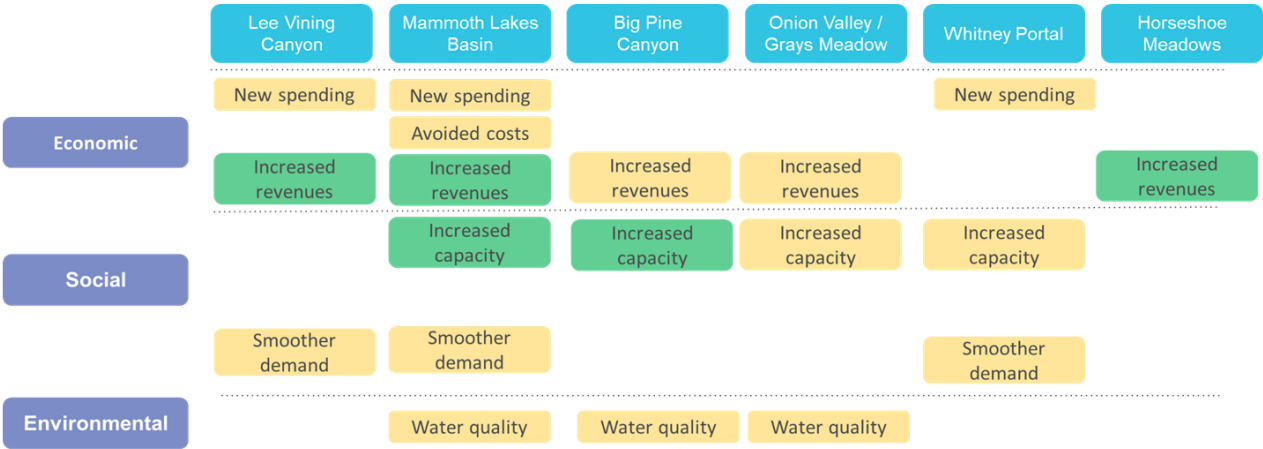
When Quantified Ventures and MLTPA began this work with the Inyo NF, the scope included all 78 campgrounds located on the Forest and lacked specificity for which improvements were needed within these campgrounds. Due to the need for more-focused projects where impact could be better estimated, and because determining the problems and solutions for 78 campgrounds within the given timeframe was infeasible, Quantified Ventures led the team through a process to home in on areas of focus so that the team could talk with more specificity about the types of improvements needed there and could solicit input from stakeholders in a more focused way.

Quantified Ventures went about identifying priority areas of focus in several ways. First, we designed a survey that was distributed to district rangers and other Inyo NF recreation staff. The survey included all 78 campgrounds and covered questions around water-management issues, issues with other infrastructure, problems with campground design, equity concerns, and issues around health, safety, and the environment. We used the survey results in conjunction with a workshop that led Inyo NF staff through a process of identifying problem buckets, specifying which solution types could address those problems (e.g., moving the campground, closing the campground, conducting deferred maintenance, etc.), and placing those solutions within a benefit-to-cost context.

We then sought workshop participants' input on impacts from these solutions across six categories: revenue, cost savings, social, regional economy, environment, and health and safety. We also facilitated a stakeholder mapping session. While engagement of stakeholders was limited due to the lack of designs or more project specifics, as well as travel and gathering restrictions related to the COVID-19 pandemic, this map will be helpful as we consider partners in transaction structuring.

The survey and the workshop were invaluable not only in the amount of data they generated, but also in the sense of place and priority the Inyo NF staff conveyed to the Quantified Ventures team. Using these themes, we built a prioritization framework to further score campgrounds and identify specific targets: conducting the workshop demonstrated that attempting to look comprehensively across all 78 campgrounds would be difficult. While the prioritization analysis identified specific campgrounds, through group discussion the team determined to focus on several areas rather than specific campgrounds, because often solutions for one campground impact others in the surrounding area (e.g., closing one campground may necessitate adding capacity to ones around it to adequately manage demand). This discussion resulted in the six geographic areas specified in [Section 4](#).

9.4. Summary of Economic, Social, and Environmental Benefits by Campground



KEY: ● Sizeable impact ● More information forthcoming from design (Blank) No anticipated impact

Economic Benefits	Social Benefits	Environmental Benefits
<ul style="list-style-type: none"> • Increased spending in local communities due to improved connectivity • Increased revenues (higher fees, more capacity, higher utilization) • Avoided costs due to addressing maintenance issues, changing camper behavior, and proactively addressing projected impacts from climate change 	<ul style="list-style-type: none"> • Increased regional capacity to handle anticipated high demand for camping opportunities • Smoother demand at popular sites 	<ul style="list-style-type: none"> • Improved water quality due to capturing of dispersed campers and relocation of campgrounds outside of riparian area

9.5. Explanation of Granger-Thye Permits on the Inyo NF

Campsites on the Inyo NF are administered through Special Use Permits (SUP). A special-use authorization is a “legal document such as a permit, temporary permit, term permit, lease, or easement, which allows occupancy, use, rights, or privileges of National Forest Service land.” Different permit authorities have different standards for length of permit, ownership of assets, and fee structures. The two primary permit types considered for sites on the Inyo NF are Granger-Thye and Term permits. Currently, campsites on the Inyo NF are managed by RRM-CLM on a Granger-Thye SUP.

<i>Permit Comparison</i>	Granger-Thye	Term Permit
<i>Example Site</i>	Campsite	Ski lodge
<i>Typical Length</i>	5 to 10 years	20+ years
<i>Ownership</i>	New facilities owned by USFS	New facilities owned by concessionaire
<i>Payment to USFS</i>	% of revenue	Formula based on land value
<i>USFS Fee Usage</i>	Fees used for Maintenance, Reconditioning, Renovation, or Improvement (MRRRI)	Flexible

For permits under Granger-Thye, concessionaires pay the USFS a previously agreed-upon percentage of revenue each year. Concessionaires may also propose a consolidated land-use fee—a certain number of years’ worth of fees, paid at the beginning of the permit. These consolidated fees, sometimes called advance Granger-Thye fee offset payments, are used for government Maintenance, Reconditioning, Renovation, or Improvement (MRRRI). There are multiple considerations that a concessionaire and the USFS must keep in mind when deciding on the optimal permit structure for a site.

<i>Considerations</i>	USFS	Concessionaire
<i>Length</i>	Shorter permit time frames enable the USFS to renegotiate more frequently and protect against long-term concessionaire non-compliance.	Long-term permits provide planning stability, enable concessionaires to take on debt to fund improvements, and allow for longer revenue streams to improve ROI.
<i>Annual Fees to USFS</i>	Higher fees improve the USFS’s ability to provide for maintenance improvements.	Higher fees decrease operational profitability.
<i>Consolidated Fees</i>	Replacing annual fees with an upfront consolidated fee can help address immediate priorities.	Trade-off between higher upfront costs and annual margins. Consolidated fee is based off historical revenues, so may be more attractive if future revenues are expected to be higher.

9.6. Profitability Analysis Definitions

Basic Campground: A basic campground is defined as a set of campsites that provide space for campers to set up tents and park near their campsite. Sites may include a fire ring and/or picnic table, and campgrounds may have a central bathroom or spouts for potable water. These campgrounds are comfortable for campers of varying experience, but do require some equipment (tents, sleeping bags, etc.).

Walk-in Campground: A walk-in campground provides dedicated space for campers to set up tents, but parking is not co-located with the campsite. These sites are often less developed than basic campgrounds and may not include the amenities of a basic campsite (fire ring, picnic table, central bathroom, or spouts for potable water). These campgrounds are comfortable for backpackers at ease in the elements and experienced at packing, carrying, and setting up their own equipment.

Group Campground: A group campground provides dedicated space for a large group (several families, organizations, etc.) to set up tents with co-located parking. Sites may include a fire ring and/or picnic table, and campgrounds may have a central bathroom or spouts for potable water. These campgrounds are comfortable for campers of varying experience, but do require some equipment (tents, sleeping bags, etc.).

RV Campground: A RV campground provides amenities specific for RVs, including water and sewer hookups, internet, and larger parking pads to accommodate these vehicles. Many campgrounds on the Inyo NF were designed before RVs became popular and thus do not include these amenities, though many visitors bring their RVs to basic campgrounds.

Simple Cabin: A simple cabin provides a built shelter for campers with some limited amenities inside and outside (e.g., platforms on which to set up sleeping bags, fire rings, etc.). Cabins grouped together may have shared amenities, such as a bathhouse or picnic area. The Inyo NF does not currently have any simple cabins.

Premium Cabin: A premium cabin, such as a hut or yurt, provides a built shelter for campers with more amenities, such as electricity and running water, ideal for campers with limited equipment and experience. Cabins grouped together may have shared amenities, such as a bathhouse or picnic area. The Inyo NF does not currently have any premium cabins.

Operating Margin (per night): The difference between operating costs and daily revenues. A redesign that provides a higher operating margin will increase profitability, which could cover debt service.

Operating Margin (percentage): The difference between operating costs and daily revenues as a percent of daily revenues. A higher operating margin percentage means that for every dollar that comes in, an operator is able to keep more of that dollar (as opposed to spending it on operations costs). This metric also indicates the amount of buffer available in our key assumptions; a high operating margin with a low operating margin percentage is a less secure investment.

Internal Rate of Return (IRR): A metric used to estimate the profitability of a project. IRR is displayed as an annualized rate of return that makes the net present value equal to zero in a discounted cash flow analysis. This metric will help determine the profitability of the project, but must be evaluated in relation to the cost of capital. For example, if an individual expects a return annually of 3%, but their discount rate (which reflects the opportunity cost of investing today) is 5%, the net present value will be negative.

Years to Break Even (discounted): The number of years a project takes to recoup the initial investment—the sum of total profits while taking into account the timing of cash flows. Years to break even is driven by the selected discount rate (5% in this analysis). This metric is key to understanding how long a project must be in operation until the operator starts gaining a return, which will drive negotiation of permit length. Additionally, projects that may have a high operating margin and high operating margin percentage may have a long payback period if the initial capital investment is very high relative to the operating margin.

Net Present Value (NPV): The value of future discounted cash flows, adjusted for the timing of these cash flows based on cost of borrowing. Once the cost of borrowing is known, an NPV analysis can be conducted to determine if the NPV is above zero (which speaks favorably of the project).

Benefit-to-Cost Ratio (discounted): The sum of the discounted cash in over the sum of the discounted cash out. This metric, like NPV and years to break even, is highly dependent on the discount rate used. A BCR above 1 indicates a favorable investment in relation to your discount rate.

Discount Rate: A discount rate is used to estimate the present value of projected future cash flows. Based on the concept of the [time-value of money](#), receiving money today is more valuable than receiving the same amount in the future because it avoids opportunity costs and potential risks. Risky projects have higher discount rates to account for the fact that the projected future cash flows are uncertain, whereas safer projects have lower discount rates. This analysis uses a relatively low-risk discount rate of 5%. The cost of private capital typically hovers around 7%, while low-risk bonds are closer to 3%. Our 5% discount rate is meant to split the difference between these poles.