



— BUREAU OF —
RECLAMATION

Long Range Transportation Plan

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Executive Summary

With this document, the Bureau of Reclamation (Reclamation) is pleased to present its first National Long Range Transportation Plan (LRTP). Transportation systems play a critical role toward fulfilling Reclamation's mission to manage water in the West and provide the public with recreational opportunities. Therefore, this National LRTP establishes goals and objectives for how Reclamation will manage its transportation system in support of its mission. Reclamation was included in the Federal Lands Transportation Program (FLTP) with the 2016 passage of the Fixing America's Surface Transportation (FAST) Act. This plan identifies Reclamation's long-term transportation needs related to achieving its transportation goals. In its first 5 years in the FLTP, Reclamation began parking lot and road inventory programs, started analyses of roadways that need safety improvements, launched a new bridge inventory application, funded 35 transportation projects, and deployed a Reclamation-wide needs assessment to begin tracking current and future transportation needs. With the completion of this National LRTP, Reclamation has outlined a 20-year vision to continue the success of the first 5 years, maintain its transportation system, and provide and expand recreational access on and around Reclamation waters and lands.

To establish baseline conditions with a focus on project needs, this plan uses the system-wide Transportation Needs Assessment conducted in 2018 and 2019 as its foundation. Building upon this initial snapshot, Reclamation continues to develop transportation condition inventories and management systems that will add more clarity to the future needs of its transportation system. As most visitors to Reclamation sites continue to come by private vehicle, the majority of need centers around maintaining roads, bridges, and parking lots, as well as addressing safety concerns. At the same time, visitor recreation at Reclamation sites continues to grow, which will create future challenges with traffic congestion and access. As Reclamation continues to address needs on its core assets, it will also look to prioritize some funding on projects that expand transportation options and enhance the visitor's experience at its high-use recreation sites.

To address the identified project needs, this plan takes a strategic look at differing funding outlooks. This will help guide investment decisions and evaluate trade-offs between the tough choices that will have to be made due to the reality that total need is significantly larger than projected funding. In response to these challenges, the plan includes investment focus areas and strategies Reclamation can use to prioritize funding and maximize the improvement value of the projects selected. Using the investment focus areas as guidance will help Reclamation choose projects that address priority needs based on funds available.

Using Reclamation's FLTP funding to leverage other funding available to Reclamation or its partners will be crucial to address more transportation needs. A key component of how Reclamation manages public recreation access is the use of managing partners. Most of Reclamation's recreation areas have been developed and managed in partnership with state, county, or local governments that have entered into long-term management agreements with Reclamation. These partnerships position Reclamation, its managing partners, and surrounding regional communities well to compete for multiple transportation funding sources.

This inaugural National LRTP was developed in collaboration with Reclamation's six regions and the Federal Highway Administration (FHWA), Central Federal Lands Highway Division. Reclamation looks forward to continually working with its regions, FHWA, other Federal Land Management Agencies (FLMAs) that receive FLTP funding, and its many managing partners to advance and implement this plan.

Acronyms

AMD	Asset Management Division	MR&R	Major Rehabilitation and Replacement
BLM	Bureau of Land Management	MVA	Motor Vehicle Accidents
Caltrans	California Department of Transportation	NBI	National Bridge Inventory
DOI	Department of the Interior	NBIS	National Bridge Inspection Standards
DOT	Department of Transportation	NPS	National Park Service
FARS	Fatality Analysis Reporting System	PPP	Pavement Preservation Program
FAST	Fixing America's Surface Transportation	RIP	Road Inventory Program
FHWA	Federal Highway Administration	SMIS	Safety Management Information System
FLAP	Federal Lands Access Program	USACE	U.S. Army Corps of Engineers
FLH	Office of Federal Lands Highway	USC	United States Code
FLMA	Federal Land Management Agency	USFS	U.S. Forest Service
FLPP	Federal Lands Planning Program		
FLTP	Federal Lands Transportation Program		
FWS	U.S. Fish and Wildlife Service		
LRTP	Long Range Transportation Plan		
MPO	Metropolitan Planning Organization		

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Lake Pueblo State Park, Colorado Federal Lands Access Program improvements.
(FHWA-Central Federal Lands Highway Division/James Herlyck)

Chapter 1: Introduction

The Bureau of Reclamation's (Reclamation) mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. Established in 1902, Reclamation is best known for managing the dams, power plants, pipelines, and canals constructed in the 17 western states. These water and power projects led to homesteading and promoted the economic and social development of the West.

Reclamation is made up of six regions (Figure 1), the boundaries of which align with the newly classified Department of the Interior (DOI) 2018 Unified Regional Boundaries. Reclamation stewards approximately 67 percent, by value, of all DOI real property assets (buildings and structures constructed by DOI). From dams and irrigation facilities to hydropower generation and distribution, Reclamation's assets are a vital part of the Nation's economy, safety, and security. In addition, much of the 6.5 million acres of Reclamation-owned or managed land and water offer public recreation opportunities, serving millions of visitors annually.

Reclamation Assests

Transportation systems play a critical role in fulfilling Reclamation's mission to manage water in the West and provide the public with opportunities to recreate in these areas. Reclamation has a wide variety of transportation facilities that are included in the National Federal Lands Transportation Facility Inventory such as roads, bridges, trails, parking lots, and boat ramps. Reclamation's inventories include over 2,800 miles of Reclamation-owned public roads, over 300 Reclamation-owned public vehicle bridges (also included on the National Bridge Inventory), over 1,300 miles of public trails, and 450 boat ramps with associated parking areas.

Recreation and Transportation

Current legislation limits the number of locations where developed recreation may be directly managed by Reclamation. Without specific authority, Reclamation is limited by the Federal Water Project Recreation

Act of 1965, Public Law 89-72 to providing only "minimum basic" facilities. Pursuant to Public Law 89-72, minimum basic facilities are defined as guardrails, turnarounds at the ends of existing roads, and pit toilets necessary to protect the health and safety of the public. Reclamation has further defined minimum basic facilities as those facilities required for public health and safety and/or that are necessary to protect or preserve federal property and the public. Therefore, Reclamation partners with state and local agencies to provide developed public recreation opportunities and dedicated Wildlife Management Areas on Reclamation lands.

This approach has resulted in over 240 developed recreation areas that draw over 44 million visits annually. Opportunities facilitated by these areas include camping, horseback riding, interpretive education, boating, and water play among a multitude of others. Wildlife Management Areas are set aside to benefit wildlife. They have limited amenities and provide a natural setting for hunting, fishing, and wildlife photography. In addition, dispersed recreational opportunities are available at most reservoirs. Maintaining transportation systems to these opportunities are vital to support public recreation and spur economic growth in local communities.

Reclamation was included in the Federal Lands Transportation Program (FLTP) as a competing partner in Fiscal Year (FY) 2016 with the passage of the Fixing America's Surface Transportation (FAST) Act. Before the FAST Act, Reclamation received a small amount of federal transportation funding for bridge inspections.

During its first 5 years in the FLTP, Reclamation began parking lot and road inventory programs, started analyses of roadways that needed safety improvements, funded 35 transportation projects, and deployed a Reclamation-wide needs assessment to begin tracking current and future transportation needs. In 2018, Reclamation also launched a new Reclamation Bridge Inventory application that allows Reclamation to digitally store bridge geospatial data, tabular data, and bridge files all in one location. This application will assist Reclamation with the management of over 7,000 bridge structures including Reclamation-owned bridges (public and non-public) and non-Reclamation-owned bridges that cross Reclamation facilities.

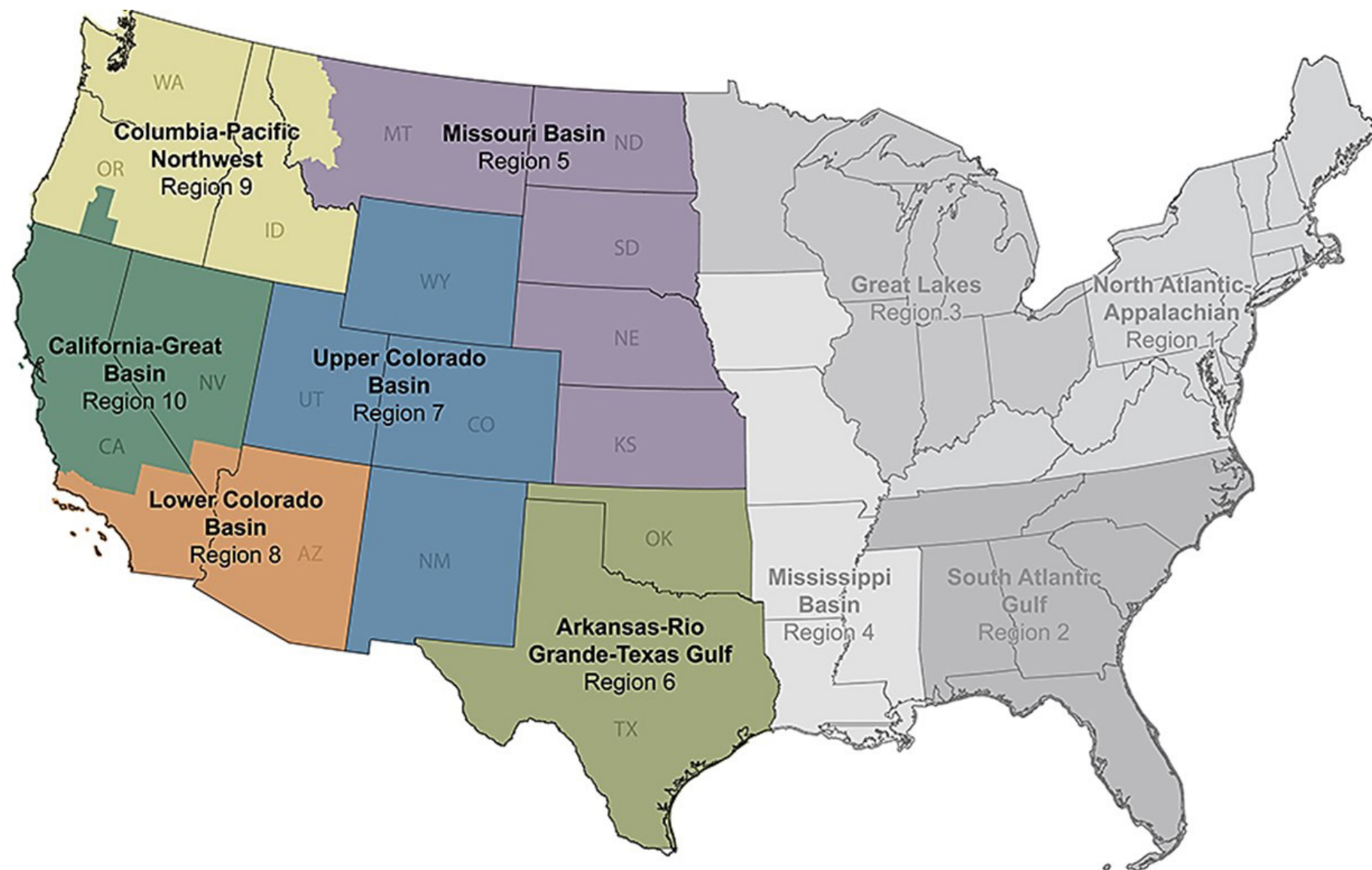


Figure 1. Bureau of Reclamation regions: Reclamation lands are only located in the 17 western states, meaning that Reclamation is present in only 6 of the Department of the Interior Unified Regions.

Reclamation's first National Long Range Transportation Plan (LRTP) builds on this work to establish a strategic framework for transportation investments Reclamation-wide over the next 20 years. It outlines goals that tie together Reclamation's mission and the role transportation plays in that mission. It provides an initial snapshot of Reclamation's system-wide transportation needs, outlines future funding possibilities, and identifies how Reclamation can invest to meet its needs and mission. The LRTP focuses on publicly accessible facilities (roads, bridges, parking lots, trails), but also considers some administrative facilities where data are available.¹

Development of the Long Range Transportation Plan

Development of the LRTP included outreach to Reclamation's six regions to identify plan goals and catalogue transportation needs. It also included ongoing coordination with the Office of Federal Lands Highway (FLH) to ensure the LRTP met federal legislative requirements. Federal surface transportation legislation, as reauthorized in the FAST Act, requires federal land management agencies, such as Reclamation, to develop LRTPs that are consistent with the planning processes required of state departments of transportation (DOTs) and metropolitan planning organizations (MPOs) (23 United States Code [USC] §201; 23 USC §134 and §135²). This LRTP is consistent with those processes and legal requirements.

Development of the LRTP included the elements described in the following sections.

¹ LRTPs are required for use of Title 23 funds. These funds can only be used on publicly accessible facilities.

² The full text of Title 23, United States Code is located at: <https://www.fhwa.dot.gov/legregs/title23.pdf>. Provisions specific to Sec. 201 and Transportation Planning are located on page 174.

Develop Goals and Objectives

Reclamation worked with staff from its six regions to develop transportation goals and objectives that collectively are Reclamation's vision for the next 20 years. Development of the goals and objectives included consideration for Reclamation's mission, the investment strategies that guide the FLTP, and [Reclamation's Strategic Asset Management Plan](#) completed in 2020. Through implementation of the LRTP, the goals and objectives will be tied to performance measures that Reclamation will monitor to see how well the goals of the LRTP are being met.

Identify Existing Conditions and Future Transportation Needs

This first LRTP focuses on an extensive transportation needs assessment deployed to all six regions. The assessment asked regions to use an ArcGIS online web map to enter transportation needs including project location, project type, estimated cost range, and region priority of projects. FLH worked with the regions to refine and further fill out the needs assessment. This resulted in identifying over 350 transportation needs Reclamation-wide.

The existing condition summary also used crash history data available in the [Fatality Analysis Report System Crashes on Federal Lands Tool](#), bridge condition information reported to the [National Bridge Inventory Database](#), road condition information available from Reclamation's Cycle 1 Road Inventory, large project needs identified in Reclamation's Major Rehabilitation and Replacement (MR&R) system, and estimates related to trail maintenance and planning needs.

Reclamation is still in the process of completing the Cycle 1 Road Inventory condition assessments. It is anticipated that this inventory, along with additional safety management system development, will be completed in the next 2 years. The information gathered will contribute substantially when identifying additional existing conditions and future transportation needs at Reclamation sites. This new information will be included in future LRTP updates.

Outline Investment Strategy

The 2018-2019 Transportation Needs Assessment, along with analysis of additional need identified through ongoing data collection efforts, helped to develop a first cut of Reclamation's projected need over the next 10 years. FLH developed conservative projections about future FLTP funding levels and observed historical patterns of funding investment in transportation from Reclamation and other federal transportation programs to identify future funding availability scenarios. All this information was used to estimate transportation funding gaps and outline investment strategies Reclamation may use to meet its transportation need.

Adopt Plan and Conduct Outreach

Drafts of the LRTP were shared with Reclamation, FLH, and the U.S. Department of Transportation Volpe Center staff to gather input and ensure the document met the intent of Reclamation and transportation legislative requirements.

This final LRTP will become a tool for Reclamation to conduct outreach with existing and potential partners on transportation needs and projects of mutual priority. Reclamation has a directive from Congress to coordinate recreation use at its water projects with existing or planned federal, state, and local public recreation projects.¹ Where possible, this also means Reclamation seeks qualified government entities to manage recreation use at water projects. Typically, these entities are non-federal. This unique partnership means Reclamation and its managing partners are often in a position to compete for or leverage a variety of transportation funds available to both federal and non-federal entities.

¹ Authorization and Adjustment Act of 1992, Public Law 102-575, 106 Stat. 4690, Title XXVIII (Reclamation Recreation Management Act). See <https://www.usbr.gov/recreation/legislation.html> for further information on this law. A 2019 list of non-federal managing partners is located at: <https://www.usbr.gov/recreation/partners.html>.

By outlining goals, needs, and investment priorities in this LRTP, Reclamation will be able to conduct outreach with managing partners, identify projects of mutual need, and strategize how to best move forward with funding these transportation needs.

Plan Implementation

In order to better link the 20-year planning horizon of this LRTP to the shorter-term project needs that support Reclamation's long-term goals and objectives, a 10-year implementation strategy has been developed and is the focus of Chapter 6. Recognizing that the transportation needs assessment was just a snapshot in time, it was important to develop a strategy that attempts to address as many of those needs as possible for the next 10 years while simultaneously anticipating yet-to-be-identified needs that must also be taken into account over the next 20 years. Therefore, this LRTP establishes Reclamation's transportation vision for how it plans to meet its need over the next 20 years, while the implementation strategy focuses on different project delivery options over the next 10 years.

Regardless of the timeframe being considered (10 or 20 years), Reclamation's transportation needs will far outweigh available funding. Therefore, the implementation of this plan will rely on coordination and outreach with partners and stakeholders. Reclamation's outreach will focus on sharing transportation priorities and needs with partners, stakeholders, and state and local transportation agencies. The purpose will be to promote ongoing dialogue and coordination in efforts to identify projects of mutual need and to move such projects forward for consideration of transportation funding.



Boysen Dam, Wyoming access roadway improvements.
(FHWA-Central Federal Lands Highway Division/Jerry Walter)

Chapter 2: Goals and Objectives

Reclamation has identified four transportation goal areas, each with supporting objectives that outline the desired condition Reclamation hopes to achieve in its transportation system over the next 20 years. Each goal has objectives that provide actionable steps Reclamation will work toward to achieve the desired outcomes of the goals.

Goal 1. System Preservation



Provide a sustainable transportation program to address current and future needs.

Objective 1:

Maintain transportation access to critical Reclamation infrastructure features and recreation opportunities at appropriate condition levels.

Objective 2:

Ensure that Reclamation lands have appropriate levels of access, mobility, and connectivity for all users and staff.

Goal 2. Safety



Provide a safe and reliable transportation system to and within Reclamation lands.

Objective 1:

Use the best available data to identify safety issues on Reclamation's transportation system and other transportation systems that connect to Reclamation lands.

Objective 2:

Identify and implement appropriate countermeasures and tools to resolve safety issues and reduce the potential frequency and severity of incidents.

Goal 3. Economic Generation



Develop and maintain a transportation network that is suitable for all functions that operate on and support Reclamation lands.

Objective 1:

Manage the transportation network to support Reclamation's many purposes including water delivery, power generation, recreation, environment enhancement, and others.

Objective 2:

Identify the appropriate transportation network to support Reclamation's desired level of recreation visitor access at each project site.

Goal 4. Partnerships



Develop partnerships to leverage resources and implement integrated transportation solutions.

Objective 1:

Build awareness and coordination amongst Reclamation partners to identify areas of mutual transportation need and develop solutions to address these needs.



Hoover Dam roadways and parking lots on Arizona side. Visitor parking structure and Visitor Center located on hillside in back left of photo.
(FHWA-Central Federal Lands Highway Division)

Chapter 3: Existing Conditions and Future Need

Understanding the current state of Reclamation's transportation system is key to long range transportation planning. This LRTP documents known existing conditions of Reclamation's transportation system. This LRTP also summarizes future needs as identified by Reclamation's regions. The existing conditions, trends, and future needs summarized in this chapter inform Reclamation's first assessment of projected transportation need. They also establish a baseline against which Reclamation can develop performance measures and monitor progress toward meeting transportation goals and needs.

Data Sources and Organization of Existing Conditions

This chapter presents Reclamation data on roads, bridges, recreation, partnerships, and trails, as well as information gathered through the 2018-2019 Transportation Needs Assessment. The descriptions of existing conditions and future need presented in this chapter are organized around the goal areas defined in the previous chapter: System Preservation, Safety, Economic Generation, and Partnerships. This organization allows Reclamation to see how the current state of the transportation system relates to its goals. It can also help Reclamation identify what other data in the future might be useful to better inform the state of transportation goals.

Additional data and analysis, forthcoming from the Road Inventory Program and the Safety Management Information System, will expand the understanding of baseline existing conditions and need relative to system preservation and safety. As such, the contents of this chapter will likely change significantly when Reclamation updates the LRTP in five years.

2018-2019 Transportation Needs Assessment

Reclamation conducted a transportation needs assessment with the regions in 2018 and 2019 by deploying an online ArcGIS tool. The tool allowed representatives from each region to draw polygons at or near the location of a transportation project need. Regions were asked to consider needs as far out as 20 years, both inside and outside Reclamation's boundaries. They were asked to consider needs on roads, bridges, trails, parking lots, boat ramps, and culverts, regardless if the facilities were publicly accessible or only used administratively. However, almost all the needs entered were on publicly accessible facilities. The regions were asked to consider capital improvements, maintenance needs, planning needs, and operations needs. For each need entered, the region was asked to populate project details about the anticipated need or project, assign the need a priority, and answer questions about the need as it related to LRTP goal areas. Reclamation's MR&R needs for transportation facilities were also pre-populated into the tool.

Appendix A includes the guide provided to the regions. This guide includes details of all the questions that were asked for each need entered, the options regions could choose, and guidance on selecting those options. Appendix B includes several summary tables from the assessment database, which were used to inform the existing conditions in this chapter. This refinement included completing or adding information for incomplete entries, confirming project descriptions and priorities, and in some cases adding or removing a few needs.

Ultimately, 354 transportation needs were gathered across the six Reclamation regions.¹ Reclamation and FLH summarized the data both at national and regional levels. National level summaries are presented in this chapter while regional level summaries for all six regions are included in Appendices C through H.

¹ Sixty-six needs were identified as being at locations that only allow administrative use. Funding options for these needs will be different than for needs at sites allowing public access. However, all transportation needs are considered and summarized in this chapter to provide a comprehensive picture of Reclamation conditions.

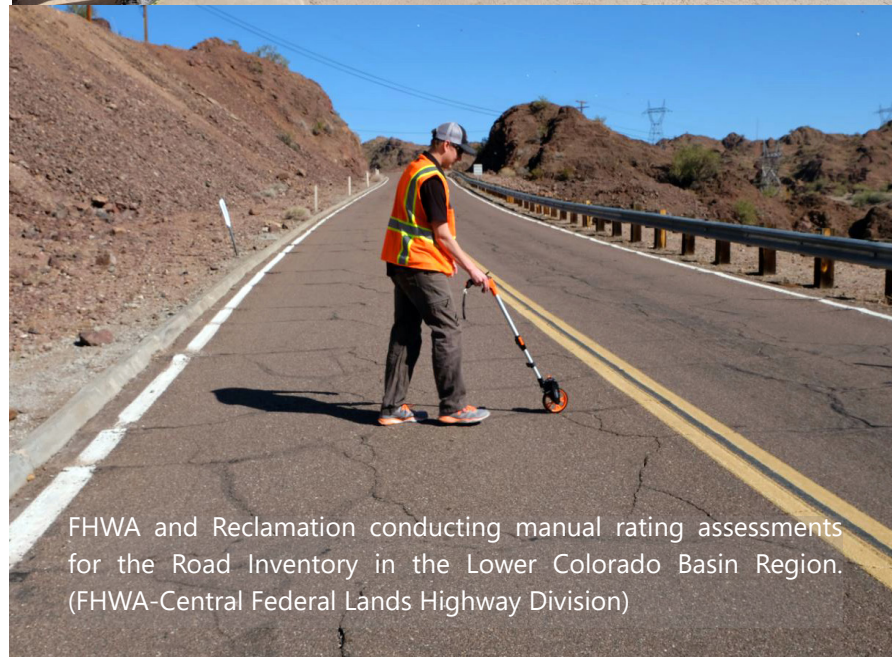
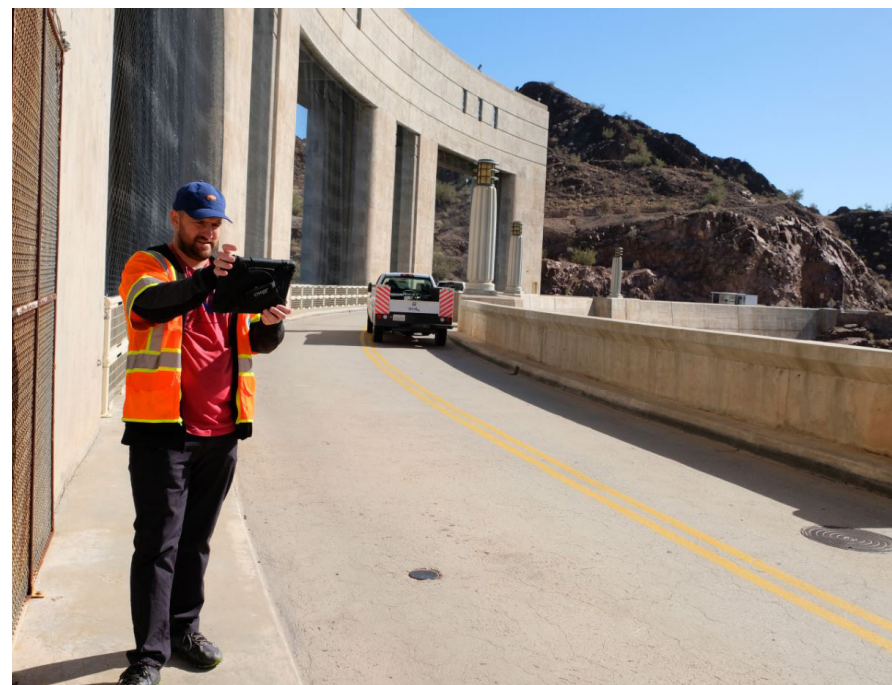
Existing Conditions: System Preservation

Road Inventory

Reclamation's road inventory includes over 2,800 miles of Reclamation-owned public roads. This includes 791 miles of paved and 2,066 miles of unpaved roads. Reclamation is required to seek managing partners for recreation areas (which also includes areas from Reclamation's public road inventory). Over 67 percent of Reclamation's roads are operated and maintained by other federal or non-federal agencies. The managing partner agreements state that Reclamation owns the roads and other assets, but the partner is responsible for operations and maintenance for the duration of the agreement. Table 1 is a summary of roadway miles by region.

Table 1. FY 2020 Road Inventory Program roadway mileage by region

Region	Mileage
Arkansas-Rio Grande-Texas Gulf Region	125
California-Great Basin Region	328
Columbia-Pacific Northwest Region	472
Lower Colorado Basin Region	478
Missouri Basin Region	1,035
Upper Colorado Basin Region	420
TOTAL	2,858



FHWA and Reclamation conducting manual rating assessments for the Road Inventory in the Lower Colorado Basin Region. (FHWA-Central Federal Lands Highway Division)

Bridge Inventory and Condition

Reclamation has been receiving Federal Highway Administration (FHWA) funding for many years to comply with the National Bridge Inspection Standards (NBIS). Reclamation manages data for over 7,000 structures using the Reclamation Bridge Inventory. Reclamation-owned public vehicular bridges over 20 feet are reported to the National Bridge Inventory (NBI) and included in the National Federal Lands Transportation Facility Inventory. Historically, Reclamation has approximately 300 NBI bridges. However, the number of NBI bridges fluctuates from year to year due to bridge disposals, new bridge construction, and additions to the inventory. As of 2020, the NBI has information on 312 Reclamation-owned bridges. Reclamation inspected and reported on 282 of these bridges. These bridges are located across 15 of the 17 states that include Reclamation lands; Oklahoma and Texas are the exceptions, as neither has NBI-listed bridges. The remaining 30 bridges were inspected and reported to the NBI by state DOTs.

Reclamation's Bridge Program catalogues extensive information on bridges reported to the NBI and most bridges are designated for inspection every 24 months. The ages of the bridges range from 1 year to 112 years, with the average age of Reclamation bridges being 50 years old. Most Reclamation bridges (91 percent) are in good or fair condition, but there are 25 bridges that are in poor condition and considered structurally deficient (see Table 2). Figure 2 shows the type of structure for Reclamation bridges, with most bridges (77 percent) being a type of concrete. Bridges in the NBI range in length from 25 to 3,500 feet, with the average length being approximately 110 feet.

Table 2. Condition of Reclamation's NBI bridges ($n=282$)

Condition		
Good	Fair	Poor
33%	59%	9%

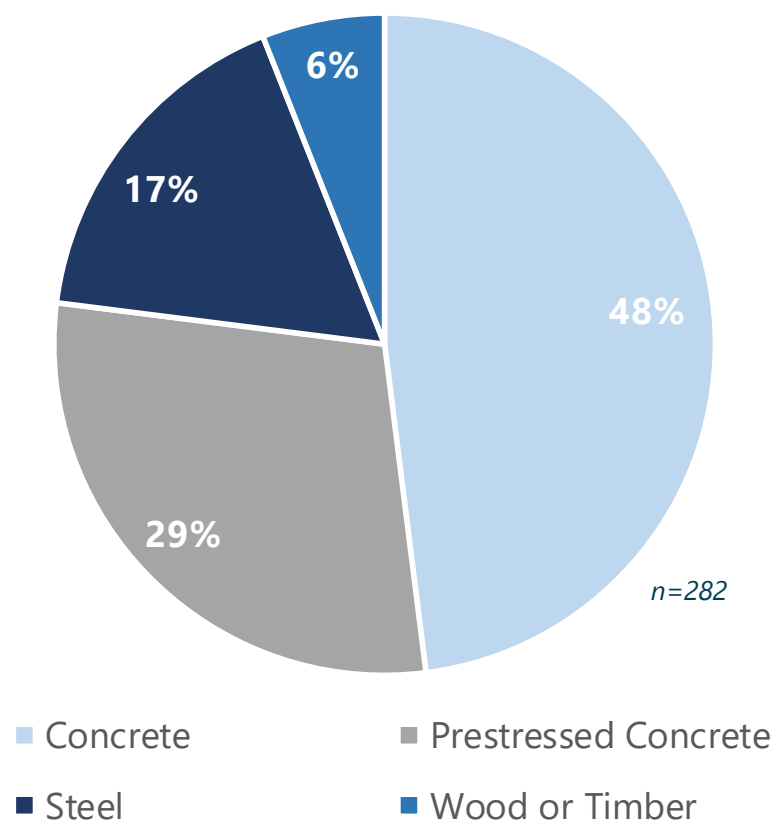


Figure 2. Reclamation bridge structure types

Reclamation is responsible for maintenance on 44 percent of the NBI bridges while state, county, or local agencies maintain most of the other bridges (Table 3). Table 4 provides information on the functional classification of the bridges. Most of Reclamation's bridges are located on rural, local routes and provide two lanes of bi-directional travel. However, 32 percent of Reclamation bridges only have one lane of travel. In most cases, this is a one-lane bridge allowing two-way traffic.

Table 3. Breakdown of maintenance responsibilities for Reclamation-owned bridges ($n=282$)

Maintenance Entity	Percentage of Reclamation-Owned Bridges
State Highway Agency	2%
County Highway Agency	6%
Other State Agencies	10%
Other Local Agencies	32%
Private (Other than Railroad)	6%
U.S. Fish and Wildlife Service	1%
Bureau of Reclamation	44%

Table 4. Functional classification of bridges ($n=282$)

Functional Classification	Number of Bridges
RURAL	
Principal Arterial - Interstate	1
Principal Arterial - Other	5
Minor Arterial	42
Major Collector	14
Minor Collector	21
Local	194
URBAN	
Minor Arterial	1
Collector	1
Local	3

Reclamation bridges in the NBI are also called Type 1 bridges. Reclamation classifies two other types of bridges. Type 2 bridges are Reclamation-owned bridges not located on a public road. Type 2 includes: pedestrian bridges, trail bridges, railroad bridges, and non-public road bridges. Type 3 bridges are non-Reclamation-owned bridges that cross Reclamation facilities (typically water conveyance facilities like canals). Type 3 bridges are usually public bridges that are included in the NBI, but are owned and reported by another agency. Reclamation tracks information on Type 3 bridges to ensure Type 3 bridges are not impacting Reclamation's water delivery capabilities. Reclamation has over 1,100 Type 2 bridges and over 3,000 Type 3 bridges. There are over 2,000 more structures that are less than 20 feet in length that are also included in the inventory.

Trail Inventory

Reclamation does not yet have a comprehensive trails inventory. The Cycle 1 inventory is underway and should be completed in the next 2 to 3 years. Reclamation estimates having over 1,300 miles of trails. The inventory will help catalogue additional miles of trail and the classification of Reclamation trails.

2018-2019 Transportation Needs Assessment: Facility Type

The 2018-2019 Transportation Needs Assessment asked regions to identify what type(s) of facility was associated with each need and what type of project would be necessary to address the need. Almost all of the needs identified a primary facility or feature where the project need was located. In some cases a secondary facility or feature was also identified. Table 5 and Figure 3 show that most regions identified needs located on roadways, parking lots, and bridges involving a capital improvement project.

Table 5. Reclamation Transportation Needs: Facility type of the project ($n=352^1$)

Feature	Number of Projects as Primary Feature	Number of Projects as Secondary Feature
Boat Ramp	20	16
Bridge	49	6
Culvert	7	7
Parking Lot	46	79
Roadway	207	59
Trail	23	12

¹ Two of the 354 needs identified did not identify any transportation feature associated with the entry.

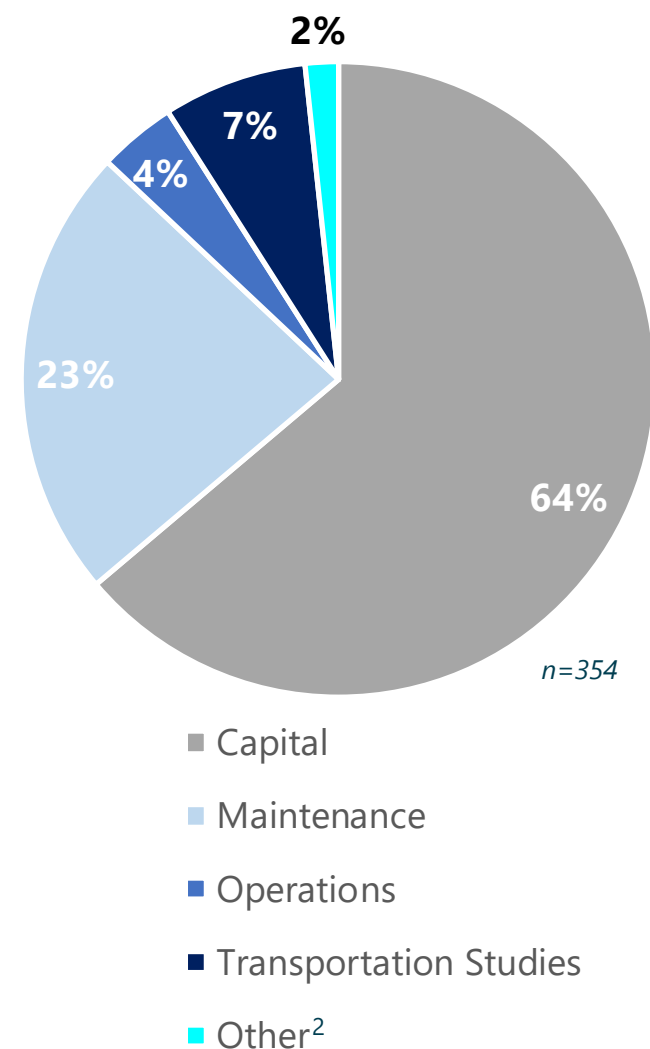


Figure 3. Reclamation needs by project type

² The “Other” project type category was predominantly agreement project needs. The need was usually to formalize a maintenance or easement agreement.

2018-2019 Transportation Needs Assessment:

Facility Condition

In the 2018-2019 Transportation Needs Assessment, regions could self-assess the condition of the transportation facility each need was located on. Of the 354 needs entered, 289 of the entries provided an observation of the facility condition (Figure 4). Fifty-five percent of the transportation facilities upon which the need was located were assessed to be in fair or good condition, meaning pavement preservation may be enough to maintain the facility. The remaining 45 percent of facilities were assessed to be in poor or failed condition. This means some level of capital improvement will likely be necessary in the near future to keep those facilities in good operation.

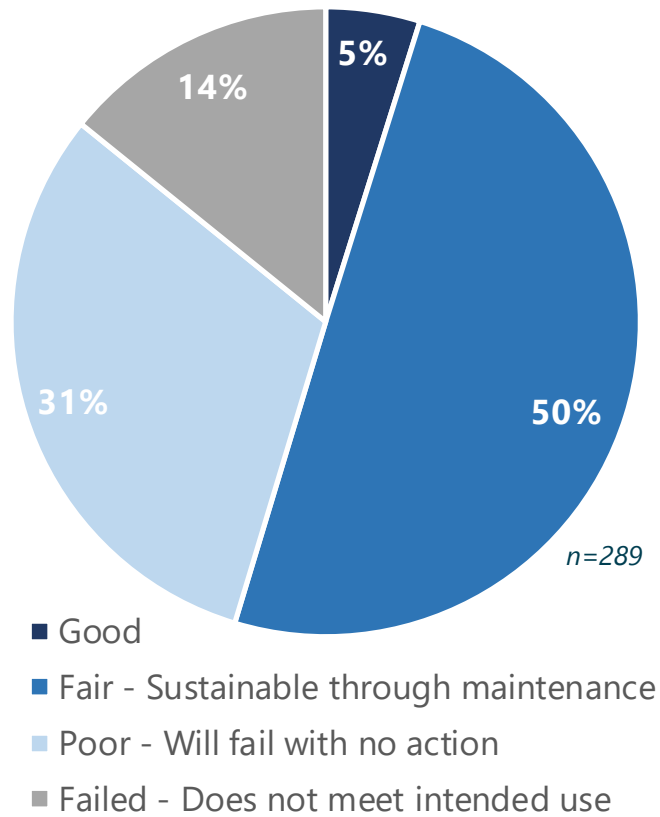


Figure 4. Assessment of transportation facility condition

Existing Conditions: Safety

Reclamation has systems in refinement or development that will assist with tracking safety incidents on Reclamation transportation facilities. Reclamation uses a system called the Safety Management Information System (SMIS) that tracks all safety incidents across Reclamation lands. One of the many types of incidents tracked is Motor Vehicle Accidents (MVAs). Since the start of FY 2016, when Reclamation was included in the FLTP, there have been 20 reported MVAs. However, not all of these accidents were on Reclamation-owned roads. Currently, SMIS tracks all Reclamation personnel involved in MVAs regardless of whether they were on Reclamation-owned roads or not. Reclamation's Asset Management Division (AMD) is working with its Policy and Programs Directorate to improve the capabilities of SMIS for better data tracking of accidents on Reclamation-owned roads.

Reclamation also worked with the Department of the Interior (DOI) and U.S. DOT Volpe Center in creating the Fatality Analysis Report System Crashes on Federal Lands Tool. This database geospatially mapped crashes that occurred on roads within federal land boundaries, which were reported in the Fatal Analysis Reporting System (FARS) from 2009 to 2011 and 2013 to 2017. Twenty incidents, resulting in twenty-four fatalities, were reported within Reclamation boundaries. However, only eight incidents identified a road owner, and these incidents involved either a state or a county road owner. All incidents were one-vehicle crashes, with drunk drivers reported in 12 of the incidents. Only one incident cited inadequate or poor roadway design or construction as a factor in the crash.

Continued use and refinement of the SMIS and FARS databases will allow Reclamation to track fatalities on Reclamation-owned roads over time and analyze trends related to the fatal crashes. Going forward, SMIS and FARS will be able to assist Reclamation in identifying areas on transportation facilities that routinely experience safety incidents. Both systems will also have the ability to assess if design or condition of the facility contributed to the crash. As a result, these areas can then be prioritized for project funding to support improvements.

2018-2019 Transportation Needs Assessment: Safety Concerns

The 2018-2019 Transportation Needs Assessment asked regions for each need they entered to describe safety concerns associated with that need. Questions included describing the level of safety risk associated with the need that was entered, and if the need had a specific type of safety concern. Risk could be assessed as low, medium, high, or not applicable. For the type of concern, regions could say if the need had a safety concern related to vehicle, pedestrian, bicycle, or visitors with disabilities access, or if there was just a general hazard that needed to be addressed; regions could also designate this category as not applicable.

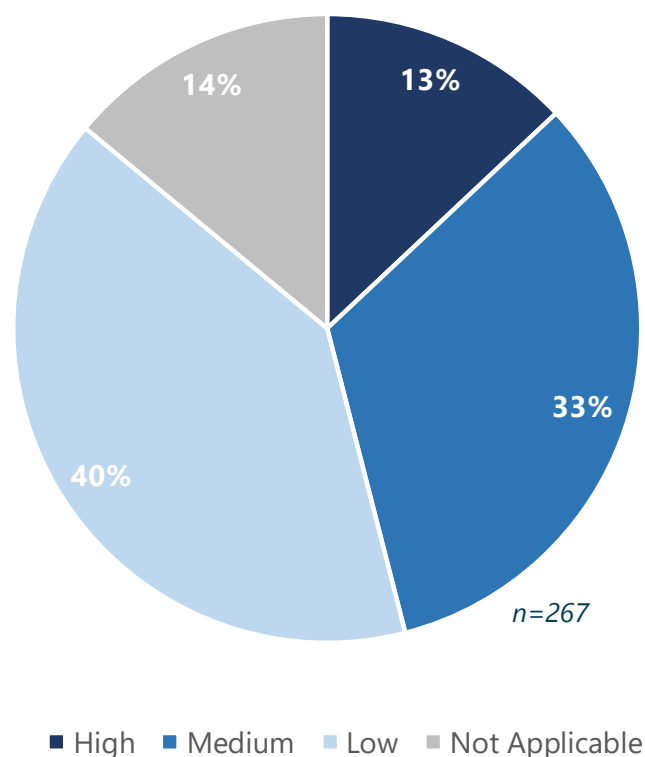


Figure 5. Safety risk associated with the need

Figures 5 and 6 illustrate the results from the needs entered by the regions. Thirteen percent of the needs entered into the assessment were observed to have a high-risk safety concern associated with them, while 40 percent of the needs were assessed as low-risk safety concerns. The type of safety concern (Figure 6) mostly involved safe vehicle access, chosen for 68 percent of the needs entered that had some associated safety risk.

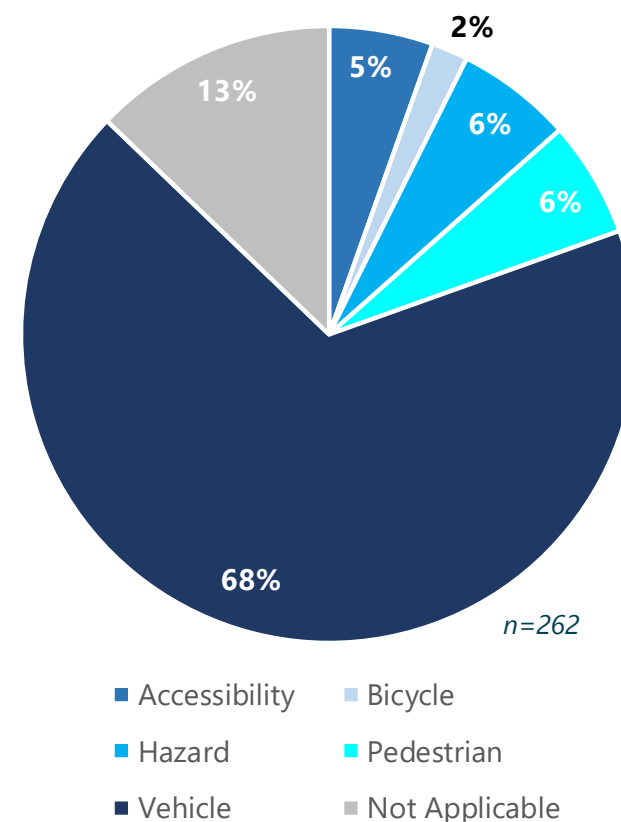


Figure 6. Type of safety concern

Existing Conditions: Economic Generation

Reclamation's impacts to economic generation include both the recreation opportunities and the water and power resource infrastructure provided to the country. Reclamation owns/manages approximately 6.5 million acres of land and water, much of which is available for public outdoor recreation. Reclamation owns and oversees over 240 developed recreation areas that draw over 44 million visits annually. The developed recreation areas provide 590 campgrounds, 450 boat launch ramps, 7,500 miles of shoreline, and 18,000 campsites to the American public. There are more than 500 designated Reclamation day use areas with facilities that include picnic sites and shade shelters. These areas accommodate activities such as hiking, fishing, educational interpretation programs, watersports, and wildlife viewing. In Reclamation areas that do not have developed recreation facilities, dispersed recreational opportunities such as hunting, hiking, photography, wildlife viewing, and fishing are available.

Table 6 illustrates the range in annual visitation that Reclamation recreation areas received in 2018. Sixty-three percent of sites reported visitation under 100,000. The remaining 37 percent of sites reported visitation over 100,000.

Table 6. Reclamation 2018 recreation visitation

2018 Visitation	Percentage of Sites
0-9,999	20%
10,000-49,999	31%
50,000-99,999	12%
100,000-249,999	18%
250,000-499,999	8%
500,000+	11%

Reclamation is best known for the dams, power plants, pipelines, and canals constructed in the 17 western states. Reclamation is the steward of approximately 67 percent, by value, of all DOI real property assets (buildings and structures constructed by DOI). Reclamation's water resource infrastructure assets have a current estimated total replacement value of \$113.4 billion. In FY 2019, the delivery of water, power, and other benefits from Reclamation's projects provided \$67 billion in positive economic impact and supported more than 472,000 jobs.¹

Existing Conditions: Partnerships

Reclamation is directed by Congress to coordinate the recreation use at its water projects with the use of existing and planned federal, state, or local public recreation developments and to seek non-federal public bodies, or other federal agencies, to manage recreation at Reclamation project areas. Over the years, it has been Reclamation's goal to seek other qualified government entities to manage recreation at its water projects. This effort has resulted in many successful federal and non-federal partnerships with qualified entities throughout the 17 western states.

Most Reclamation project areas have been developed and managed for recreation purposes in partnership with state, county, or local governments who have entered into long-term recreation management agreements with Reclamation. These types of agreements are typically for 25 years and have a specified termination date. As of 2018, 64 non-federal partners manage 190 developed recreation areas at Reclamation water projects while 56 areas are managed directly by Reclamation. In addition, 85 areas have been developed and jurisdictionally transferred to other federal agencies or tribes through agreements or congressional authorization, which allows them to manage recreation and other land resources using their rules and regulations. These types of transfers are usually in perpetuity and have no termination date.

¹ This information is taken from the FY 2019 DOI Economic Report: <https://www.doi.gov/sites/doi.gov/files/econ-report-2019-final.pdf>.

2018-2019 Transportation Needs Assessment: Partnering Opportunities

The ownership and/or maintenance of transportation facilities is generally an eligibility factor when pursuing funding for transportation needs. In the 2018-2019 Transportation Needs Assessment, regions were asked what entities owned and maintained the facility upon which the entered needs were located. Eighty-nine percent of the needs entered were on facilities owned by Reclamation or another federal entity. However, 57 percent of the needs entered were on facilities operated or maintained by non-federal entities.

Reclamation facilities that are operated or maintained by non-federal entities may make them eligible for some funding sources that are only available to state, county, and local agencies. One such program is the Federal Lands Access Program (FLAP). FLAP is an Office of Federal Lands Highway program to improve transportation facilities that provide access to, are adjacent to, or are located within federal lands. The program helps supplement state and local resources for public roads, transit systems, and other transportation facilities providing improved and increased access to federal lands. Reclamation sites have been eligible for FLAP funding since 2012. To date, 24 FLAP projects that lead to Reclamation lands have been funded in 14 of the 17 states where Reclamation has lands (See Appendix I for a list). FLAP funds identified for programming toward projects accessing and within Reclamation lands have exceeded \$75 million, with projects programmed out through FY 2025.



Berryessa-Knoxville Road, California. A Federal Lands Access Program Project. (FHWA-Central Federal Lands Highway Division)



Birdsall Road 2019 construction of Mechanically Stabilized Earth retaining walls to repair erosional damage.
(FHWA-Central Federal Lands Highway Division/Justin Henwood)

Chapter 4: Transportation Funding Needs and Funding Outlook

Using available data, Reclamation estimated its total transportation need. This need was predominantly derived from the information the regions provided through the 2018-2019 Transportation Needs Assessment. In addition to the Needs Assessment, the need was identified through partially available data from the Road Inventory Program (RIP), information on bridge safety and deficiency, an estimate of trail maintenance needs, non-capital planning and programmatic needs, and large project needs identified through transportation bill reauthorization research.

Review of all these data determined that it was important to develop a strategy that focused on meeting as many of the needs as possible over the next 10 years while also anticipating that there are many future needs that are yet-to-be identified when taking into account the 20-year planning horizon. Therefore, this chapter projects 20 years of need based on the assumption that the existing transportation need only accounts for about half of Reclamation's total need and that the same amount of new needs will be identified over time.

Reclamation can estimate the gap in funding by comparing the difference in identified and anticipated need with funding availability over the next 20 years by extrapolating another 10 years of new need equal to the amount of existing transportation funding need. The extent of Reclamation's funding gap will depend on a variety of factors that can only be approximated based on changes in current funding levels and projected success in leveraging other funding sources.

The funding outlooks developed for this plan present a range based on Reclamation's historical transportation funding and the pattern of increase in transportation funding from Congress. The gap between Reclamation's estimated need and each funding outlook will be bigger or smaller depending on how much additional funding becomes available

through partnering and leveraging of the base transportation program. The projected cost and funding figures in this plan all use an inflation rate of 3 percent, compounded, to estimate future cost of today's dollars. Three percent was chosen based on the long-term average inflation rate and forecasts.

Transportation Need

2018-2019 Transportation Needs Assessment

The 2018-2019 Transportation Needs Assessment was a snapshot in time. The assessment catalogued as many transportation needs as possible and included Reclamation's MR&R needs for transportation facilities (See Appendix A and Figure 7). Most entries were capital or maintenance improvements to roadways or parking lots; only a few trail and planning projects were identified. A review of the projects entered in the assessment identified almost \$290 million in project need on facilities open to public access.¹ Considering inflation compounded over 10 years, this need is estimated at over \$390 million.

Figure 7. A snapshot of the ArcGIS tool that regions used to enter and describe transportation needs

¹ \$290 million is the sum of the median estimated cost for each need entered.

Road Inventory

Reclamation is in the process of completing initial road condition assessments as part of the RIP. Condition information from the inventory will further inform Reclamation's overall transportation needs in the next 10 years. It will identify recurring maintenance that will be needed, such as chip seals, overlays, full pavement replacements, and gravel replacements.

In the absence of a complete road inventory dataset, Reclamation conducted an analysis using available RIP data for the Lower Colorado Basin and Upper Colorado Basin regions to estimate the additional need not yet captured in the 2018-2019 Transportation Needs Assessment. These two regions include almost 40 percent of Reclamation's roadway miles. The analysis compared road and parking lot needs identified through the RIP condition assessments against road and parking lot needs entered into the transportation assessment. This determined what additional need was captured in the RIP and not identified in the assessment. The result was an additional 40 percent in needs identified across the two regions. Using that figure and applying it across all Reclamation roadway mileage, it is estimated there is another \$115 million in transportation need. Considering inflation over 10 years, the need would be estimated at \$155 million.

Table 7 explains the identified additional RIP need. Appendix J further explains the comparison between the Lower Colorado Basin and Upper Colorado Basin regions' RIP and the 2018-2019 Transportation Needs Assessment data.

Deficient Bridges

Reclamation's bridge inspection program has identified 25 structurally deficient bridges that need over \$30 million in repairs. Adjusting for inflation, this need is over \$40.5 million in the next 10 years.

Table 7. Summary of estimated additional need from the Road Inventory

Factor in Road Inventory	Value
2020 Reclamation Miles	2,857
Estimated Maintenance per Mile ¹	\$100,000
Estimated Total Road Network Maintenance Needs	\$287,000,000
40% of RIP Need (Estimate of RIP needs not captured in Needs Assessment)	\$115,000,000

Trail Maintenance

The 2018-2019 Transportation Needs Assessment only identified about a dozen trails initially needing some sort of improvement and only one request for a new trail segment. It is expected that trail project needs will grow as recreation visitation to Reclamation sites increases, Reclamation's trail inventory matures, and more trail connectivity projects are identified.

Currently, Reclamation has over 1,300 miles of trails. While the exact condition or need on all 1,300 miles is not known, Reclamation has used research from the U.S. Forest Service and Rails-to-Trails Conservancy to estimate needing at least \$1,000 to \$1,500 per mile in trail maintenance each year.² This amounts to \$1.95 million a year to maintain the 1,300 miles of trails, or \$19.5 million over 10 years. Adjusting for inflation, this need is almost \$22.5 million.

¹ Figure based on analysis of treatment needs in Lower and Upper Colorado Basin RIP.

² https://www.fs.fed.us/ne/newtown_square/publications/research_papers/pdfs/scanned/OCR/ne_rp575.pdf.

<https://www.greenwaysfoundation.org/resources/BestPractices-TrailMaintenance.pdf>.

Planning Needs

Reclamation has annual programmatic planning needs related to long-range planning, data collection, Road Safety Audits, establishing a Traffic Monitoring Program, and the ongoing management of road, bridge, and trail inventory programs. The Federal Lands Planning Program (FLPP) is the only dedicated funding source for all programmatic planning needs. Reclamation only receives about \$2 million a year in FLPP funds. This allotted amount isn't enough to cover all programmatic needs without making choices about restricting the depth of detail that develops the management systems used to make investment decisions.

The 2018-2019 Transportation Needs Assessment identified over 30 local-level planning projects, which amounts to over \$10 million in program costs. These local-level studies are accounted for in the overall Transportation Needs Assessment figure, in part because FLPP cannot typically fund individual local-level studies or plans. These prospective planning projects range from facility feasibility studies to larger site studies that consider future access management. A larger FLPP or other FLTP and Reclamation funds will be needed for project level planning efforts. However, competing capital and maintenance priorities make it hard to use these funds for planning efforts.

20-Year Need

Based on the 2018-2019 Transportation Needs Assessment, RIP condition evaluation, structurally deficient bridge figures, estimated trail maintenance, and planning needs, Reclamation's total estimated transportation need over the next 10 years would be over \$455 million or about \$46 million a year. Adjusting for inflation, this figure would grow to \$608 million in 10 years (Table 8) and almost \$1.2 billion in 20 years.

The 20-year planning need is extrapolated from the 10-year project-focused need explained within this chapter. It is assumed that the needs assessment, and other estimated need, only captured 10 years of need, and the additional \$608 million in the out years of the plan will be re-evaluated in 5 years when this plan undergoes its first update. During the next 5 years, Reclamation may consider implementing a Pavement Preservation Program (PPP) once the RIP is completed. Establishing a PPP would prolong the pavement life cycles to 30 or 40 years, thus reducing Reclamation's long-term pavement rehabilitation and reconstruction costs. In conjunction with implementing a PPP, the 2018-2019 Transportation Needs Assessment could also be re-deployed to more comprehensively capture future needs that go beyond the needs initially captured and represented in the 10-year Implementation Plan.

Table 8. Summary of estimated 10-year need

Need Area	Estimated Cost with Inflation
2018-2019 Needs Assessment (including planning needs)	\$390M
Additional RIP Need	\$155M
Structurally Deficient Bridges	\$40.5M
Trail Maintenance	\$22.5M
TOTAL	\$608M

Large Projects

Individual project needs can frequently exceed financial resources available from typical funding allocations. These types of projects will require specific congressional legislation to address. For example, Reclamation owns the 3,600-foot Pit River Bridge located in Northern California that carries Interstate 5 and the Union Pacific Railroad over Shasta Reservoir. The Pit River Bridge is the only interstate bridge in the U.S. that is owned by a federal agency. The California Department of Transportation (Caltrans) is considering rehabilitation or replacement alternatives for the bridge. The estimate to fully replace this bridge is \$1.5 billion. This transportation need is not accounted for in the 10-year need summarized in previous sections of this chapter.

Pre-construction activities for raising Shasta Dam have been congressionally approved and are underway. If related plans for raising Shasta Reservoir are also approved, then the existing Pit River Bridge would need to have a major rehabilitation performed to protect the bridge from the higher reservoir level. Pit River Bridge is one of the only bridges connecting California to the Pacific Northwest. Catastrophic closure of the bridge would cost an estimated \$44 million per month in delays and lost shipping time.¹

¹ Caltrans 2014 Pit River Bridge: Financial Impact Study of Interstate 5 Closure from a Catastrophic Failure.



Pit River Bridge, California (Caltrans)

Funding Outlook

Reclamation has only been a competitive partner in the FLTP since FY 2016. Before becoming an FLTP partner, Reclamation invested in transportation projects, but historical patterns related to transportation investments were not tracked. Furthermore, Reclamation's Transportation Program is still expanding and developing. New information about road and trail conditions may expand the amount of estimated need and may influence the amount of FLTP funding Reclamation secures in the future.

As such, Reclamation's first National LRTP presents three funding outlooks to help Reclamation plan and prioritize its transportation needs. Outlook A assumes Reclamation only commits FLTP funds to transportation needs. Outlook B assumes Reclamation's Transportation Program continues the pattern of investment it has been following since it started receiving FLTP funds. In this situation, Reclamation would continue to leverage its own funds and other federal transportation funds to complete transportation projects. Outlook C assumes Reclamation will see a slightly larger increase in FLTP funds, thus resulting in the ability to leverage more Reclamation and other federal funds.

A. Federal Lands Transportation Program (Base) Funds Only

Since 2016, Reclamation has competed with Bureau of Land Management, U.S. Army Corps of Engineers, and other approved Independent Federal Agencies for about \$25 million in FLTP funds each year. Reclamation has competed successfully in this process, growing its annual allocation of FLTP funds to about \$7.5 million a year.

Under this outlook, funding available for Reclamation transportation needs is limited to the FLTP funds Reclamation receives each year. FLTP is Reclamation's only source of funding committed exclusively to transportation projects. The next transportation bill will determine what increases FLTP may see. The bill will also determine if Reclamation remains a competing partner or is given a dedicated allocation each year.

Based on historical patterns, this outlook assumes funding levels remain around \$7.5 million a year, increasing only by about 3 percent each year. This outlook also assumes Reclamation remains a competitive partner in FLTP and successfully competes for about the same level of funding each year. Under this outlook, Reclamation would receive about \$86 million in FLTP over the next 10 years, or \$202 million over the next 20 years. This would leave an estimated funding gap of \$522 million over the next 10 years or \$1.014 billion over 20 years.

Federal Lands Transportation Program

The Federal Lands Transportation Program (FLTP) was established in 23 U.S.C. § 203 to improve the transportation infrastructure owned and maintained by the following federal lands management agencies: National Park Service, U.S. Fish and Wildlife Service, USDA Forest Service, Bureau of Land Management, U.S. Army Corps of Engineers, Bureau of Reclamation and Independent Federal Agencies with land and natural resource management responsibilities.

Eligible facilities include public highways, roads, bridges, trails, transit facilities, and other appropriate public road facilities located on, adjacent to, or providing access to federal lands for which title and maintenance responsibility is vested in the federal government. Maintenance responsibility is still vested with the federal government when Reclamation has a transferred works contract or managing partner agreement.



B. Base Funding with Leveraging (Business as Usual Funding)

Since Reclamation became a part of the Federal Lands Transportation Program, FLTP funds have successfully been leveraged with other Reclamation and federal transportation funds to address more transportation projects. Using a combination of other Reclamation funds and funding that Reclamation partners have received from the FLAP, Reclamation has successfully programmed over 35 FLTP projects and has seen partners receive funding for more than 24 FLAP projects.

Under this outlook, Reclamation's FLTP funding levels are the same as in the previous section and contributions of other Reclamation funds will continue. The ability for Reclamation or its partners to continue to secure a minimal amount of other federal transportation funds is also assumed.

Reclamation is required to seek out managing partners to manage recreation and resources on Reclamation land. Reclamation currently has 64 non-federal partners that manage 190 developed recreation areas at Reclamation projects. Over 67 percent of Reclamation-owned roads are managed by other entities. This creates a unique opportunity for Reclamation to use FLTP and FLAP funds on Reclamation roads since FLAP only requires eligible facilities to be owned or maintained by a non-federal entity. The majority of Reclamation's transportation needs could look to FLAP as a potential funding source.

Since 2012, FLAP projects that lead to Reclamation lands have been funded in 14 of the 17 states where Reclamation has lands. FLAP funds identified for programming toward projects accessing and within Reclamation lands have exceeded \$75 million, with projects programmed out through FY 2025. This funding outlook assumes Reclamation continues to coordinate with its partners to pursue FLAP and other federal funds, regardless of whether Reclamation or the partner provides the minimum match. Funding Outlook B estimates that Reclamation can, on average, secure \$5 million a year through these types of funds for projects that access its lands.

Federal Lands Access Program

The Federal Lands Access Program (FLAP) was established in 23 U.S.C. § 204 to improve transportation facilities that provide access to, are adjacent to, or are located within federal lands. The Access Program supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on projects that access high-use recreation sites and economic generators.

Eligible facilities include public highways, roads, bridges, trails, transit located on, adjacent to, or providing access to federal lands, for which the title or maintenance responsibility is vested in a state, county, town, township, tribal, municipal or local government.



Reclamation has always invested its own funds in transportation projects. Some transportation needs in the assessment identified Reclamation funds as one possible source for completing the project. Reclamation contributions to FLTP projects have ranged from \$150,000 to over \$6 million on a single project. Additionally, investment of non-transportation-specific Reclamation funds is often tied to project sites that also produce power.

Historically, it has been harder for Reclamation to contribute additional Reclamation funds to transportation projects covered under a managing partner agreement due to the Title 28 requirement for the managing partner to pay 50 percent of the cost. However, Reclamation recently received a Solicitor concurrence confirming that these federal funds can cover the non-federal share of costs for Title 23 projects including FLTP and FLAP projects. This authority allows Reclamation to contribute additional Reclamation funds to a transportation project even if it is at an area with a managing partner. With confirmation of this authority, Reclamation anticipates an increase in Reclamation funding and managing partner funding for transportation projects at areas with a managing partner. Managing partner contributions were not included in the funding outlook since this authority was not previously available.

Under Outlook B, it is assumed Reclamation would continue to put funds toward priority transportation projects at sites eligible for Reclamation funds with purposes related to maintaining the mission of Reclamation. There are many competing non-transportation projects also seeking Reclamation funding. So, this scenario assumes that \$3 million a year, on average, could go to transportation projects.

Based on historical investment patterns, this scenario assumes Reclamation would have an estimated \$178 million over the next 10 years, or \$417.5 million over 20 years, for transportation projects. This would leave an estimated funding gap of \$430.5 million over the next 10 years, or \$798.5 million over the next 20 years. Table 9 breaks down the estimated FLTP, FLAP, and Reclamation funds contributed in this outlook over the next 10 and 20 years.

Table 9. Estimated funding availability: base funding with leveraging (adjusted for inflation)

Funding Source	Base Funding with Leveraging	
	10 Years	20 Years
FLTP	\$86M	\$202M
FLAP (based on average per year)	\$57.5M	\$134.5M
Reclamation (based on average per year)	\$34.5M	\$81M
TOTAL	\$178M	\$417.5M

C. Increase in Base Funding and Leveraged Funds

The final outlook assumes that Reclamation's FLTP funding is slightly increased above historical patterns, inflating on average by about five percent. If FLTP funding increased, it is assumed that available FLAP funds would also increase. It is assumed Reclamation would then also increase the amount of funds leveraged through FLAP, other federal grants, and Reclamation funds. The increase in FLTP funding could be the result of future congressional actions that would give Reclamation more dedicated FLTP funding or just an increase in the amount of overall FLTP funds available to the competitive partners. Under these assumptions, Reclamation would have an estimated \$195.5 million over the next 10 years, or \$512.5 million over the next 20 years. This would leave an estimated funding gap of \$412.5 million over the next 10 years, or \$703.5 million over the next 20 years.

Table 10 (next page) breaks down the estimated FLTP, FLAP, and Reclamation funds contributed in this outlook over the next 10 and 20 years.

Table 10. Estimated funding availability: increase in base funding and leveraging (adjusted for inflation)

Funding Source	Base Funding with Leveraging	
	10 Years	20 Years
FLTP	\$94.5M	\$248M
FLAP (based on average per year)	\$63M	\$165.5M
Reclamation (based on average per year)	\$38M	\$99M
TOTAL	\$195.5M	\$512.5M

Table 11, below, summarizes each outlook's estimated funds available over the next 20 years by funding source. The table also shows the variance in how big or small the funding gap becomes in the context of meeting all of Reclamation's initial identified transportation needs. As the comparison shows, none of the outlooks would completely meet Reclamation's needs identified through this LRTP. Depending on unforeseen changes to Reclamation's mission or unanticipated new travel demand to Reclamation lands over the next 20 years, the gap between needs and available funding could dramatically increase beyond the baseline identified in this plan.

Table 11. Estimated funding outlook, need, and gap over the next 20 years

Funding Source	Funding Outlook			Funding Need and Gap	
	A. Base Funding	B. Base Funding with Leveraging	C. Increase in Base Funding & Leveraging	Estimated Need	Leveraging Target (Gap)
FLTP	\$202M	\$202M	\$248M	\$1.2B	\$703.5M-\$1.014B
FLAP	-	\$134.5M	\$165.5M		
Reclamation (based on average per year)	-	\$81M	\$99M		
TOTAL	\$202M	\$417.5M	\$512.5M		

Leveraging Opportunities

As illustrated in the above table, Reclamation's need will far outweigh funding available to meet that need. Reclamation's ability to leverage additional transportation funds will determine how much of the transportation need can be addressed. Table 12, on the next page, presents some other funding sources, beyond FLAP and Title 28, that Reclamation may consider for transportation projects.

Table 12. Other potential funding sources for transportation projects

Program	Annual Funding	Type of Funding	Basic Eligibility			
			Eligible Applicants	Eligible Projects	Match	Notes
FHWA Recreational Trails Program (RTP)	40% of State RTP Funds	Competitive	State, county, city, federal, and tribal governments	• Trailside maintenance and restoration • Trailside and trailhead facilities • Construction of new recreational trails • Acquisition of trail corridors • Assessment of trail conditions • Safety and environmental education	20-60%+	• RTP funds are often leveraged with other community and state funds.
FHWA Transportation Alternatives Set-Aside (TA)	\$850 Million	Competitive	Local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, local education agencies or schools, and tribal governments	• Bicycle and pedestrian facilities • Recreational trails • Safe routes to school projects	NA	• The FAST Act also allows nonprofit entities responsible for the administration of local transportation safety programs to apply.
USDOT Rebuilding American Infrastructure with Sustainability and Equity	\$1 Billion	Competitive	State, local, and tribal governments, including U.S. territories, transit agencies, port authorities, metropolitan planning organizations (MPOs), and other political subdivisions of state or local governments	Capital projects including, but not limited to: • Road or bridge projects • Public transportation projects • Passenger and freight rail transportation projects • Port infrastructure investments (including inland port infrastructure and land ports of entry) • Intermodal projects • Projects investing in surface transportation facilities	0-20%	• Discretionary grant • No research projects • Program may put caps on maximum grant award or maximum funds one state may receive.
Nationally Significant Federal Lands and Tribal Projects Program	\$100 Million	Competitive	Any entity eligible under FLTP, FLAP, or the Tribal Transportation Program; also state, county, and local entities	Projects that: • Are on FLTP, FLAP, or TTP eligible facilities • Have completed environmental compliance • Have estimated cost of at least \$25 million	10%	
NPS Rivers, Trails, and Conservation Assistance Program (RTCA)	NA	Competitive	State and local agencies, tribes, nonprofit organizations, or citizen groups. National Parks and other federal agencies may apply in partnership with other local organizations.	Projects that: • Build outdoor opportunities • Conserve natural lands and rivers • Engage the youth • Strengthen organizational capacity • Support NPS	NA	• No monetary grants are made. • This is technical and coordination assistance for federal lands and their gateway communities.



Folsom South Canal Trail Project Phase II, under construction in October 2020.
(FHWA-Central Federal Lands Highway Division/Coby Cubic)

Chapter 5: National Investment Considerations

As indicated in the previous chapter, Reclamation's transportation needs will outweigh available funds. This chapter identifies high-level investment strategies intended to help guide Reclamation in making tough choices on where to best place limited funds. Investment focus areas have been developed to help Reclamation achieve its transportation goals and direct how to maximize improvements to its transportation system using limited transportation funding.

Investment Focus Areas

Investment Focus Area 1: High Priority Projects and System Preservation: Address high priority needs across facility conditions.



Goal Areas: Safety, System Preservation, Economic Generation

Knowing Reclamation's needs will far outweigh future funding availability, this investment area will focus on identifying and addressing Reclamation's highest priority needs first. Reclamation's definition of high priority needs will include those identified by the regions in the needs assessment, Functional Class 1 roads, and the consideration for needs on sites at high risk of turn back. Turn back is where one of Reclamation's managing partners relinquishes their recreation management responsibilities and conveys them back to Reclamation, typically due to financial difficulties.

There are 518 miles of Functional Class 1 roads representing 18 percent of Reclamation's public road inventory. Functional Class 1 roads are Reclamation's highest priority roads, followed by Functional Class 2, and then Functional Class 3.

The 2018-2019 Transportation Needs Assessment asked the regions to self-identify the priority of the need. Of the 354 entries, 59 were categorized as high priority projects with 52 of those being on sites

providing recreation or public access.¹ The regions were asked to self-assess priority and answer questions about the need entered related to the safety, system preservation, and economic generation goals of the LRTP. Overwhelmingly, a common trait of the priority needs was that they were also high priorities as related to the LRTP goal areas. Seventy percent of the needs prioritized as high or medium were also identified to be at least one of the following: on a facility that had either a high or medium safety need, on a facility in poor or failing condition, or accessed a site that was considered a high or medium economic generator for the region.

Investment Focus Area 2: Safety: Address needs with the highest safety concerns.

Goal Area: Safety



The 2018-2019 Transportation Needs Assessment asked the regions to identify if there was a safety concern associated with the need entered and the severity of the safety risk (high, medium, low). One hundred transportation needs were identified as having a safety concern that was rated high or medium. The nature of these concerns predominantly stemmed from facilities the regions said were either deteriorating, had a history of crashes or near-misses, or had a history of conflicts between roadway users.

Reclamation uses the SMIS system to track all safety incidents across Reclamation lands. Reclamation also uses the FARS database to geospatially map fatalities on Reclamation and DOI lands. As more data in FARS and SMIS are analyzed, Reclamation will be able to identify hotspots where additional safety improvements, beyond those already identified in the assessment, should be made.

Maintaining safe bridges is also a part of this focus area. Reclamation has identified 25 structurally deficient bridges in need of repair. The estimated cost to fix these bridges is about \$40.5 million with inflation. Reclamation's transportation program will continue to look at ways to focus transportation funding towards bridges that are or will become structurally deficient.

¹ Until needs are programmed into projects for delivery, it is hard to know how many projects this priority will equate to; estimated at 40 to 45 projects.

Investment Focus Area 3: High-Use Recreation Sites: Address needs at high-use recreation sites and expand transportation options.



Goal Area: Economic Generation

Transportation legislation and funding programs for federal lands place emphasis on identifying and investing in sites that draw in high numbers of visitors and provide economic generation for the communities where they are located. Reclamation does not have an absolute definition of high-use recreation sites, but recognizes that funding projects at sites with high or growing visitation will help meet Reclamation's mission and LRTP goals.

In the 2018-2019 Transportation Needs Assessment, the regions were asked to gauge if the transportation need they entered was at a site that had visitation over or nearing visitor carrying capacity, based on observations from staff. One hundred and thirty-eight needs were identified at sites over or nearing capacity. Prioritizing project needs at these sites will help manage growing visitation and issues that arise at facilities that are viewed as having higher use.

Transportation options to and within Reclamation sites influence how visitors access and experience these recreation areas. In the long term, they can also affect visitation levels if visitors return to experience the area again. This also subsequently impacts regional economies and resources at Reclamation sites. With limited transportation funding available, Reclamation's transportation program will continue to focus on road, bridge, and parking lot improvements at these high-use sites first. As Reclamation makes strides in meeting needs associated with these priority facilities and as visitation continues to grow, the ability to address trail needs and expand trail and transit options will increase.

The 2018-2019 Transportation Needs Assessment identified 20 multi-modal needs. Almost all of these needs were trail improvements or building new trail connections. The median estimated cost for these improvements is around \$21 million. The trail inventory that is underway is anticipated to generate additional project need. Also, as the regions see needs being addressed on priority facilities or as more transportation funds become available, the focus will likely turn to identifying and completing more trail and possibly transit projects.



Investment Focus Area 4: Leveraging Funds: Prioritize projects that leverage FLTP funds with other funding sources.

Goal Area: Partnering

Coordinating across funding programs inside and outside Reclamation, and amongst multiple partners, will assist Reclamation in bridging some of the estimated transportation funding gap. Partnering will be an underlying investment principle as Reclamation tries to address needs across the other investment focus areas.

As previously discussed, the unique structure by which Reclamation manages its recreation areas means the majority of Reclamation-owned transportation facilities are managed by non-federal or sometimes other federal entities. Of the 354 needs entered in the 2018-2019 Transportation Needs Assessment, 57 percent were on facilities that had some combination of this ownership and maintenance relationship. Many of Reclamation's transportation needs could pursue a combination of funding sources available to federal and non-federal entities.



Lake Berryessa Foxtail Flat Day-Use Area improvements completed in 2018.
(FHWA-Central Federal Lands Highway Division)

Chapter 6: Implementation

Reclamation's LRTP provides a framework to build on the success of Reclamation's existing transportation program. It identifies goals and objectives that will assist Reclamation in meeting transportation needs and the agency's mission over the next 20 years. The LRTP funding outlook assumptions and investment strategies will help guide Reclamation in implementing a transportation program that can address a range of transportation needs depending on future funding availability.

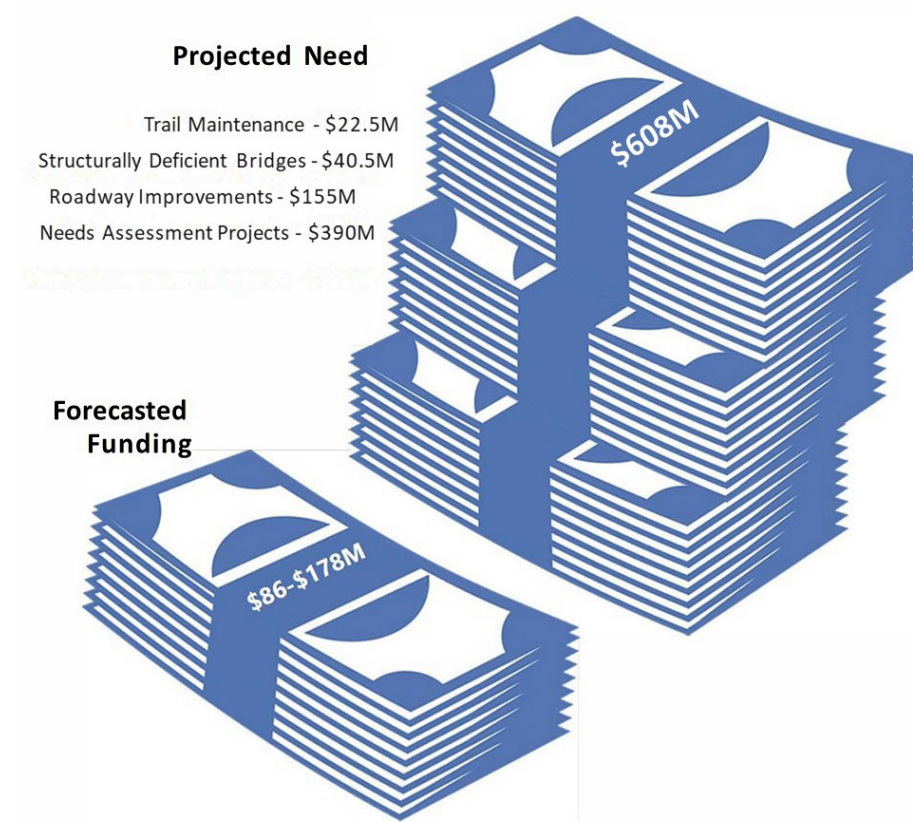
As indicated earlier in the plan, a 10-year implementation strategy will be undertaken to help Reclamation better link its 20-year vision for improving its transportation system to its shorter-term project delivery decision-making process. The implementation strategy will focus on an evaluation of competing priorities and different options for how best to achieve the established goals. It will also focus on identifying some initial performance management strategies as well as continuing outreach and coordination with Reclamation partners and stakeholders. Both actions are key to ensuring Reclamation can address its greatest transportation needs and make the best use of funding available.

10-Year Project Implementation Strategy

This section focuses on a set of options that Reclamation could consider to meet its needs over the next 10 years based on the goals and objectives it will pursue in the next 20 years. Over the next 10 years, it is estimated that \$86 million in FLTP funding will be available. The identified need during this same timeframe is over \$608 million. Considering all the needs in the assessment, additional need identified through the road inventory, costs to fix structurally deficient bridges, and costs of maintaining Reclamation's existing trails, this equates to a funding gap of \$522 million. To close this gap, Reclamation will need to rely on partnerships and funding leveraging opportunities.

Considering the amounts Reclamation has historically leveraged in other funding, and assuming a continued focus to identify and pursue more leveraging opportunities, this 10-year project implementation plan will assume that Reclamation could potentially leverage at least another \$92 million over the next 10 years, thus creating a range of funding from a base of \$86 million to as much as \$178 million.

10-Year Outlook



Even with leveraging, funding availability will likely not be sufficient to meet all identified needs. Reclamation will need to make choices about where to prioritize funding. Programmatically, the following investment focus areas have been established in this LRTP:

High Priority Projects and System Preservation

- Addressing high priority projects across all need categories.
- Addressing needs on Reclamation's 518 miles of Functional Class 1 roadways.
- Addressing projects at sites with high turn back risk.

Safety

- Addressing project needs at sites with the highest safety concerns.
- Fixing structurally deficient bridges.

High-Use Recreation Sites

- Completing projects at sites with the highest use.
- Consideration for expanding transportation options for visitors.

Leveraging Funds

- Prioritizing projects looking to use FLTP funds as match for a larger FLAP project.
- Prioritizing projects that bring in additional funding, beyond FLTP, to a transportation project.

This next section presents a few options for how Reclamation could prioritize limited funding over the next 10 years by each investment focus area. It concludes with an option that funds a mix of projects across all investment focus areas.

High Priority Projects and System Preservation Focus

This option focuses on addressing the highest priority needs already identified by the regions and supplemental rehabilitation and pavement preservation on the 518 miles of Functional Class 1 roads. It also addresses needs in the assessment at sites with high turn back risk, fixes the structurally deficient bridges, and provides some funding for maintaining trails. Addressing needs across these elements is vital to maintaining and preserving Reclamation's priority assets.

Table 13 (next page) estimates the cost to address all the needs in this investment area alone. The Percent of Total Need column then apportions the comparative amount of need in each category in relation to the total amount of need identified in the table. Based on how much funding is estimated to be available in FLTP, the percentages are then applied to the assumed amount of FLTP funding. Lastly, the Leveraging Target column looks at how much additional funding in leveraging would be needed in each category to meet all the need.

In this scenario, Reclamation has \$86 million in FLTP funding available over the next 10 years. Reclamation would need to leverage an additional \$115.5 million to meet needs identified to date in this area, or about \$12 million a year. Based on Reclamation's historical success with leveraging, it is reasonable to assume the leveraging target could be achieved.

Table 13. Estimated cost and projected funds available to address a high priority projects and system preservation focus

High Priority Projects and System Preservation Focus Project Type	Estimated Cost with Inflation	Percent of Total Need	Projected Funds Available Over 10 Years	
			Estimated Portion Covered by FLTP	Leveraging Target
Needs Identified as High Priority by Regions ¹	\$86M	43%	\$37M	\$49M
Highest Needs on Functional Class 1 Roads (Pavement Preservation & Rehabilitation) ²	\$60M	30%	\$26M	\$34M
Needs at Sites with High Turn Back Risk	\$10M	5%	\$4.3M	\$5.7M
Minimal Trail Maintenance Budget	\$5M	2%	\$1.7M	\$3.3M
Fix Structurally Deficient Bridges	\$40.5M	20%	\$17M	\$23.5M
TOTAL	\$201.5M	100%	\$86M	\$115.5M

¹ The number of actual projects for all needs in this table would be determined by how they are packaged for delivery.

² Some Functional Class 1 Road needs may be addressed via High Priority Project Needs identified by the regions in the 2018-2019 Transportation Needs Assessment.

High Safety Risk Focus

When considering how to balance transportation investment priorities, safety is always going to be at the top of the list. The figures in Table 14 represent a summary of the safety needs identified in the 2018-2019 Transportation Needs Assessment, along with the bridges that have been rated as structurally deficient.

Table 14 estimates the cost to address all the projects in this investment area alone. The Percent of Total Need column then apportions the comparative amount of need in each category in relation to the total amount of need identified in the table. Based on how much funding is estimated to be available in FLTP, the percentages are then applied to the

assumed amount of FLTP funding. Lastly, the Leveraging Target column looks at how much additional funding in leveraging would be needed in each category to meet all the need.

In relation to the projected base funding amount, Reclamation is well positioned to meet almost all of its highest safety needs over the next 10 years. However, if safety were the sole focus, there would be no funding remaining to address other needs. Further, this only addresses the highest safety needs. There were almost another 100 needs identified as having a medium safety risk. It is anticipated that further analysis of the SMIS and FARS data would identify more safety needs.

Table 14. Estimated cost and projected funds available to address a safety focus

High Safety Risk Focus Project Type	Estimated Cost with Inflation	Percent of Total Need	Projected Funds Available Over 10 Years	
			Estimated Portion Covered by FLTP	Leveraging Target
Needs Identified as Having a High Safety Risk ¹	\$46M	53%	\$46M	-
Structurally Deficient Bridges	\$40.5M	47%	\$40M	\$0.5M
TOTAL	\$86.5M	100%	\$86M	\$0.5M

¹ The number of actual projects for all needs in this table would be determined by how they are packaged for delivery.

High Use Recreation Focus

As demand for recreational access continues to increase throughout the western United States, demand for enhanced access to Reclamation managed lands is also on the rise. This option looks at the cost associated with a more robust investment in enhanced access and diversified visitor experience at sites designated as having high use. It is likely that some of Reclamation's best leveraging opportunities could be at these high-use sites because sustained high levels of use create more commercial opportunities for prospective managing partners. This option may also be the best position for leveraging, as many funding programs have emphasis related to improving access and high use is one of the main criteria for selecting FLAP projects.

Table 15 estimates the cost to address all the projects in this investment area alone. The Percent of Total Need column then apportions the comparative amount of need in each category in relation to the total amount of need identified in the table. Based on how much funding is estimated to be available in FLTP, the percentages are then applied to the assumed amount of FLTP funding. Lastly, the Leveraging Target column looks at how much additional funding in leveraging would be needed in each category to meet all the need.

Table 15. Estimated cost and projected funds available to address needs related to a high use recreation focus

High Use Recreation Focus Project Type	Estimated Cost with Inflation	Percent of Total Need	Projected Funds Available Over 10 Years	
			Estimated Portion Covered by FLTP	Leveraging Target
Needs at Sites Designated High-Use by Regions ¹	\$106M	82%	\$71M	\$35M
Committed Trail Maintenance Budget	\$22.5M	18%	\$15M	\$7.5M
TOTAL	\$128.5M	100%	\$86M	\$42.5M

¹ The number of actual projects for all needs in this table would be determined by how they are packaged for delivery.

Leveraging Funds Focus

As previously discussed, leveraging will be crucial to Reclamation being able to address more need over the next 10 years. Reclamation's needs at sites with managing partners will be best positioned to compete for funds that can be leveraged with FLTP. In instances where Reclamation's managing partner is another federal agency, there may also be opportunities to combine FLTP from multiple agencies.

Table 16 estimates the cost to address all the projects in this investment area alone. The Percent of Total Need column then apportions the comparative amount of need in each category in relation to the total amount of need identified in the table. Based on how much funding is estimated to be available in FLTP, the percentages are then applied to the assumed amount of FLTP funding. Lastly, the Leveraging Target column looks at how much additional funding in leveraging would be needed in each category to meet all the need.

Table 16. Estimated cost and projected funds available to address needs related to a leveraging funds focus

Leveraging Funds Focus Project Type	Estimated Cost with Inflation	Percent of Total Need	Projected Funds Available Over 10 Years	
			Estimated Portion Covered by FLTP	Leveraging Target
Needs on Facilities Owned by Reclamation & Maintained by Non-Federal Entities	\$172M	77%	\$66M	\$106M
Needs on Facilities Owned & Maintained by Non-Federal Entities	\$48M	21.5%	\$18.5M	\$29.5M
Needs on Facilities Owned by Reclamation & Maintained by Other Federal Entities	\$2.7M	1.5%	\$1.5M	\$1.2M
TOTAL	\$222.7M	100%	\$86M	\$136.7M

All Areas Focus

Now that funding has been looked at from a narrower focus on specific investment categories, it is important to evaluate a broader strategy that balances investments across all of Reclamation's priority investment categories: (1) High Priority Projects and System Preservation, (2) Safety, (3) High-Use Recreation Sites, and (4) Leveraging Funds. Table 17 represents \$250.1 million of prioritized need across these four categories, out of the total identified 10-year need of \$608 million. Since this scenario combines investment focus areas, overlap in projects is removed. For example, in completing region-designated high priority projects, inevitably some projects that are also at high-use sites or have a high safety risk will be addressed, thus lowering the remaining number of projects left in these categories.

Similar to the previous tables, Table 17 uses the comparative percentages for each investment focus area to allocate the available base funding. Those percentages are then applied to the estimated funds assumed to be

available from FLTP only and determines the amount of leveraging Reclamation would need to target. Even with a successful leveraging program, it is anticipated that Reclamation may fall short of being able to fully fund all the projects associated with meeting the highest needs in each investment focus area.

The \$250.1 million in Table 17 represents a prioritized subset of the total need identified in Chapter 4 (\$608 million). This would require about 41 percent more in leveraging than the business as usual outlook projection (\$178 million). However, it is reasonable to set these anticipated system improvements as an achievable goal over the next 10 years. To this end, it is important to emphasize that the actual focus of investment and number of projects delivered and improvements made by Reclamation over the next 10 years will depend on how much funding becomes available through the reauthorization of FLTP, how much supplemental funding can be leveraged through partnering, and the actual design and construction costs at the time when projects are delivered.

Table 17. Estimated cost and projected funds available to address all focus areas

Types of Projects for All Area Focus	Estimated Cost with Inflation	Percent of Total Need	Projected Funds Available Over 10 Years	
			Estimated Portion Covered by FLTP	Leveraging Target
Complete All Projects Considered High Priority Projects and Highest Functional Class 1 Needs	\$146M	58%	\$50M	\$96M
Complete All Projects with High Turn Back Risk	\$8.6M	4%	\$3.5M	\$5.1M
Complete All Projects at High-Use Sites (At/Over-Capacity)	\$45M	18%	\$15M	\$30M
Complete All Projects with High Safety Risk	\$10M	4%	\$3.5M	\$6.5M
Structurally Deficient Bridges	\$40.5M	16%	\$14M	\$26.5M
TOTAL	\$250.1M	100%	\$86M	\$164.1M

Table 18 estimates the approximate range of projects and facility improvements that would be completed if Reclamation could address all the needs in Table 17. This is a rough estimate based on the limited information provided in the 2018-2019 Transportation Needs Assessment. The actual number of projects will depend on how needs in the assessment are packaged for delivery. If a need becomes a project, then it would be further scoped and its scope would determine the actual number of miles or facilities to be improved.

In conclusion, this 10-year implementation strategy focuses on analyzing the implications of considering different mid-range funding strategies based on competing need categories and varying levels of funding. It has been important to first break down costs and available funding in specific categories of need. This approach shows the tradeoffs and options that would result if Reclamation were to decide to concentrate funding in specific areas. It also shows how much additional funding would be needed on top of base FLTP funding to meet all the needs in each category. After looking more narrowly at putting greater emphasis in certain areas over others, the final strategy presents a more comprehensive investment strategy that seeks to balance investment across all priority investment focus areas.

Table 18. Estimated range of improvements if investment is made across all focus areas

Project Types for All Investment Focus Areas Option	Estimated Number of Projects to be Completed	Miles of Roadway Improved/Maintained	Estimated Bridges Repaired	Estimated Parking Lots and Boat Ramps Repaired
High Priority Projects ¹	50	850	30	40
Projects at Sites with High Turn Back Risk	6			
Projects at Sites Designated High-Use by Regions	30-45			
Projects at Sites with High Safety Risks	10-15			
Structurally Deficient Bridges	25			

¹ The number of actual projects for all needs in this table would be determined by how they are packaged for delivery.

Programmatic Implementation Strategies

The section above focuses on a discrete look at how best to meet project needs over the next 10 years via a bottom-up look at project needs. This section will take a top-down look at Reclamation's need from a strategic programming level. The implementation strategies presented are meant to guide Reclamation's Transportation Program in achieving the LRTP goals and objectives based on a broad set of strategies tied to their long-term goals and objectives. Final programming and funding decisions will be informed by programmatic implementation strategies Reclamation undertakes to assist in further identifying the need.

System Preservation Strategies

The System Preservation goal includes two objectives. The first objective focuses on maintaining good conditions on assets that provide access to all critical features. The second objective focuses on ensuring that access is multi-modal and maintained at varying condition levels depending on type of use. Over the next 10 years, Reclamation will focus on programmatic implementation strategies to help address current and future system preservation needs, as described below.

- In conjunction with the safety strategies, prioritize the rehabilitation of all structurally deficient bridges to be delivered over the next 10 years.
- Once RIP is complete, Reclamation will develop a PPP. Based on the recommended surface treatments that come from RIP, a PPP will help Reclamation transition from a worst-first investment strategy to a preservation strategy that prioritizes keeping good sections of pavement in good condition before investing in more expensive rehabilitation treatments on fair and poor sections of pavement. As surface preservation treatments are applied over the years, the 20-year life cycle of the preserved sections will be extended to 30–40 years, thus freeing up more program funds over time to rehabilitate high priority sections in fair and poor condition.

- In addition to investing in a PPP, Reclamation will work on developing a shelf of out-year backup projects. Having a good project shelf strategy will better position Reclamation to take advantage of unanticipated increases in program funding. In years when the construction costs come in less than the Engineer's Estimate, for example, having a set of shelved projects ready to put out for bid would give Reclamation the ability to deliver a larger program. Additionally, having a good project shelf would better position Reclamation to take advantage of discretionary grant opportunities that require projects that are "shovel ready."

Safety Strategies

The Safety goal includes two objectives. The first objective is focused on identifying safety issues and the second objective deals with developing countermeasures to address the safety issues identified. Reclamation will pursue the following implementation strategies over the next 10 years to work toward improving safety to and within Reclamation lands.

- Use the results of the 2018-2019 Transportation Needs Assessment, SMIS, and FARS data to develop a priority safety project list for each region.
- Once the safety project lists have been compiled, a Reclamation-wide safety study will be conducted to better define the locations, scope, costs, and tentative schedule for implementing the highest priority safety projects over the next 5 years.
- As part of the safety study, Reclamation will determine which projects are better suited to be funded out of FLTP and which ones are best to pursue with partners to fund through FLAP or another funding source.
- For all the low-cost safety countermeasures that would be FLTP eligible, Reclamation may consider a small safety program set-aside annually from FLTP to implement a bundle of these projects each year.
- For higher cost safety improvements, look for opportunities to bundle those needs with high priority road or bridge rehabilitation projects that will also be considered over the next 10 years.

Economic Generation Strategies

Reclamation's Economic Development goal correlates at the objective level with the System Preservation goal. Similar to the System Preservation objective of maintaining multi-modal access scaled appropriately to the type of use, both of the Economic Development objectives are focused on accommodating multiple types of use and scaling the transportation system to meet the needs of managing water delivery systems and hydropower generation while also allowing for visitor access. Economic Development implementation strategies Reclamation will pursue over the next 10 years are described below.

- Invest in high priority planning studies at high-use recreation sites. As the population in most western states continues to rise so does the demand for outdoor recreation. Reclamation is faced with the challenge of accommodating increased demand from the recreating public that wants enhanced access to Reclamation lands. Studying current and future visitation trends will help Reclamation determine where it may need to invest more of its transportation funds in the future to expand current capacity or diversify mobility options.
- In conjunction with Reclamation's Partnering goal, Reclamation will develop a strategic outreach plan that identifies opportunities to partner in regions that have high concentrations of federal lands and are also experiencing problems with chronic overcrowding and congestion. In these areas, there could be opportunities to leverage funds or generate new revenue streams through multi-agency coordination and regionally scaled transportation solutions focused on spreading recreational travel demand more evenly across the landscape.

Partnering and Outreach Strategies

Reclamation's Partnering goal is supported by an objective that promotes concurrently all the other goal areas. Partnering implementation strategies that Reclamation will focus on over the next 10 years include:

- Develop a 5-year strategic outreach plan that identifies the site locations in each region that could benefit the most from improved interconnectivity with adjacent public lands and the regional transportation network. This outreach plan would include a schedule that aligns with the planning cycles in each state, including FLAP Call for Projects schedules; determines the amount of state and local planning resources that could be leveraged; and scales the amount of FLPP funds that would be needed to fit within Reclamation's planning budget.
- Prioritize FLTP projects that are funding a FLAP match on Reclamation-owned transportation assets maintained by a non-federal operating entity.
- Work with managing partners to develop funding plans for transportation projects utilizing FLTP funds, FLAP funds, managing partner funds, and Reclamation funds. Discuss the best strategy and schedule to fund each transportation project involving a managing partner.

Performance Management and Monitoring

Performance based management and monitoring is essential to the success of the LRTP and a requirement for all FLMAs receiving FLTP funding. Identifying performance measures, linked to the goals of the LRTP, helps Reclamation track progress toward meeting those goals and objectives. Reclamation's performance management areas are derived from the LRTP goals and the FLTP Performance Management elements. The initial LRTP performance measures are predominantly programmatic and in support of developing a better baseline of performance management information. These initial measures, once achieved, will guide Reclamation's development of future measures or targets and assist in monitoring progress toward achieving the goals of the LRTP.

System Definition and Preservation:

This element is defined as the degree to which Reclamation's system is adequately defined, including minimum route ID standards; inventories of road, bridge, and trail conditions; and information about safety concerns; also, the degree to which Reclamation is able to effectively maintain its inventory.

LRTP Goal Area: System Preservation

Performance Measures:

- Complete the Cycle 1 Road Inventory.
- Examine creation of a Pavement Preservation Program to assist with maintenance of Reclamation roads.
- Develop a design shelf of road, bridge, and trail projects that can be advanced for construction with special influxes of funding from Congress.

Reduction of Bridge Deficiencies:

This element is defined as the degree to which Reclamation is reducing the number of deficient structures in the inventory.

LRTP Goal Areas: Safety and System Preservation

Performance Measures:

- Maintain Reclamation's Bridge Inventory.
- Identify funding strategies to reduce number of structurally deficient bridges in the inventory.

Improvement of Safety:

This element is defined as the degree to which Reclamation is identifying safety areas of concern and developing ways to address those concerns.

LRTP Goal Area: Safety

Performance Measure:

- Identify a list of sites needing safety assessments or Road Safety Audits.

Improving Recreational Access:

This element is defined as the degree to which Reclamation can address transportation needs at high-use recreation locations/federal economic generators and prevent turn back of partner-managed sites.

LRTP Goal Area: Economic Generation

Performance Measures:

- Identify a list of high-use sites that have a high risk of turn back to determine if there are transportation improvements needed.
- Provide education/resources to high-use and high-risk sites to develop transportation funding strategies involving FLTP, FLAP, managing partner, and Reclamation funds as appropriate.

Partnering:

This element is defined as the degree to which Reclamation can coordinate and leverage funds with partners on projects of mutual need.

LRTP Goal Area: Partnering

Performance Measures:

- Increase average annual FLAP funds going to Reclamation lands.
- Increase average annual Reclamation and partner funds going to transportation projects.
- Engage in state and local outreach as well as long range transportation planning updates to share Reclamation needs with partners and identify strategies to jointly fund mutual needs.

Transportation Planning:

This element is defined as the degree to which Reclamation can identify long-term goals and needs and develop strategies to address those needs.

LRTP Goal Areas: All

Performance Measures:

- Maintain 5-year update cycle for LRTP.
- Identify a process and timeframe to update Reclamation's Transportation Needs Assessment.
- Track FLTP project investment by the LRTP goal(s) being achieved.



Boysen Dam, Wyoming roadway improvements. (Reclamation)

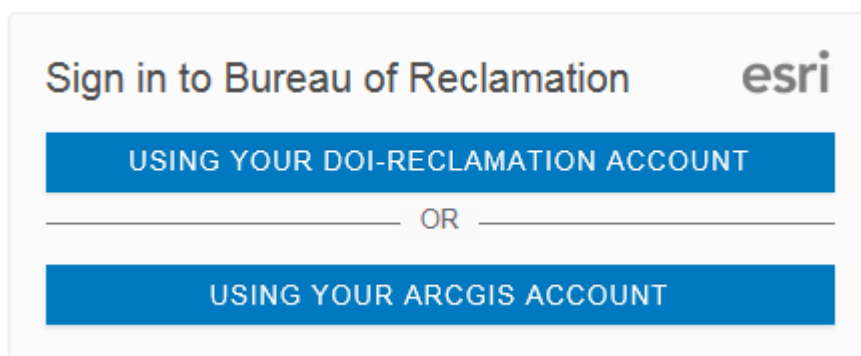
APPENDIX A. Reclamation Transportation Needs Assessment Tool Participant's User Guide

Regions were provided the following guidance to enter needs into the 2018-2019 ArcGIS Online database.

Reclamation ArcGIS Online General Entry Instructions

Access Information

1. The Reclamation Needs Assessment Tool uses the Reclamation ArcGIS Online (AGOL) platform. If you participated in the Reclamation Road and Parking Lot Inventory data call then you should already have access to AGOL. If you are new to AGOL, send Dan Staton (dstaton@usbr.gov) an email for instructions on how to get an AGOL account. Enter Reclamation's Transportation Needs Assessment web-map using the following link (copy and paste the link into Google Chrome for best results):
<https://usbr.maps.arcgis.com/apps/webappviewer/index.html?id=6acd4261d6ed43ddb39e52cca2114f21>. This is a direct URL to the map and will prompt you to log into the Reclamation AGOL platform.
2. Click the button for "Using your DOI-Reclamation Account".



New Transportation Need Instructions

3. Zoom in and pan to the location your transportation need is located.
4. To create a new transportation 'need', click the pencil icon in the upper left that says "Create Feature" when you hover over it.
5. Select the primary asset type that your need is related to. There will be an option to add a secondary asset type once you get into the form.
6. Mouse over to the map. Create a polygon at the chosen location by clicking once for each vertex of each 'Need' polygon. To finish the polygon, double click the mouse button. The polygons should be rough outlines of the approximate location of each need. They do not need to be and should not be exact. The point is to be able to see the polygon from a zoomed out view, not to

calculate an exact area or length.

7. After creating the 'Need' polygon a pop-up window should appear. If you do not like the polygon you created, you can click the 'Delete' button at the bottom of the window and try again. If you agree with the polygon created, proceed to answer the questions in the pop-up window related to the need/project that you drew. The **6 -Step Needs Assessment Questions** is also presented on Pages 3-6 of this document, which provides some guidance on how to answer the questions.
Important Note: The 6 Step Needs Assessment Questions should be completed for each 'Need' polygon created.
8. Click 'Close' in the pop-up window when you are done entering information.

Existing Transportation Need Editing Instructions

NOTE: The Needs Assessment map comes loaded with the FY17 Major Rehabilitation & Replacement (MR&R) projects related to transportation and all FY18 Federal Lands Transportation Program (FLTP) proposed projects. For each existing transportation project (MR&R and FLTP) the following information was populated: **major rehabilitation and replacement ID number**, approximate location and shape of the project, project title, and project description. The location and project information for each existing MR&R project should be verified by local staff and the 6 step questionnaire populated.

9. To view existing MR&R projects in your Area Office, zoom to your area office or field office (or click the Bookmark symbol in the upper right for a list of each area office).
10. In the bottom center of the map, click the up arrow icon.
11. This brings up a tabular view of the transportation needs. Click "Filter by map extent" to bring up a list of existing needs in your current view (zoom extent).
12. Highlight an individual row by clicking on the left most portion of the table for a particular row.
13. With the row selected, click "Zoom To" which will take you to the location of the transportation need.
14. **If you are entering information to an existing polygon, or need to re-visit a need to enter more information, click on the polygon, and the pop-up window with drop-downs will appear. Click the triple dot (ellipses) in the lower right of the pop up window to edit the existing shape.**
15. Click the 'Close' button to close the edit window which automatically saves the record.
16. You can also filter the table on transportation needs in your Region by clicking "Options" and selecting "Filter".
17. Then Click "Add a New Expression," change the drop down to "A.1 Location of USBR Need" and change the drop down to your Region.
18. Once you complete the transportation needs for your office, all values in the table should be populated.

Step 1. Fill in MR&R ID, Facility Name, and Needs Description	
Question/Field	Guidance and Definitions
Major Rehabilitation & Replacement (MR&R) ID Number	If MR&R number/code is already entered review and update using the editing instructions on page 2. If entering a new need that is not on the map yet, add an MR&R number if it exists, otherwise leave blank.
Insert Project Name	Example: <i>Senator Wash or XYZ Bridge</i>
Insert need description	Short description of the need or project: <i>Rehabilitate and pave Senator Wash Road including fix drainage and replace culverts</i>
Step 2. Complete Region	
Question/Field	Guidance and Definitions
A.1. Location of USBR Need	Choose the Region the need or project is located within.
Step 3. Complete Transportation Need Asset(s) Description	
Question/Field	Guidance and Definitions
B.1. Asset Type (Primary)	Select the primary asset type the need is related to.
B.2. Asset Type (Secondary; choice option for Projects that include two asset types)	Optional Question: If the need relates to two asset types, use this field to select the second asset type. If more than two assets types are included in the need, please pick the two primary assets and use Step 1 to further explain the larger project. (<i>For example: Rehabilitate access road and bridge, including replacement of several culverts</i>). Choose N/A if need does not include more than one asset type.

Step 3. Complete Transportation Need Asset(s) Description (*continued*)

B.3. Agency with Ownership	Choices include: <i>USBR, Other Federal, State, County, Water District or Water User Groups, Local Entity, Other Governmental Entity, and Tribal.</i> <i>Local Entity</i> generally encompasses a single town or city. <i>Other Governmental Entities</i> would include things like Metropolitan Planning Organizations, Councils of Government, and Regional Councils. Generally these agencies boundaries include multiple town, cities, and/or counties. MPOs are created by federal law to provide local, elected officials input into the planning and federal transportation funds to metropolitan areas with populations of greater than 50,000. Regional Councils, COGs, or similar, have state and locally defined boundaries and may be part of delivering a variety of federal, state, and local programs. If ownership of the facility is unknown, or this is a proposed facility that does not exist yet, leave blank.
B.3. Agency with Ownership (continued)	If you are unsure which group owns or maintains the asset, a best guess should be made.
B.4. Agency with O&M Responsibility	Choices are the same and follow the same guidance as <i>Agency with Ownership</i>. Choose the agency that operates and maintains the asset on which the project or need it located. If maintenance of the facility is unknown, or this is a proposed facility that does not exist yet, leave blank.

Step 4. Complete Transportation Need(s) Priority	
Question/Field	Guidance and Definitions
C.1. Priority of the Need Relative to Your Region	A <i>low, medium, or high</i> priority should be defined by your perspective/discipline, unless further guidance is provided to you by your Regional Office. The final list of all needs and priority ranks for your Region will go through an amendment process with each Region's FLTP coordinator.
Step 5. Complete Proposed Improvement(s) Description	
Question/Field	Guidance and Definitions
D.1. Proposed Improvement	Choose the answer that is your best guess of the type of project needed to address the need you have entered. <i>Capital</i> is generally defined as constructing or investing in something new, often using new or additional materials outside of what already exists on the facility. It can also include reconstruction of a facility that requires significant investment of new materials and work to bring it back to its original (or better) standard. <i>Maintenance</i> is generally defined as typical activities undertaken to preserve an asset that has been built, installed, bought, etc.
D.2. Estimated Improvement Cost	Estimate the range of cost for this improvement.

Step 6. Complete Need Area Assessment: answer questions below related to the transportation need	
Recreation Usage and Economic Generation	
Question/Field	Guidance and Definitions
RE.1. What type of site(s) does the asset access?	The answer chosen should relate to the stated need, the asset the project would be on to address that need, and what use that asset is accessing. If the site is a recreational use area that is also an economic generator for the area, choose <i>Recreation site</i> , and register the economic benefit in the last question of this section.
RE.2. What is the status of the existing access?	Report the current existing access on the asset to the site.
RE.3. What is the desired access to the site(s)?	If the desired access is new or different than the existing access, use this field to report desired.
RE.4. What is the level of visitation at the site?	Report from your perspective/discipline unless further guidance is provided to you by your Regional Office. Generally the visitation level should be based on a year round average. If there are only a few weekends a year when the site is over capacity then this would <u>not</u> be <i>High</i> . <i>High</i> would be used when there are numerous events/weekends/holidays where the site is over capacity throughout the year.
RE.5. What is the benefit to the Local Economy from this area?	A <i>low</i> , <i>medium</i> , or <i>high</i> benefit should be defined by your perspective/discipline, unless further guidance is provided to you by your Regional Office.
Safety	
S.1. What type of user does the Safety concern primarily relate to?	Report the most prominent user or user group the safety concern for this need relates to.
S.2. How big is the safety risk?	Base your rating on frequency and severity of the safety issue the need involves.
S.3. Select the most applicable type of Safety concern related to the 'Need'.	Report the most prominent type of safety concern related to the 'Need.'

System Preservation	
SP.1. What best describes the existing condition of the asset(s) associated to the Need?	Choose the existing condition of the asset(s) based on your perspective/discipline, unless further guidance is provided to you by your Regional Office.
SP. 2. What best describes the current, primary funding status?	Choose the source of primary funding for the project. If none has been identified or it is not known, choose <i>No funds committed/planned</i> .
SP.3. What best describes the current, secondary funding source?	If secondary funding is supporting the project, choose which source from the list. If there is no secondary funding source choose <i>Not Applicable</i> . If more than two sources of funding are already identified to fund the need, just enter the two predominant sources.
SP.4. How will the project improve the USBR Transportation System?	Answer based on your perspective/discipline, unless further guidance is provided to you by your Regional Office.
SP.5. What is the risk of 'Turn Back'?	Turn Back is defined as "an action taken by a Federal or non-Federal managing partner that ultimately results in having all recreation responsibilities being transferred or conveyed back to Reclamation for its sole management." It is Reclamation's goal to avoid Turn Backs if at all possible. If this area is managed by a managing partner, select a <i>low</i> , <i>medium</i> , or <i>high</i> Turn Back risk based on your perspective/discipline, unless further guidance is provided to you by your Regional Office. If this area is managed by Reclamation, then select 'Not Applicable.'

Have questions or need assistance? Please contact:

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- Dan Staton, O&M Structures Program Manager, USBR 303-445-3858 dstaton@usbr.gov
- Greg Gault, BORGIS System Manager/Architect 208-378-5325 ggault@usbr.gov

Appendix B. Summary Tables from the 2018-2019 Transportation Needs Assessment

Table. 1. Complete List of Entries with Basic Project Details

The following table includes the basic project information entered into the ArcGIS Online tool for the 354 entries in the 2018-2019 Transportation Needs Assessment. It includes all project information through Step 5, as explained in Appendix A. A few notes about the entries include:

- A. *Project Name*: A * indicates a project that the Region identified to be on a facility only providing *Administrative Access/Use Only*. There were 26 projects identified by the Regions to be on these facilities. Most funding available for transportation projects can only be used on facilities providing public access.
- C. *Region*: Originally entered before the DOI standardized region names across all DOI agencies. The table has been updated to reflect the DOI region each need falls within.
- J. *Estimated Median Cost for the Improvement*: Regions were provided a cost range to choose from in estimating the cost of the need entered. A median cost was assigned to each entry based on the range they chose, to assess overall magnitude of need for the LRTP. Further scoping will be needed to refine the costs for each need.

If a cell is blank, it means FLH and Reclamation were unable to determine/verify that answer with the Region in time to complete the LRTP analysis. The database remains online and can be edited by Reclamation staff. The online version should be referenced for the most up-to-date information. Information about each need is subject to change with further scoping.

A. Project Name	B. Need Description	C. Region	D. Primary Asset Type	E. Secondary Asset Type	F. Facility Ownership	G. Facility Operation & Maintenance	H. Region Priority	I. Improvement Type	J. Estimated Median Cost for Improvement
Center Point Rd	11 miles Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	County	County	High	Capital	\$2,500,000
Buster Heights Boat Ramp, Tent, and Swim Beach	Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	Medium	Capital	\$2,500,000
Hog Creek Campground	5 miles of Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$2,500,000
Folsom Granite Bay	Road repair	California-Great Basin	Parking Lot	Roadway	State	State	Low	Capital	\$2,500,000
Folsom Beals Point	Road Repair	California-Great Basin	Parking Lot	Roadway	State	State	Low	Capital	\$2,500,000
Lake Berryessa Concession Areas South	Road repair	California-Great Basin	Parking Lot	Roadway	USBR	USBR	Low	Capital	\$2,500,000
Folsom Dam	Repaving	California-Great Basin	Roadway	Parking Lot	USBR	USBR	High	Capital	\$2,500,000
Lake Berryessa Concession Areas West	Road repair	California-Great Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$2,500,000
Auburn Interface Roads	Road repair	California-Great Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$2,500,000
New Melones Recreation Area Access Roads	Road repair, sealing and striping	California-Great Basin	Roadway	Parking Lot	USBR	USBR	Medium	Capital	\$2,500,000
Folsom South Canal Bike Trail	Safety Improvements for Folsom South Canal Bike Trail	California-Great Basin	Trail	Not Applicable	USBR	USBR		Capital	\$2,500,000
Shasta Dam Visitor Center Parking Lot	Repair, seal coat, and re-stripe parking lot, and include PV shade structures	California-Great Basin	Parking Lot	Parking Lot	USBR	USBR	High	Maintenance	\$2,500,000
Oak Shores	Road surface repair	California-Great Basin	Parking Lot	Roadway	USBR	USBR	Medium	Maintenance	\$2,500,000
Juniper Canyon Road slide repairs	Repair and reinforce slide areas on Juniper Canyon Road.	Columbia-Pacific Northwest	Roadway	Roadway	USBR	County	High	Capital	\$2,500,000
Owyhee Road Repairs	Design road to improve sight distance , widen and replace sections were asphalt is crumbling; 3.5 m	Columbia-Pacific Northwest	Roadway	Roadway	County	County	High	Capital	\$2,500,000
Tualatin Project - Buried Irrigation Pipe System -	Plan to replace roads when lateral pipes are excavated and replaced in entire system; locate pipes	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	County	High	Capital	\$2,500,000

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Thief Valley Dam Road Realignment; 1.3 miles	Realign road when dam is raised	Columbia-Pacific Northwest	Roadway	Not Applicable	County	County	Medium	Capital	\$2,500,000
American Falls, Willow Bay Rec Area	Redesign for parking lots, resurface asphalt roads; 3 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	Local Entity (Town, City, Public Works, etc.)	Medium	Planning Study/RSA/PEL/Corridor Study	\$2,500,000
Lake Owyhee State Park Transportation Facilities	Widen roads in State Park; chipseal roads and parking lots; 2.5 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	High	Capital	\$2,500,000
Cascade State Parks Road Repair	3.5 miles of Road Repairs	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	High	Maintenance	\$2,500,000
Emigrant Dam alternative access road improvements	Acquire right to use road as alternate access to Emigrant dam and harded road for all seasons	Columbia-Pacific Northwest	Roadway			USBR	Low	Capital	\$2,500,000
American Falls	Reconstruct Concrete Trail; 3 miles	Columbia-Pacific Northwest	Trail	Trail	USBR	USBR	Medium	Capital	\$2,500,000
McGrath Road	Construct new vehicle bridge (.1 miles) at McGrath Road.	Columbia-Pacific Northwest	Bridge	Roadway	USBR	Water District or Water User Groups	Low	Capital	\$2,500,000
BPA Power Line Access Bridge	Construct new vehicle bridge (.1 miles) to access BPA power line.*	Columbia-Pacific Northwest	Bridge	Roadway	USBR	Water District or Water User Groups	Low	Capital	\$2,500,000
North Unit Main Canal - "Radlands"	Reinforce barriers along 7 miles to discourage mud-bogging on canal embankments.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	Water District or Water User Groups	Low	Maintenance	\$2,500,000
Turn bays for Hwy 97 to Haystack	Construct turn lanes on Hwy 97 to Jericho Rd for safe ingress/egress to Haystack.	Columbia-Pacific Northwest	Roadway					Capital	\$2,500,000
Barnes Butte Trail	Design and construct pedestrian trail through IronHorse.	Columbia-Pacific Northwest	Trail					Capital	\$2,500,000
Alternate route for scenic bikeway	Design and contr. bike trail on canal service road as alternate (off-vehicle road) scenic bike trl.	Columbia-Pacific Northwest	Trail					Capital	\$2,500,000
Imperial Dam	Rd repair Sen Wash Rd/McKinley Rd to Sen Wash Rd/County S24 & Sen Wash Rd/Ferguson Rd to So End Loop	Lower Colorado Basin	Roadway	Not Applicable	USBR	County	Low	Capital	\$2,500,000
Imperial Dam	Road repair Senator Wash Road/McKinley Road to Squaw Lake	Lower Colorado Basin	Roadway	Not Applicable	USBR	County	Low	Capital	\$2,500,000

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Parker Dam - Bldgs & Grounds	Access road and guardrail replacement	Lower Colorado Basin	Roadway	Parking Lot	USBR	USBR	Medium	Capital	\$2,500,000
Hoover Dam - Bldgs & Grounds	Rock fall mitigation	Lower Colorado Basin	Roadway	Not Applicable	USBR	USBR	Medium	Maintenance	\$2,500,000
Camp O Road	Increase public access and safety	Lower Colorado Basin	Roadway		USBR	Water District or Water User Groups	Medium	Capital	\$2,500,000
Laguna Dam	Road repair Gila Gravity Mitty Boat Ramp to North Boat Ramp	Lower Colorado Basin	Roadway	Boat Ramp	USBR	Water District or Water User Groups	Medium	Capital	\$2,500,000
WMA roads west	1-5 miles build up with gravel*	Missouri Basin	Roadway	Not Applicable	USBR	State	Low	Maintenance	\$2,500,000
Goose Bay north	1-5 miles build up with gravel	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$2,500,000
Sumner Dam	Rock bridge repair; 7-8 bridges needing repair; 2 major structures needing repair	Upper Colorado Basin	Bridge	Bridge	USBR	State	Low	Capital	\$2,500,000
El Vado State Park Dam Bridge	Repair dam bridge	Upper Colorado Basin	Bridge	Roadway	USBR	State	Medium	Capital	\$2,500,000
Vega State Park Roads	Repave all paved roads in Vega State Park	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Low	Capital	\$2,500,000
Crawford Park Roads Repave	Repaving and resurface of Interior roads in Crawford State Park;	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Low	Capital	\$2,500,000
Rio Grande Complex	Access road repair; possible resurfacing;	Upper Colorado Basin	Roadway	Roadway	USBR	State	Medium	Capital	\$2,500,000
Navajo State Park Roads	~ 3.5 miles of Repave interior roads of Navajo State Park (Colorado Side)	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
El Vado Lake State Park	Main Access Road Rehab	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
Elephant Butte Lake State Park	Lakeshore Drive Repaving	Upper Colorado Basin	Roadway	Not Applicable	USBR	State	Medium	Capital	\$2,500,000
Sumner Lake State Park Section #2	Repave roads in State Park; Connected to need 566	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
Sumner Lake State Park	Repave roads in state park; part of need 566	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
Brantley Lake State Park Road Section 1	Repave roads in state park; part of need 568	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000

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Brantley Lake State Park Roads Section 2	Repave roads in state park; part of need 567	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
Caballo Lake State Park Improvements	Repave roads Riverside Campground	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Capital	\$2,500,000
Fontenelle Dam	Powerplant Access Rd.; 1.5 miles; pave road; overlook improvements	Upper Colorado Basin	Roadway	Parking Lot	USBR	USBR	High	Capital	\$2,500,000
Elephant Butte Damsite	~ 2 miles of Road rehabilitation of Damsite and Recreation Areas.	Upper Colorado Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$2,500,000
Morrow Point Dam; 1.5 miles	pulverize and repave w/ 3 in asphalt	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	Medium	Capital	\$2,500,000
Blue Mesa Dam	Gravel to asphalt; Access Road Repair; 1.5 miles	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	Medium	Capital	\$2,500,000
Flaming Gorge Dam	Pave Powerplant Rd. partial paving; repair and resurface	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	Medium	Capital	\$2,500,000
Ridges Basin Dam	Connect Powerline to Dam access*	Upper Colorado Basin	Roadway	Bridge	USBR	Water District or Water User Groups	Low	Capital	\$2,500,000
Sumner Lake State Park	Dam bridge	Upper Colorado Basin	Bridge	Roadway	USBR		Medium	Capital	\$2,500,000
El Vado Lake State Park Bridge Rehab	Dam bridge rehabilitation	Upper Colorado Basin	Bridge	Not Applicable	USBR		Medium	Capital	\$2,500,000
Percha Dam State Park	Entrance bridge and road rehab	Upper Colorado Basin	Roadway	Bridge	USBR		Medium	Capital	\$2,500,000
Visitor Center Parking Lot	Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	Medium	Capital	\$750,000
Maidu Drive	Resurface of road	California-Great Basin	Roadway		USBR	Other Governmental Entity (MPO, COG, Regional Councils, etc.)	Medium	Capital	\$750,000
Nimbus Flat and Fishery	parking lot repair	California-Great Basin	Parking Lot	Roadway	USBR	State	Low	Capital	\$750,000
Folsom Folsom Point	Road repair	California-Great Basin	Parking Lot	Boat Ramp	State	State	Low	Capital	\$750,000
Folsom Browns Ravine	Road repair	California-Great Basin	Parking Lot	Roadway	State	State	Low	Capital	\$750,000

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Negro Bar	Road repair	California-Great Basin	Parking Lot	Roadway	State	State	Low	Capital	\$750,000
Mammoth Bar	Parking Lot reorientation and flood protecting	California-Great Basin	Parking Lot	Roadway	State	State	Low	Capital	\$750,000
Auburn Confluence Parking	Realign roadside parking	California-Great Basin	Parking Lot	Roadway	State	State	Medium	Capital	\$750,000
Folsom Peninsula	road repair	California-Great Basin	Roadway	Parking Lot	State	State	Low	Capital	\$750,000
Sliger Mine-Ruck-a-Chucky	Road repair	California-Great Basin	Roadway		State	State	Low	Capital	\$750,000
Birdsall Road	Raft take-out eliminated during significant flood event	California-Great Basin	Roadway	Boat Ramp	USBR	State	Medium	Capital	\$750,000
Ponderosa Road	grading and resurfacing, drainage	California-Great Basin	Roadway		USBR	State	Medium	Capital	\$750,000
Lake Clementine roads	Road repair	California-Great Basin	Roadway	Parking Lot	State	State	Medium	Capital	\$750,000
Jedediah Smith Trail	trail repair/maintenance	California-Great Basin	Trail	Culvert	USBR	State	Low	Capital	\$750,000
Lahontan State Park Chipseal	Pavement Maintenance Requirements	California-Great Basin	Roadway	Roadway	USBR	State	Low	Maintenance	\$750,000
Parking Lot and Road Maintenance	Existing roads and parking lots need maintenance	California-Great Basin	Roadway	Parking Lot	USBR	State	Medium	Maintenance	\$750,000
Steele Canyon Boat Ramp	Replace boat ramp surface undercut by erosion	California-Great Basin	Boat Ramp		USBR	USBR	Medium	Capital	\$750,000
Ponderosa Bridge	bridge replacement	California-Great Basin	Bridge		USBR	USBR	Medium	Capital	\$750,000
Keswick Office Building (KOB)	Grade, pave, and stripe the parking areas around the KOB*	California-Great Basin	Parking Lot	Parking Lot	USBR	USBR	High	Capital	\$750,000
Lake Berryessa Concession Areas Pleasure Cove	Road Repair	California-Great Basin	Parking Lot	Roadway	USBR	USBR	Low	Capital	\$750,000
Lake Berryessa Concession Area Markley Cove	Road Repair	California-Great Basin	Parking Lot	Roadway	USBR	USBR	Low	Capital	\$750,000
Capell Cove	Resurface	California-Great Basin	Parking Lot	Boat Ramp	USBR	USBR	Medium	Capital	\$750,000
Knickerbocker roads	Road repair	California-Great Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$750,000
Melones Dam Area	Road repair	California-Great Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$750,000
Yankee Jims	Road Repair in coordination w/county bridge replacement	California-Great Basin	Roadway	Bridge	USBR	USBR	Medium	Capital	\$750,000
Tule Lake Leases	Road Improvements	California-Great Basin	Roadway		Other Federal	USBR		Capital	\$750,000

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Clear Creek Bridge Guard Rail	Install a guardrail system that meets current AASHTO standards.	California-Great Basin	Bridge	Roadway	USBR	USBR	Low	Maintenance	\$750,000
Nimbus Powerplant	Powerplant Improvements	California-Great Basin	Parking Lot					Capital	\$750,000
San Justo Dam	Move road off Dike	California-Great Basin	Roadway					Capital	\$750,000
East Side Road	Resurfacing with aggregate, re-grading, culvert repairs	California-Great Basin	Roadway	Culvert	USBR		Medium	Maintenance	\$750,000
American Falls; Sportsman Park	Resurface asphalt roads and parking lot; 1.5 miles	Columbia-Pacific Northwest	Parking Lot	Roadway	USBR	County	Medium	Capital	\$750,000
Emigrant Reservoir - Greensprings Spur Road - Surf	Pave road to improve recreation access in all seasons.	Columbia-Pacific Northwest	Roadway		USBR	County	Low	Capital	\$750,000
Emigarnt Reservoir - Sampson Creek Road - Recreati	Pave road to improve recreation access in all season; 5 miles	Columbia-Pacific Northwest	Roadway		USBR	County	Low	Capital	\$750,000
Emigrant Reservoir - Sampson Creek Road - Intersec	Reconstruct intersection of road with Hwy 66 to Jackson County stds & dedicate road to county; .25m	Columbia-Pacific Northwest	Roadway		USBR	County	Low	Capital	\$750,000
Emig Res.Sampson Creek Road - hill cut improvement	Cut road further into hillside to widen road to provide alternate access to Emigrant dam; .25 miles	Columbia-Pacific Northwest	Roadway		USBR	County	Low	Capital	\$750,000
Thief Valley Relocation	Relocate campground if dam is raised; .7 miles	Columbia-Pacific Northwest	Roadway	Boat Ramp	USBR	County	Low	Capital	\$750,000
Bully Creek Accessibility Upgrades	Replace bathrooms/showers with accessible buildings	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	County	Medium	Capital	\$750,000
Upper Mann Creek Realignment	Realign road to improve line of sight; .5 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	County	County	Medium	Capital	\$750,000
Jackson Road Re-alignment	Realign road to improve line of sight	Columbia-Pacific Northwest	Roadway	Not Applicable	County	County	Medium	Capital	\$750,000
Teton Canyon Access Road Repair	Chip seal Teton Canyon Access Rd.	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	County	High	Maintenance	\$750,000
Yeoman Bridge	Construct new vehicle bridge (.25 miles)over North Unit Main Canal at Yeoman Road.	Columbia-Pacific Northwest	Bridge	Roadway		Local Entity(Town, City, Public Works, etc.)	High	Capital	\$750,000

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Wickiup Res Cascade Lakes Hwy Davis Creek crossing	Reconfigure culvert to allow safe passage for swimmers under the crossing at low pool.	Columbia-Pacific Northwest	Culvert	Roadway	County	Other Federal	High	Capital	\$750,000
Hyatt Reservoir - Recreation Area Sewage Plant - A	Reconstruct road to access sewage plant and provide all weather access; 1 mile	Columbia-Pacific Northwest	Roadway		USBR	Other Federal	Low	Capital	\$750,000
Unity Boat Ramp Realignment	Realign Boat Ramp , improve reservoir access	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	State	High	Capital	\$750,000
Crooked River ford	Improve ford to allow vehicle crossing most of the year.	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	State	Medium	Capital	\$750,000
Unity Parking Lot Upgrades	Parking Lot Redesign and Expansion	Columbia-Pacific Northwest	Parking Lot	Boat Ramp	USBR	State	Medium	Capital	\$750,000
Juniper Canyon Road slide repairs	Repair and reinforce slide area on county road.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	State	High	Capital	\$750,000
Roberts Bay Road	Improve road design and surface to provide safe passage for recreational vehicles.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	State	High	Capital	\$750,000
Prineville Reservoir - County Boat Ramp Road - Sur	Pave the road to the county boat ramp; 2 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	State	Low	Capital	\$750,000
Sugarloaf Trails Upgrade	Upgrade trails with concrete to meet accessibility standards; 2.5 miles	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	State	High	Capital	\$750,000
Steamboat Rock Chip Seal	Large cracks perpendicular to roadway. Repair 4.5 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	Medium	Maintenance	\$750,000
Bowman Dam - Hwy Access Route - Crooked Riv Bikeway	Find ways to improve route to separate bikes from vehicle traffic; 20 miles	Columbia-Pacific Northwest	Trail	Roadway	State	State	Low	Planning Study/RSA/PEL/Corridor Study	\$750,000
Emigrant Dam access road	Acquire right to use the road to access Emigrant Dam; 10 miles*	Columbia-Pacific Northwest	Roadway			USBR	High	Agreement(s)	\$750,000
Buelah Boat Ramp Replacment	Replace Boat ramp and Boat dock	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	USBR	Low	Capital	\$750,000
C-Line Pumping Plant Access Brid	néº Needs major rehabilitation or replacement	Columbia-Pacific Northwest	Bridge	Roadway	USBR	USBR	High	Capital	\$750,000
N. Unit Main Hwy 97 at Brown Rd and Meadowlark Rd	Improve connections to provide safer highway crossings for ditchriders.	Columbia-Pacific Northwest	Culvert	Roadway	USBR	USBR	Low	Capital	\$750,000

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Mann Creek Road Paving; .5 miles	regrade and pave access road	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	High	Capital	\$750,000
N. Unit Main Canal Willow Crk Siphon Access Road	Survey alignment of connecting road to siphon switchbacks and wasteway. Acquire ROW. Improve road*	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$750,000
Emigrant Dam alternative access road	Confirm right to use road as alternate access to Emigrant dam and harden road for all seasons.*	Columbia-Pacific Northwest	Roadway			USBR	Low	Capital	\$750,000
Scooteney Day Use TN	Evaluate and re-gravel 8 miles of necessary road	Columbia-Pacific Northwest	Roadway	Trail	USBR	USBR	Low	Capital	\$750,000
O'Sullivan Dam Toe Road	Construction a single lane road along the downstream toe of O'Sullivan Dam; 3 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$750,000
N. Unit Main Canal Big Cut Access Road & Slope Ref	Reinforce hillsides to keep ditchrider road open.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$750,000
Sampson Creek Bridge	Reconstruct bridge to improve load-bearing to provide alternate access to Emigrant dam.	Columbia-Pacific Northwest	Bridge		USBR	Water District or Water User Groups	Low	Capital	\$750,000
Pioneer Loop Road Bridge	Construct new vehicle bridge (.1 miles) and tunnel sewer interceptor under North Unit Main Canal.	Columbia-Pacific Northwest	Bridge	Roadway		Water District or Water User Groups	Low	Capital	\$750,000
Ochoco - Service Roads - Vehicle Gates - Installation	Install solar powered gates on all intersections of roads and earthen laterals.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	Water District or Water User Groups	Medium	Capital	\$750,000
North Unit Main Canal - Vehicle Gates - Install	Install solar powered gates on intersections of roads with laterals.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	Water District or Water User Groups	Low	Operations	\$750,000
North Unit Main Canal - Bend to Burma	Study feasibility of an urban canal trail or transit train along 35 miles; Bend to Smith Rock SP.	Columbia-Pacific Northwest	Trail	Roadway		Water District or Water User Groups	Low	Planning Study/RSA/PEL/Corridor Study	\$750,000
Parking lot for extension canal pump	Remove gas line cathodic protection and guardrail so that district can access irrigation pump.	Columbia-Pacific Northwest	Parking Lot					Capital	\$750,000
Imperial Dam	Road repair Senator Wash Road/McKinley Road to Imperial Dam	Lower Colorado Basin	Roadway	Not Applicable	USBR	County	Low	Capital	\$750,000

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Horse Mesa Dam - Bldgs & Grounds	Road improvements	Lower Colorado Basin	Roadway	Not Applicable	USBR	State	Low	Maintenance	\$750,000
Davis Dam - Bldgs & Grounds	Replace section of Davis Dam Access Road and visitor parking lot	Lower Colorado Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$750,000
Laguna Dam	Road repair Gila Gravity Laguna Dam to Mittry Boat Ramp	Lower Colorado Basin	Roadway	Boat Ramp	USBR	Water District or Water User Groups	Medium	Capital	\$750,000
Kirwin Res. roads & boat ramps	Rip rap erosion control to protect access roads and boat ramp upgrades	Missouri Basin	Roadway	Boat Ramp	USBR	Other Federal	Medium	Capital	\$750,000
Shadehill Rec Area Shoreline stabilization	Main access to Rec area is threatened by shoreline erosion unable to move due boundary proximity	Missouri Basin	Roadway	Transit System	USBR	State	High	Capital	\$750,000
Dickinson biking/walking bridge	move old canal bridge into crossing	Missouri Basin	Bridge	Trail	USBR	USBR	Medium	Capital	\$750,000
Lake Tschida access road	reinforce road	Missouri Basin	Roadway		County	USBR	High	Capital	\$750,000
East Shore Drive South road	Less than a mile of millings, possible FLAP	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$750,000
Medicine Creek Dam Road County Rd 728	5 miles of Resurfacing and replacing guard railing	Missouri Basin	Roadway		USBR	USBR	Low	Capital	\$750,000
Crittendon DUA road	Less than a mile build up with gravel	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Maintenance	\$750,000
Alcova Res Cabin Area road repairs	Roads at cabin need improvement for public safety for first responder access	Upper Colorado Basin	Roadway		USBR	County	Low	Maintenance	\$750,000
Chama River Foot Bridge	Redesign and rebuild structurally unsound foot bridge over the Rio Chama	Upper Colorado Basin	Bridge	Trail	USBR	State	Medium	Capital	\$750,000
Resurfsce Navajo Lake State Park Roads	Gravel and regrade gravel sections 3 miles; paved 5.5 miles	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Low	Capital	\$750,000
Miracle Mile Access road & boat ramps	Improve access road and install two concrete boat ramps	Upper Colorado Basin	Roadway	Boat Ramp	USBR	State	Medium	Capital	\$750,000
Animas-La Plata	Replace railcar superstructure bridge on the Mitigation Lands Area with a properly engineered bridge*	Upper Colorado Basin	Bridge	Roadway	USBR	USBR	Medium	Capital	\$750,000
Shoshone River Access site	Resurface road & parking lot-improve drainage	Upper Colorado Basin	Parking Lot	Roadway	USBR	USBR	Low	Capital	\$750,000

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Ocean Lake Access Roads	Access roads sinking- raise road surfaces	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$750,000
Deaver Reservoir Access Roads	Road maintenance and resurfacing	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$750,000
Heart Mountain Canal Access Bridge	Construct bridge to provide public access across canal	Upper Colorado Basin	Bridge	Roadway	USBR	Water District or Water User Groups	Medium	Capital	\$750,000
Ridges Basin Dam	Rehab Power Line Rd;	Upper Colorado Basin	Roadway	Trail	USBR	Water District or Water User Groups	Low	Capital	\$750,000
Towaoc Canal	Rehab All Access roads; several short seg	Upper Colorado Basin	Roadway		USBR	Water District or Water User Groups		Capital	\$750,000
Sites-Lodoga Road Reconstruction Project	Roadway reconstruction to road base/hill cut expansion/widen shoulders/rock fall prevent/metal rail	California-Great Basin	Roadway		County	County	Medium	Capital	\$6,000,000
Hagg Lake Road Slide Repairs and Anchor Wall	Construct anchor wall to stabilize potential landslide (.24 miles)	Columbia-Pacific Northwest	Roadway	Not Applicable	County	County	Low	Capital	\$6,000,000
Teton River Canyon	Redesign and rehabilitate overlook, admin site, parking lots, roads, & 2 access points on river	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	High	Capital	\$6,000,000
Grand Coulee Dam Visitor Center Parking Lot Areas	1 mile of Asphalt Road repair; also repair parking areas at the roadside interp sites	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	High	Maintenance	\$6,000,000
Horse Mesa Dam - Bldgs & Grounds	Rockfall mitigation	Lower Colorado Basin	Roadway	Not Applicable	USBR	State	Low	Maintenance	\$6,000,000
Yuma Desalting Plant	Railroad spur repair	Lower Colorado Basin	Transit System	Not Applicable	USBR	USBR	Low	Capital	\$6,000,000
Belle Fourche Reservoir Suzie Peak Road paving	Need for Suzie Peak Road Paving to create better access to Recreation and reduce maintenance (4.4 m)	Missouri Basin	Roadway	Parking Lot	USBR	USBR	High	Capital	\$6,000,000
Crystal East Portal Road	Paving of East Portal Road, 5 miles at steepest grade; resurfacing and repairs; 7.1 miles	Upper Colorado Basin	Roadway	Not Applicable	USBR	USBR	High	Capital	\$6,000,000
Grassy Hollow Rd	3 miles Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	County	County	High	Capital	\$250,000

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Potapo Pass Boat Ramp Parking	Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	High	Capital	\$250,000
Hog Creek Day Use Parking	Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	High	Capital	\$250,000
Turkey Pass, Calyspo Cove Parking Areas	Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	High	Capital	\$250,000
Fishermans Point and Little River BR Parking	Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	High	Capital	\$250,000
Alameda Dr.	1.5 miles of Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$250,000
Potapo Pass campground Rd	2 miles Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$250,000
Turkey Pass, Calyspo Cover rds	5 miles of Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$250,000
South Dam Rd	Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$250,000
Little River and Fishermans Point Rds	1 mile of Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	High	Capital	\$250,000
Buster Heights Campground and Boat Ramp Rd	2 miles Overlay asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	Medium	Capital	\$250,000
Visitor Center Rd	5 miles Over Lay Asphalt	Arkansas-Rio Grande-Texas Gulf	Roadway	Not Applicable	USBR	State	Medium	Capital	\$250,000
Altus Dam	Canal bridge repair	Arkansas-Rio Grande-Texas Gulf	Bridge					Capital	\$250,000
Repave Stampede Dam Road	Pavement is cracking along dam crest in multiple locations	California-Great Basin	Roadway	Roadway	USBR	Other Federal	Low	Maintenance	\$250,000
Prosser Creek Road Rehabilitation	High maintenance requirements after winter closure and infrequent maintenance from County	California-Great Basin	Roadway	Roadway	Other Federal	Other Federal	Low	Maintenance	\$250,000
Rattlesnake Bar	Parking lot maintenance and repair	California-Great Basin	Parking Lot	Boat Ramp	State	State	Low	Maintenance	\$250,000
Salmon Falls	Parking lot maintenance and resurface	California-Great Basin	Parking Lot	Boat Ramp	State	State	Low	Maintenance	\$250,000

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Putah Canyon Ramp	Replace failing boat ramp currently undercutting from erosion	California-Great Basin	Boat Ramp		USBR	USBR	Medium	Capital	\$250,000
Mountain Quarries Bridge	Safety Inspection and replacement of railing system for Mountain Quarries Bridge.	California-Great Basin	Bridge	Not Applicable	USBR	USBR		Capital	\$250,000
Clear Lake Dam Road	Periodic grading and maintenance of roadway*	California-Great Basin	Roadway	Roadway	Other Federal	USBR	High	Maintenance	\$250,000
Livingston Stone N'tnl Fish Hatchery access road	Repair/Replace/Re-condition pavement, and re-paint all lines	California-Great Basin	Roadway	Roadway	USBR	USBR	High	Maintenance	\$250,000
Keswick Powerplant access road	Crack seal, and re-coat road and parking area to Keswick Powerplant	California-Great Basin	Roadway	Roadway	USBR	USBR	High	Maintenance	\$250,000
Putah South Canal	Road Maintenance	California-Great Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
Area K	Periodic grading and maintenance of roadway	California-Great Basin	Roadway	Roadway	Other Federal	USBR	Medium	Maintenance	\$250,000
A Canal Recreation Trail	Periodic crack sealing and maintenance of pavement	California-Great Basin	Trail	Trail	USBR	USBR	Low	Maintenance	\$250,000
Lahontan Dam Road Chipseal	Maintenance as required for paved access	California-Great Basin	Roadway		USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
Power Plant Road Rehabilitation	Re-grade and add gravel to allow easier access during adverse weather conditions	California-Great Basin	Roadway		USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
San Luis Canal	Bridge Sesimic refitting	California-Great Basin	Bridge					Capital	\$250,000
New Melones Restroom	Restroom replacement	California-Great Basin	Parking Lot					Capital	\$250,000
Tracy Fish Collection Facility	Replace boatdock	California-Great Basin	Parking Lot					Capital	\$250,000
New Melones Entrance Fee Station	Fee Station Repairs	California-Great Basin	Roadway					Capital	\$250,000
Keswick Dam	Security fencing and access road	California-Great Basin	Roadway					Capital	\$250,000
Gordan Gulch Parking Area Expansion	Construct additional parking	Columbia-Pacific Northwest	Parking Lot	Boat Ramp	USBR	County	High	Capital	\$250,000
Storm Breacker Road Repaving	stabilize subsurface to prevent road slumping and replace cattle guard	Columbia-Pacific Northwest	Roadway	Culvert	USBR	County	High	Capital	\$250,000
Ririe, Juniper Recreation Area	Road & Parking lot Repair; resurface all roads (asphalt and gravel); 2.5 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	County	Medium	Capital	\$250,000

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Emigrant Reservoir - Fishing & Swimming Rocks Tr	Create an accessible trail along pool's edge to provide access to fishing and swimming spots; .25m	Columbia-Pacific Northwest	Trail	Parking Lot	USBR	County	Low	Capital	\$250,000
Prineville Reservoir - Salt Creek Road - Periodic	Periodically grade, gravel and apply dust abatement to gravel road; 20 miles	Columbia-Pacific Northwest	Roadway	Roadway	County	County	Low	Maintenance	\$250,000
Scoggins Spillway Bridge	Evaluate .1 miles of guardrails for compliance with current standards.	Columbia-Pacific Northwest	Bridge	Roadway	USBR	County	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Smith Rock to Haystack	Study potential to provide a trail from Smith Rock State Park to Haystack Reservoir.	Columbia-Pacific Northwest	Trail	Roadway	County	County	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Black Canyon Dam Road Office Access; .25 miles	Cut and replace road sections that are crumbling	Columbia-Pacific Northwest	Roadway	Roadway	Local Entity(Town, City, Public Works, etc.)	Local Entity(Town, City, Public Works, etc.)	High	Maintenance	\$250,000
Donnelly Maintenance	Regrade and re-gravel roads and parking; .25 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	Local Entity(Town, City, Public Works, etc.)	Low	Maintenance	\$250,000
North Dam Park Resurfacing	All roads and parking areas need to be re- graveled, unnecessary roads should be closed.	Columbia-Pacific Northwest	Roadway	Trail	USBR	Local Entity(Town, City, Public Works, etc.)	Low	Maintenance	\$250,000
Hagg Lake Private Access Easements Survey & Doc	Locate and survey as-constructed alignments of private access easements (2 mile created by contract.	Columbia-Pacific Northwest	Roadway	Not Applicable	Local Entity(Town, City, Public Works, etc.)	Local Entity(Town, City, Public Works, etc.)	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Hagg Lake Private Access Easement: Survey and Buil	Survey private access easement created by contract but not deeded.	Columbia-Pacific Northwest	Roadway	Not Applicable	Local Entity(Town, City, Public Works, etc.)	Local Entity(Town, City, Public Works, etc.)	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Wasco Dam Access Road-OHV Access Point Closures	Assist USFS to curtail off-road vehicle access points from dam access road.	Columbia-Pacific Northwest	Roadway	Trail	Other Federal	Other Federal	Low	Agreement(s)	\$250,000
Emigrant Reservoir - Carter Creek Siphon - Road Dr	Improve drainage on road to protect downslope and access to siphon;.25 miles	Columbia-Pacific Northwest	Roadway	Culvert	USBR	Other Federal	Low	Capital	\$250,000
Wickiup Dam - Subdivision Access Roads	Pave subdivision access roads to improve fire egress and winter emergency access; 20 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	Other Federal	Other Federal	Low	Capital	\$250,000

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Deadwood Airstrip	Airstrip needs tree removal, signage, and grading; .5 miles	Columbia-Pacific Northwest	Parking Lot	Not Applicable	Other Federal	Other Federal	Medium	Maintenance	\$250,000
Wickiup Dam - Burgess Road & USFS Rd 44 - All Weat	Periodically grade, gravel, and use dust abatement -- or pave the road to Wickiup; 20 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	Other Federal	Other Federal	Low	Maintenance	\$250,000
Deadwood Road Maintenance	Grading Roads; 5.5 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	State	Other Federal	Low	Maintenance	\$250,000
Deadwood Access Roads Repair	Grading and re-gravel	Columbia-Pacific Northwest	Roadway	Not Applicable	Other Federal	Other Federal	Medium	Maintenance	\$250,000
Concession boat ramp	Remove or relocate boat ramp when concession expires.	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	State	Medium	Capital	\$250,000
Prineville Reservoir - Powder House Cove - Boat Ra	Extend boat ramp to low pool; .25 miles	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	State	Medium	Capital	\$250,000
Bowman - ford	Improve ford across Crooked River below Bowman Dam.	Columbia-Pacific Northwest	Bridge	Roadway	USBR	State	High	Capital	\$250,000
Prineville Reservoir - Reservoir Bridge - Design a	Construct a bridge to connect North and South shores; .1 miles	Columbia-Pacific Northwest	Bridge	Roadway	USBR	State	High	Capital	\$250,000
N. Unit Main Box Hwy Culvert - Lat M-58 and Hwy 97	Enlarge box culvert to prevent backflow and spills.*	Columbia-Pacific Northwest	Culvert	Roadway	USBR	State	Low	Capital	\$250,000
Palisades	Resurface parking lot and replace interpretive signs	Columbia-Pacific Northwest	Parking Lot	Parking Lot	State	State	Low	Capital	\$250,000
Bottero Subdivision Access Rd	Improve road to county standards and dedicate it to the county.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	State	Medium	Capital	\$250,000
Bully Creek Pathway Replacement	vegetation is growing through the asphalt and the trail no longer meets standards, crumbling; .25 m	Columbia-Pacific Northwest	Trail	Parking Lot	USBR	State	High	Capital	\$250,000
Osborn BayState Boat Ramp	Ramp is cracking and breaking in places.	Columbia-Pacific Northwest	Boat Ramp	Not Applicable	USBR	State	Medium	Maintenance	\$250,000
McCormack Asphalt Chip Seal	fill cracks and chip seal roads; .25	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	High	Maintenance	\$250,000
Unity Main Access Road Maintenance	Chip Seal; .65 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	State	State	High	Maintenance	\$250,000

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Osborn Bay Campground Gravel Surfacing	Rutting and undefined roadway and parking area; .1 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	Low	Maintenance	\$250,000
Northup Point Chip Seal	Large cracking and chip seal on .5 miles of road	Columbia-Pacific Northwest	Roadway	Boat Ramp	USBR	State	Medium	Maintenance	\$250,000
Prineville Reservoir North Primitive Road	Periodically evaluate road condition & harden crossings for emergency evac route.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	State	Medium	Maintenance	\$250,000
Unity Access Maintenance; .25 miles	Fill cracks and chip seal	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	State	Medium	Maintenance	\$250,000
Crown Point Trail	Stabilize subsurface to protect trail; 5.5 miles	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	State	Medium	Maintenance	\$250,000
Banks Lake Boat Ramp Evaluation	Evaluation and Condition Assessment for Banks Lake Boatramps and their access.	Columbia-Pacific Northwest	Boat Ramp	Roadway	USBR	State	High	Planning Study/RSA/PEL/Corridor Study	\$250,000
Osborn Bay	Road planning	Columbia-Pacific Northwest	Roadway	Boat Ramp	USBR	State	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Prineville Reservoir - South Shore - Cattle Exculs	Find ways to exclude cattle from south shore but honor rts reserved to LO to water access	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	State	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Steamboat Rock Trail Planning and Upgrades	Sections of the trail are steep with loose rock, new trails being developed by peds	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	State	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Bully Creek Road Assessment and Agreement	Inventory primitive routes and close unnecessary routes	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Low	Agreement(s)	\$250,000
Minidoka Dam	Boat Ramp repair	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	USBR	High	Capital	\$250,000
Mann Creek Reservoir	East Boat Ramp Accessibility	Columbia-Pacific Northwest	Boat Ramp	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Bumping Lake Dam	Bridge replacement	Columbia-Pacific Northwest	Bridge	Roadway	USBR	USBR	High	Capital	\$250,000
Tieton Dam 13TIEDISC	Bridge replacement/repair at Outlet*	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	USBR	High	Capital	\$250,000
Tieton Dam	Bridge 13TIEWCAT- Repair or replace the bridge/abutments	Columbia-Pacific Northwest	Bridge	Roadway	USBR	USBR	Medium	Capital	\$250,000

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Mann Creek West Campground Parking Lot Improvement	Regraded and re-surfaced to meet accessibility standards	Columbia-Pacific Northwest	Parking Lot	Boat Ramp	USBR	USBR	Low	Capital	\$250,000
Buelah Upgrades	Parking Lot Repair and Accessibility Upgrades	Columbia-Pacific Northwest	Parking Lot	Boat Ramp	USBR	USBR	Low	Capital	\$250,000
Warm Springs Restroom Parking	No Parking Area, Does not meet accessibility standards	Columbia-Pacific Northwest	Parking Lot	Not Applicable	USBR	USBR	Low	Capital	\$250,000
Summer Falls Pedestrian Trail	Create access and parking near CXT; .1 miles of trail	Columbia-Pacific Northwest	Parking Lot	Trail	USBR	USBR	Medium	Capital	\$250,000
Teton River Canyon Primitive Camp Area	Resurface gravel road to infrastructure; 2 miles*	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	High	Capital	\$250,000
Maintenance Access Evaluation and Upgrade	Stabilize subsurface to prevent road slumping; .1 miles*	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	High	Capital	\$250,000
American Falls West Wall Recreation Area	Paving Road and Parking areas, and installing permanent restroom at West Wall Rec Area; .5 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
Ririe Juniper Campground	Improve 2.5 miles of Roadway, Lighting, and Accessibility for Juniper Campground; Combine w/ 372 375	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Prineville Reservoir - Bear Creek Road - Vehicle C	Close road to vehicle traffic -- improve it for pedestrian use as a hiking trail; 10 miles	Columbia-Pacific Northwest	Roadway	Trail	USBR	USBR	Medium	Capital	\$250,000
Juniper Ridge Subdivision Road	Improve road to county standards and dedicate it to the county.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Medium	Capital	\$250,000
American Falls	Repave road and maintenance yard; .5 miles*	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Scooteney Park Pedestrian Trail	Repair .13 miles asphalt walking path at CG	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	USBR	High	Capital	\$250,000
North Unit Main Canal Burma Road - BLM Trail	Evaluate, re-design, improve/build 1 mile Burma Road trail. Install protections at tunnel entrance.	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	USBR	Low	Capital	\$250,000
Scooteney Trails	Design and maintain .5 miles of trail system	Columbia-Pacific Northwest	Trail	Not Applicable	USBR	USBR	Low	Capital	\$250,000

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Grand Coulee Dam Interpretative River Trail	River Trail addition; Replace .5 miles of degraded asphalt trail with concrete	Columbia-Pacific Northwest	Trail	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Lakeway Bridge	Perform and post revised load rating. Adjust the downstream left object marker. Fill the void	Columbia-Pacific Northwest	Bridge	Roadway	USBR	USBR	Low	Maintenance	\$250,000
Ephrata Field Office Parking Lot	Resurface EFO parking lot	Columbia-Pacific Northwest	Parking Lot	Not Applicable	USBR	USBR	High	Maintenance	\$250,000
Ephrata Field Office Warehouse Parking Lot	Resurface EFO Warehouse parking lot*	Columbia-Pacific Northwest	Parking Lot	Not Applicable	USBR	USBR	High	Maintenance	\$250,000
Mann Creek South Day Use Upgrades	Re-gravel parking lot and roads	Columbia-Pacific Northwest	Parking Lot	Roadway	USBR	USBR	Medium	Maintenance	\$250,000
Anderson Ranch Dam Road	Potholes and Alligator Cracking; .25 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	High	Maintenance	\$250,000
North Unit Ranch of the Canyons Canal Access Road	Add fill to weatherize gravel roadbed next to river's edge.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
American Falls	American Falls Visitor Center Road and Parking Lot; .1 miles	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Low	Maintenance	\$250,000
Hagg Lake Private Access Easement - Bean	Repair blown culvert and hillside (.25 miles) erosion.	Columbia-Pacific Northwest	Roadway	Culvert	USBR	USBR	Low	Maintenance	\$250,000
Dry Falls Dam Maintenance Road	Re-gravel 1.5 miles of Maintenance Access Road below Dry Falls Dam. Rec 2015-3-A.*	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Medium	Maintenance	\$250,000
Thief Valley Dam	Gravel access roadway across private ground to right abutment; 1.3 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Medium	Maintenance	\$250,000
Summer Falls Access Road	Crown, ditch and re-gravel .3 miles of access road	Columbia-Pacific Northwest	Roadway	Culvert	USBR	USBR	Medium	Maintenance	\$250,000
Banks Lake Park Chipseal	Seal cracks and chip seal road	Columbia-Pacific Northwest	Roadway	Parking Lot	USBR	USBR	Medium	Maintenance	\$250,000
Bridge #11 ELL0044	Farm Bridge East Low Lateral 68 Sta. 75+10	Columbia-Pacific Northwest	Bridge	Not Applicable	Water District or Water User Groups	USBR	Low	Operations	\$250,000

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Buelah Transportation Plan	Inventory existing primitive routes and close unnecessary routes; covers 25 miles	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	USBR	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Box Culvert Upgrade	Widen Box Culvert*	Columbia-Pacific Northwest	Culvert	Roadway	USBR	Water District or Water User Groups	Medium	Capital	\$250,000
Ashland Lateral - Access Road - Drainage Improvement	Reconstruct road to improve drainage during sheet flow rain events; .1 miles*	Columbia-Pacific Northwest	Roadway		USBR	Water District or Water User Groups	Low	Capital	\$250,000
Bridge #11 WC0150	Bridge on the West Canal W26C Sta. 117+60	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
Bridge #11 PECL0083	Bridge on Potholes East Canal 16.4 Sta. 0136+88	Columbia-Pacific Northwest	Bridge	Roadway	USBR	Water District or Water User Groups	Medium	Maintenance	\$250,000
Bridge #11 MC0013	Moses Lake Spillway Bridge	Columbia-Pacific Northwest	Bridge	Roadway	USBR	Water District or Water User Groups	Medium	Maintenance	\$250,000
Ashland Lateral Diversion - Access Road - Drainage	Reconstruct canal access road to improve drainage during sheet flow rain events; .25 miles*	Columbia-Pacific Northwest	Roadway		USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
Ashland Lateral Diversion access road	Restore eroded sections of access road to diversion dam; .25 miles*	Columbia-Pacific Northwest	Roadway		USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
Ashland Lateral - Urban Trail - Design and Build	Bury lateral and build urban trail over pipe to create trail from city to Emigrant reservoir; 10 mil	Columbia-Pacific Northwest	Trail		USBR	Water District or Water User Groups	Low	Maintenance	\$250,000
Bridge #11 ELL0043	Farm Bridge East Low Lateral 68 Sta. 48+88	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Low	Operations	\$250,000
Bridge #11 WC0140	Bridge on the West Canal W20F Sta. 221+75	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Low	Operations	\$250,000
Bridge #11 PECL0087	Bridge on Potholes East Canal 16.4M12WW Sta. 030+20	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Low	Operations	\$250,000
Bridge #11ELL0002	Farm bridge East Low Lateral 20 Sta. 058+70	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge#11 ELL0003	Farm Bridge East Low Lateral 20 Sta. 086+33	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000

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Bridge #11ELL0007	Farm Bridge East Low Lateral 29 Sta. 228+23	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 ELL0090	Farm Bridge on East Low Lateral 36.3 Sta. 22+29	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 ELL0099	Farm bridge on East Low Lateral 36.3 Sta. 29+26	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 ELL209	Bridge on East Low Lateral 29 Sta. 603+62	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge # 11 ELL211	Bridge on East Low Lateral 29 Sta. 748+00	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 PECL0064	Bridge on Wahluke Branch 10 Sta. 164+00	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 PECL0077	Bridge on Potholes East Canal 46A WW Sta. 251+00	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Operations	\$250,000
Bridge #11 PECL0084	Bridge on Potholes East Canal 16.4 Sta. 0188+65	Columbia-Pacific Northwest	Bridge	Roadway	USBR	Water District or Water User Groups	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Bridge # 11 PEC0037	Bridge on Wahluke Branch Canal Sta. 1494+23	Columbia-Pacific Northwest	Bridge	Not Applicable	USBR	Water District or Water User Groups	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Hagg Lake Mill Creek Drainage: Evaluate Relocation	Evaluate need for flowage easement and alternatives for stormwater discharge over about 1 mile.	Columbia-Pacific Northwest	Culvert	Roadway	USBR	Water District or Water User Groups	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Tualatin Project - Buired Irrigation Pipe System -	Evaluate condition of all driveway crossings over buried irrigation pipes; 1 mile	Columbia-Pacific Northwest	Culvert	Roadway	USBR	Water District or Water User Groups	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Ochoco - Service Roads - Cattle Exclusion - Design	Find ways to exclude cattle from earthen canal service roads.	Columbia-Pacific Northwest	Roadway	Not Applicable	USBR	Water District or Water User Groups	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Hagg Lake/Scoggins Creek Trespass Access Road	Survey .5 miles new residential access road wrt USA fee-owned land boundary. Investigate tree cutting.	Columbia-Pacific Northwest	Roadway		USBR	Water District or Water User Groups	Low	Planning Study/RSA/PEL/Corridor Study	\$250,000
Haystack Dam Tender's Driveway: Easement & Bridge	Survey for easement acquisition. Bridge relocation*	Columbia-Pacific Northwest	Roadway	Bridge			Low	Agreement(s)	\$250,000

A. Project Name	B. Need Description	C. Region	D. Primary Asset Type	E. Secondary Asset Type	F. Facility Ownership	G. Facility Operation & Maintenance	H. Region Priority	I. Improvement Type	J. Estimated Median Cost for Improvement
Carey Foster Road	Coordinate with city to decommission road and make it a ped trail.	Columbia-Pacific Northwest	Roadway					Agreement(s)	\$250,000
o 15NTS001: Notus Canal-Ditch Rider Access Bridge	Install approach rail	Columbia-Pacific Northwest	Bridge					Capital	\$250,000
Solar powered automated gates	Find funding and authority to place gates on all intersections of canals and roads.	Columbia-Pacific Northwest	Roadway					Capital	\$250,000
Potholes Hiking Trails upgraded	Old two track used as trail, no maintenance or formal development	Columbia-Pacific Northwest	Trail					Capital	\$250,000
BLM cattle grazing exclusionary improvements	Study ways to prevent cattle in BLM grazing units from damaging canal lining and contaminating water	Columbia-Pacific Northwest	Roadway					Planning Study/RSA/PEL/Corridor Study	\$250,000
Diversion Canal replacement - phase 1	Plan for replacing road after excavating the Diversion Canal pipe.	Columbia-Pacific Northwest	Roadway					Planning Study/RSA/PEL/Corridor Study	\$250,000
Diversion Canal replacement - phase 2	Plan for rebuilding Combs Flat Road after excavating Diversion Canal pipe for replacement.	Columbia-Pacific Northwest	Roadway					Planning Study/RSA/PEL/Corridor Study	\$250,000
Horseshoe Dam	Install culvert structure on Horseshoe Dam Access Road to allow needed access during rain events	Lower Colorado Basin	Culvert	Roadway	Other Federal	Other Federal	Medium	Capital	\$250,000
Hoover Dam - Bldgs & Grounds	Lower Portal Road bridge and slope repair	Lower Colorado Basin	Bridge	Not Applicable	USBR	USBR	Medium	Capital	\$250,000
Main Outlet Drain	Bridge repair of Service Road, Figueroa, and N. 9th Avenue bridges	Lower Colorado Basin	Bridge	Not Applicable	USBR	USBR	Medium	Capital	\$250,000
Hoover Dam Region	Transit feasibility study	Lower Colorado Basin	Transit System	Roadway	USBR	USBR	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Senator Wash Road & Squaw Lake Area	Congestion Management Study for this Region	Lower Colorado Basin	Roadway	Parking Lot			Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Silos road	1-5 miles move, gravel or pave with FLTP	Missouri Basin	Roadway	Parking Lot	USBR	County	Low	Capital	\$250,000
Angostura Shoreline stabilization project	.1 miles road & bike path threatened by shoreline, bank stabilization will be needed	Missouri Basin	Roadway	Trail	USBR	State	Medium	Agreement(s)	\$250,000
Shadehill Reservoir	Road resurfacing and drainage improvements	Missouri Basin	Roadway	Culvert	USBR	State	Low	Capital	\$250,000

A. Project Name	B. Need Description	C. Region	D. Primary Asset Type	E. Secondary Asset Type	F. Facility Ownership	G. Facility Operation & Maintenance	H. Region Priority	I. Improvement Type	J. Estimated Median Cost for Improvement
WMA east	build up with gravel*	Missouri Basin	Roadway	Not Applicable	USBR	State	Low	Maintenance	\$250,000
Duck Creek boat ramp	build concrete boat ramp, possible FLTP project	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Low	Capital	\$250,000
Shannon boat launch	extend into water	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Low	Capital	\$250,000
Jo Bonner boat ramp	concrete	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Low	Capital	\$250,000
New Johns Lake Boat Ramp	medium	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Crappie Creek Boat Ramp	medium	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Koehlers Point Boat Ramp	medium	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Chain of Lakes Boat Ramp	medium	Missouri Basin	Boat Ramp	Parking Lot	USBR	USBR	Medium	Capital	\$250,000
Warehouse parking lot	rehab with gravel or pave*	Missouri Basin	Parking Lot	Roadway	USBR	USBR	Low	Capital	\$250,000
Crappie Creek Dumping Station	high - heavy use area	Missouri Basin	Parking Lot		USBR	USBR	Medium	Capital	\$250,000
Cave Point road	rehab with gravel	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
East Shore North road	millings or paving, possible FLAP	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$250,000
Eagle Bay Drive	1-5 miles rehab and gravel, possible FLAP	Missouri Basin	Roadway		USBR	USBR	Low	Capital	\$250,000
Chinamen Campground road	rehab with gravel or pave	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
White Earth roads	Less than a mile build up with gravel, mag chloride, possible pave with FLTP	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
Hellgate roads	1-5 miles build up with gravel, mag chloride on main road, possibly pave main road	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
West Shore Drive road	1-5 miles complete millings using FLAP	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Capital	\$250,000
Magpie Yard road	rehab with gravel*	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Capital	\$250,000
Riverside boat ramp	concrete repairs	Missouri Basin	Boat Ramp		USBR	USBR	Low	Maintenance	\$250,000
Hellgate boat ramp east	concrete repairs needed	Missouri Basin	Boat Ramp	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
Goose Bay roads south	Less than a mile build up with gravel	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
Confederate secondary roads	Less than a mile build up with gravel	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
Indian Road roads	Less than a mile build up with gravel	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Maintenance	\$250,000
Cottonwood road	1- 5 miles build up with gravel	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000

A. Project Name	B. Need Description	C. Region	D. Primary Asset Type	E. Secondary Asset Type	F. Facility Ownership	G. Facility Operation & Maintenance	H. Region Priority	I. Improvement Type	J. Estimated Median Cost for Improvement
Duck Creek roads secondary	Less than a mile build up with gravel	Missouri Basin	Roadway	Not Applicable	USBR	USBR	Low	Maintenance	\$250,000
Overlook DUA road	Less than a mile build up with gravel	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Maintenance	\$250,000
Fish Hawk Campground road	Less than a mile build up with gravel	Missouri Basin	Roadway	Parking Lot	USBR	USBR	Low	Maintenance	\$250,000
HRVV main road	Less than a mile Rehab road with gravel or pave, possible FLAP	Missouri Basin	Roadway	Parking Lot	USBR	Water District or Water User Groups	Low	Capital	\$250,000
HVRR road	1-5 miles rehab with gravel, possible FLAP	Missouri Basin	Roadway	Parking Lot	USBR	Water District or Water User Groups	Low	Capital	\$250,000
Crow Creek roads	gravel and build up	Missouri Basin	Roadway	Not Applicable	Water District or Water User Groups	Water District or Water User Groups	Low	Maintenance	\$250,000
Tiber Marina	Boat Ramp Extension	Missouri Basin	Boat Ramp					Capital	\$250,000
Yellowtail Dam Access Rd	Rock scaling	Missouri Basin	Roadway					Maintenance	\$250,000
Pathfinder Interpretive Trail	Resurfacing trail & meet ABA accessibility on swinging bridge	Upper Colorado Basin	Trail	Bridge	USBR	County	Medium	Capital	\$250,000
Ridges Basin Dam	Tribute Garden Rd paving; resurface and repair	Upper Colorado Basin	Parking Lot	Roadway	USBR	Local Entity(Town, City, Public Works, etc.)	Low	Capital	\$250,000
Bull Lake Access Road	Road repairs and resurfacing	Upper Colorado Basin	Roadway		Other Federal	Other Federal	Low	Capital	\$250,000
Rifle Gap Beach Road	Drainage Improvements, gravel resurfacing, earthworkm and riprap bank stabil. on Rifle Gap Beach Rd.	Upper Colorado Basin	Roadway	Not Applicable	USBR	State	Low	Capital	\$250,000
Rifle Gap Entrance Road	Study and Repair Subsidence issues on Rifel Gap Entrance Road	Upper Colorado Basin	Roadway	Not Applicable	USBR	State	Medium	Capital	\$250,000
Rifle Gap Pavement Maintenance	Chip seal all paved surface in Rifle Gap park	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Low	Maintenance	\$250,000
Wind River Campground Road	Erosion repairs & resurfacing	Upper Colorado Basin	Roadway	Not Applicable	USBR	State	Medium	Maintenance	\$250,000
Chama River Staircase & Trail	Remove portions of structurally unsound staircase at the Rio Chama trailhead and repair	Upper Colorado Basin	Trail	Trail	USBR	State	Low	Maintenance	\$250,000

A. Project Name	B. Need Description	C. Region	D. Primary Asset Type	E. Secondary Asset Type	F. Facility Ownership	G. Facility Operation & Maintenance	H. Region Priority	I. Improvement Type	J. Estimated Median Cost for Improvement
Navajo Lake State Park (NM) Access Management Plan	Parking needs are primary; examine where to locate houseboat; manage growth; expand, etc.	Upper Colorado Basin	Roadway		USBR	State	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Navajo State Park (CO) Traffic Studies	Traffic and road safety studies on road in and accessing Navajo State Park	Upper Colorado Basin	Roadway		USBR	State	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Vallecito Lake Visitor Use and Transportation Plan	Visitor Use and Transportation Access Plan; include/address resource concerns through effort	Upper Colorado Basin	Roadway	Parking Lot	USBR	State	Medium	Planning Study/RSA/PEL/Corridor Study	\$250,000
Anchor Reservoir Access Road	Rebuild access road damaged by high water	Upper Colorado Basin	Roadway		USBR	USBR	Low	Capital	\$250,000
Resurface Boat Ramp Parking at Vallecito	83000 sq feetchip seal or asphalt existing gravel parking lot and add AIS decontamination area	Upper Colorado Basin	Parking Lot	Parking Lot	USBR	Water District or Water User Groups	Low	Capital	\$250,000
Vallecito Extra Parking; 5-10 space lots; 2 lots	add two small parking lots near low water locations	Upper Colorado Basin	Parking Lot	Parking Lot	USBR	Water District or Water User Groups	Medium	Capital	\$250,000
Ridges Basin Dam	Rehab Dam Access*	Upper Colorado Basin	Roadway	Not Applicable	USBR	Water District or Water User Groups	Low	Capital	\$250,000
Alcova Dam Spillway	Spillway and bridge repair	Upper Colorado Basin	Bridge					Capital	\$250,000
Seminole Dam Access Rd	Repair and rock abatement	Upper Colorado Basin	Roadway					Maintenance	\$250,000
South Dam Boat Ramp Parking	Overlay Asphalt	Arkansas-Rio Grande-Texas Gulf	Parking Lot	Not Applicable	USBR	State	High	Capital	\$250,000

Tables 2-11 summarize the number of needs entered by the field of information a Region provided on each need. In the parentheses of each table name is the corresponding Question/Field the Region was answering from the user guide in Appendix A.

Table 2. Summary of Needs Entered by DOI Regions (A.1. Location of Need)

DOI Unified Region Name (Region #)	# of Needs Entered	Percentage of All Needs Entered
Arkansas-Rio Grande-Texas Gulf (Region 6)	18	5%
California-Great Basin (Region 10)	59	17%
Columbia-Pacific Northwest (Region 9)	164	46%
Lower Colorado Basin (Region 8)	17	5%
Missouri Basin (Region 5)	45	13%
Upper Colorado Basin (Region 7)	51	14%
Total	354	100%

Table 3. Summary of Needs Entered by Ownership and Operation and Maintenance of the Facility the need is located on. (B.3. Agency with Ownership; B.4 Agency with O&M)

Ownership of Facility	# of Needs Entered
County	12
Local Entity (Town, City, Public Works, etc.)	3
Other Federal	11
State	16
Reclamation	279
Water District or Water User Groups	2
Total	323
Operations & Maintenance of Facility	# of Needs Entered
County	31
Local Entity (Town, City, Public Works, etc.)	8
Other Federal	14
Other Governmental Entity (MPO, COG, Regional Councils, etc.)	1
State	95
Reclamation	127
Water District or Water User Groups	49
Total	325

Table 4. Summary of Needs Entered Region Determined Priority (C.1. Priority of the Need Relative to Your Region)

Priority of Need	# of Needs Entered	Percentage of Needs
High	59	18%
Low	153	47%
Medium	115	35%
Total	327	100%

Table 5. Summary of Needs Entered by Assumed Project Type (D.1. Proposed Improvement)

Type of Project	# of Needs Entered	Percentage of Needs
Agreement(s)	6	2%
Capital	226	64%
Maintenance	82	23%
Operations	14	4%
Planning Study/RSA/PEL/Corridor Study	26	7%
Total	354	100%

Table 6. Summary of Needs by Existing Condition of the Facility (SP.1. What best describes the existing condition of the asset associated to the need?)

Condition of Facility Need is Located On	# of Needs Entered	Percentage of All Needs
Failed - does not meet intended use	41	14%
Poor - will fail with no action	90	31%
Fair - sustainable through maintenance/ operations	144	50%
Good	14	5%
Total	289	100%

Table 7. Summary of Needs by Turn Back Risk (SP.5. What is the risk of Turn Back?)

Turn Back Risk	# of Needs Entered	Percentage of All Needs
High	9	3%
Low	99	32%
Medium	26	8%
Not Applicable	173	56%
Total	307	100%

Table 8. Summary of Needs Safety Risk Associated with the Need (S.2. How big is the safety risk?)

Safety Risk	# of Needs Entered	Percentage of All Needs
High	41	13%
Low	124	40%
Medium	102	33%
Not Applicable	45	14%
Total	312	100%

Table 9. Summary of Needs by Turn Back Risk (S.1. What type of user does the Safety concern primarily relate to?)

Type of Safety Concern	# of Needs Entered	Percentage of All Needs
ABA/ADA Accessibility	17	5%
Bicycle	6	2%
Hazard	19	6%
Not Applicable	40	13%
Pedestrian	19	6%
Vehicle	211	68%
Total	312	100%

Table 10. Summary of Needs the Primary Type of Site the Asset with the Need Accesses
(RE.1. What type of site(s) does the asset access?)

NOTE: Regions had to choose one but verbally reported they saw several needs as falling both in the Recreation and Economic Generator categories. Further scoping will be needed to determine if the need is serving public access or just access for other forms of economic generation. Subsequent deployments of the Needs Assessment may want to ask more specifically if the need is located on a facility serving public access and how much. This will help determine what kind of funding to pursue for the project.

Site Type	# of Needs Entered	Percentage of All Needs
Recreation site (trailhead, camping site, overlook, picnic, boating area, etc.)	218	69%
Administrative Use Only	26	8%
Economic generator (power, M&I water, farming / ranching, etc.)	52	17%
Other or Undetermined	16	5%
Not Applicable	2	1%
Total	314	100%

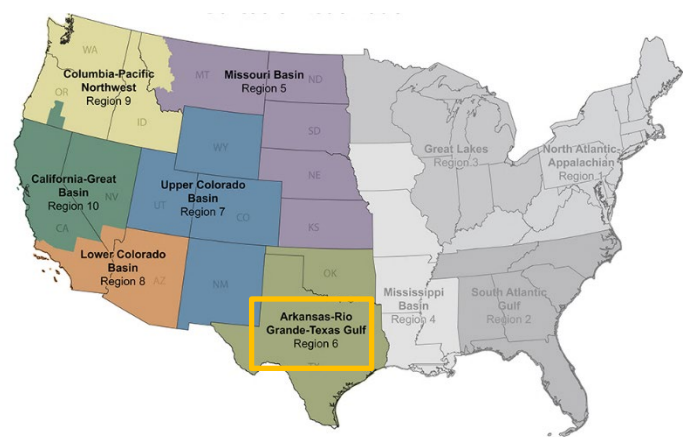
Table 11. Summary of Needs Observed Visitation level at the Site the Need is Located
(RE. 4. What is the level of visitation at the site?)

Level of Observed Visitation	# of Needs Entered	Percentage of All Needs
High (at or overcapacity)	81	26%
Low (underutilized)	78	25%
Medium (near capacity)	96	31%
Not Applicable	53	17%
Total	308	100%

Appendix C. Arkansas-Rio Grande-Texas Gulf 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	31
TOTAL	354

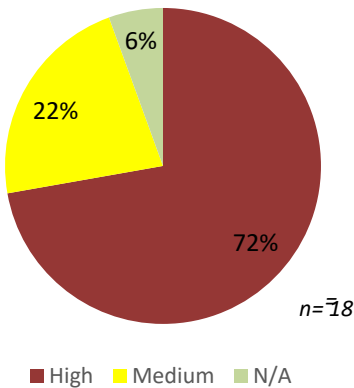


The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states “Breakdown by Region,” it is referring to the percentage based on all needs entered in that region. When a table states “Breakdown Across All Regions,” it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region’s needs. When “All Reclamation Regions” is in the title, it is looking at how that need category distributed based on all needs entered.

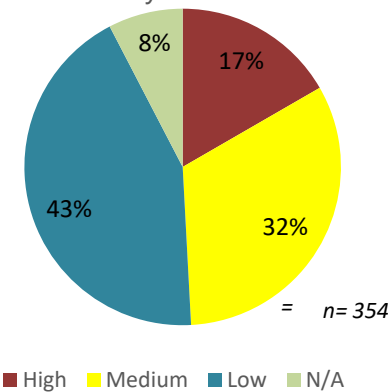
Priority of Need and Cost

The Arkansas-Rio Grande-Texas Gulf Region identified 18 needs, for a total estimated median cost of \$11.8 million. The majority of needs were assessed to be high priority and estimated to cost less than \$500,000 for each need.

A-RG-TG - Priority of Need



All Reclamation Regions - Priority of Need



	Priority of the Need (n=18)			
Estimated Cost Range	High	Medium	Low	Priority Not Identified
Less than \$500K	11	2		1
\$500K-\$1 Million		1		
\$1-\$5 Million	2	1		
Greater than \$5 Million				

Project and Asset Type of Needs

One hundred percent of the needs identified in the Arkansas-Rio Grande-Texas Gulf Region were assessed to be capital improvements. Across all Reclamation regions, only 64% of the needs were assessed to be capital improvements. Similar to all Reclamation regions, the Arkansas-Rio Grande-Texas Gulf Region identified most of its needs to be either on roadways or parking lots.

Improvement Type	# Needs Entered for the Region	Breakdown by Region (n=18)	Breakdown Across All Reclamation Regions (n=354)
Capital	18	100%	64%
Maintenance	0	0%	23%
Agreement	0	0%	2%
Operations	0	0%	4%
Planning	0	0%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region (n=18)	Breakdown Across All Reclamation Regions (n=354)
Boat Ramp	0	0%	7%
Bridge	1	6%	12%
Culvert	0	0%	2%
Parking Lot	7	39%	17%
Roadway	10	56%	55%
Trail	0	0%	6%
Transit System	0	0%	0%

Facility Condition of Needs

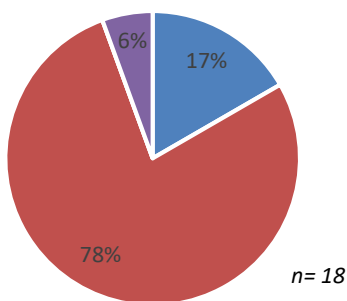
The Arkansas-Rio Grande-Texas Gulf Region assessed that all the facilities their needs were located on were in poor condition, or that they will fail with no improvements. Seventeen, or 94% of the 18 needs, were assessed to be on sites with high or medium turn back risk. Across all Reclamation regions, only 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (n=18)	Breakdown Across All Reclamation Regions (n=354)
High	3	16%	3%
Medium	14	78%	28%
Low	0	0%	7%
Not Applicable or Blank	1	6%	62%

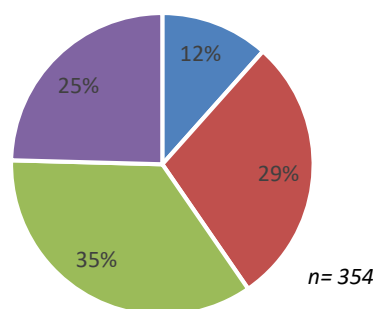
Safety Risk Associated with Needs

The Arkansas-Rio Grande-Texas Gulf Region assessed most of their needs to have a medium safety risk, related to vehicle access. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.

A-RG-TG - Safety Risk Associated with Need



All Reclamation Regions - Safety Risk Associated with Need



■ High ■ Medium ■ Low ■ Not Applicable or Blank

■ High ■ Medium ■ Low ■ Not Applicable or Blank

Visitation Levels at Sites Associated with Needs

The Arkansas-Rio Grande-Texas Gulf Region assessed 94% of their needs to be at sites that were experiencing visitation levels at or over capacity. Across all Reclamation regions, needs were fairly well dispersed amongst sites experiencing high, medium, and low visitation levels.

Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=18)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	17	94%	23%
Medium (near capacity)	0	0%	27%
Low (underutilized)	0	0%	22%
Not Applicable or Blank	1	6%	28%

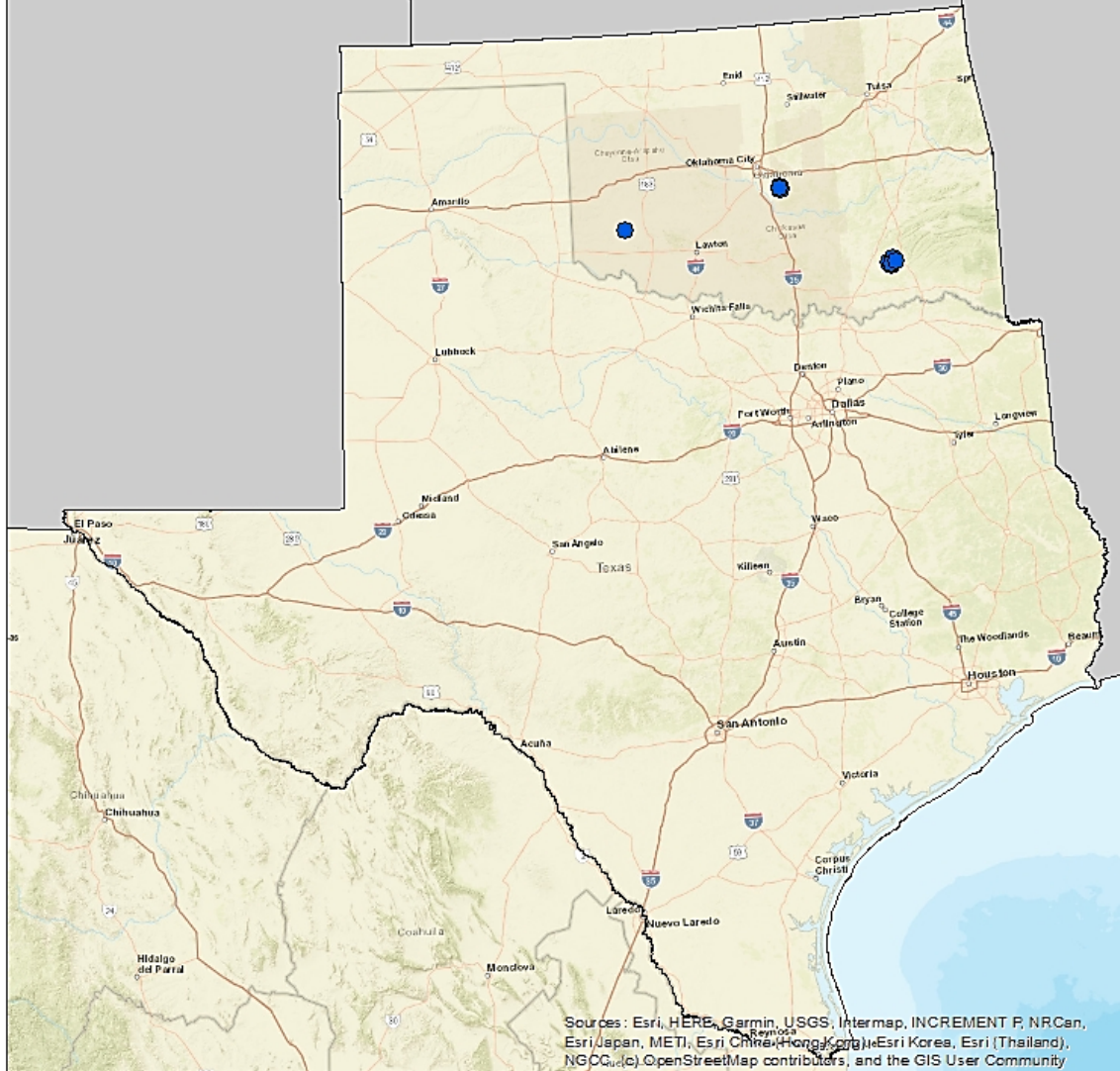
Location of Needs

The next page includes a map of the location of the needs in the Arkansas-Rio Grande-Texas Gulf Region. All needs identified were at Reclamation sites in Oklahoma.

Needs by Region

Arkansas-Rio Grande-Texas Gulf

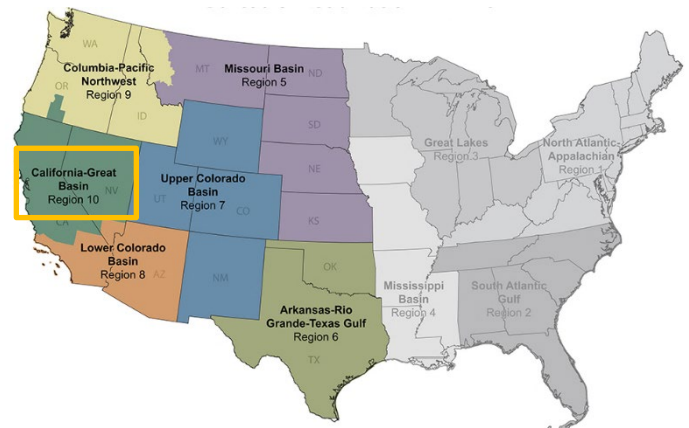
● Reclamation Needs



Appendix D. California-Great Basin 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	31
TOTAL	354

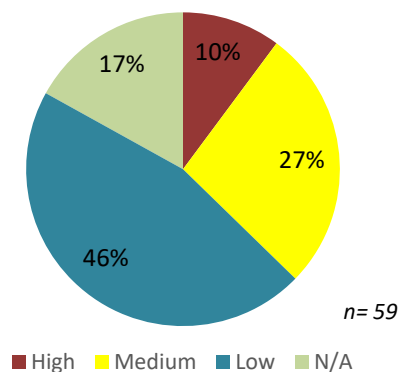


The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states “Breakdown by Region,” it is referring to the percentage based on all needs entered in that region. When a table states “Breakdown Across All Regions,” it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region’s needs. When “All Reclamation Regions” is in the title, it is looking at how that need category distributed based on all needs entered.

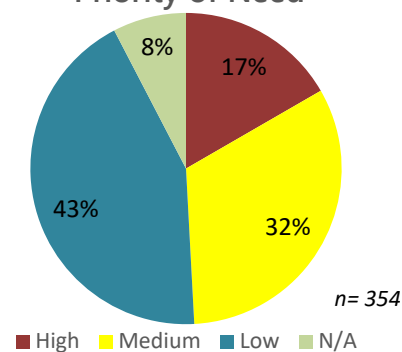
Priority of Need and Cost

The California-Great Basin Region identified 59 needs, for a total estimated median cost of \$57.5 million. The majority of needs were assessed to be medium or low priority and estimated to cost less than \$1,000,000 for each need.

California-GB - Priority



All Reclamation Regions - Priority of Need



	Priority of the Need (n=59)			
Estimated Cost Range	High	Medium	Low	N/A
Less than \$500K	3	2	8	6
\$500K-\$1 Million	1	11	14	3
\$1-\$5 Million	2	2	5	1
Greater than \$5 Million		1		

Project and Asset Type of Needs

Sixty-nine percent of the needs identified in the California-Great Basin Region were assessed to be capital improvements. Across all Reclamation regions, only 64% of the needs were assessed to be capital improvements. Similar to all Reclamation regions, the California-Great Basin Region identified most (83%) of its needs to be either on roadways or parking lots.

Improvement Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Capital	41	69%	64%
Maintenance	18	31%	23%
Agreement	0	0%	2%
Operations	0	0%	4%
Planning	0	0%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Boat Ramp	2	5%	7%
Bridge	3	7%	12%
Culvert	0	0%	2%
Parking Lot	16	39%	17%
Roadway	18	44%	55%
Trail	2	5%	6%
Transit System	0	0%	0%

Facility Condition of Needs

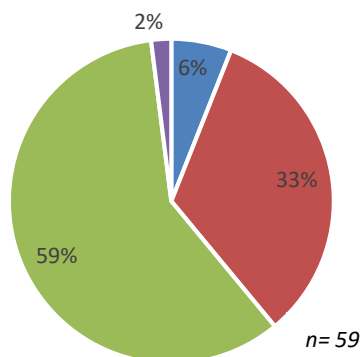
The California-Great Basin Region assessed that just under half of the facilities their needs were located on were in poor or failing condition, or that they will fail with no improvements. Two, or 4% of the 59 needs, were assessed to be on sites with high or medium turn back risk. Across all Reclamation regions, 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (n=59)	Breakdown Across All Reclamation Regions (n=354)
High	0	0%	3%
Medium	2	4%	28%
Low	33	56%	7%
Not Applicable or Blank	24	40%	62%

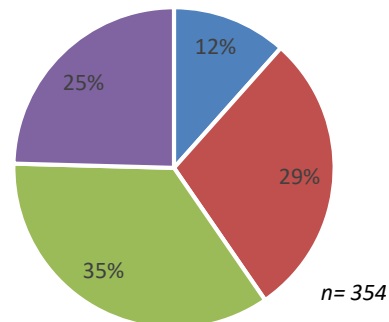
Safety Risk Associated with Needs

The California-Great Basin Region assessed most of their needs to have a low safety risk, related to vehicle access. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.

California-GB - Safety Risk Associated with Need



All Reclamation Regions - Safety Risk Associated with Need



■ High ■ Medium ■ Low ■ Not Applicable or Blank

■ High ■ Medium ■ Low ■ Not Applicable or Blank

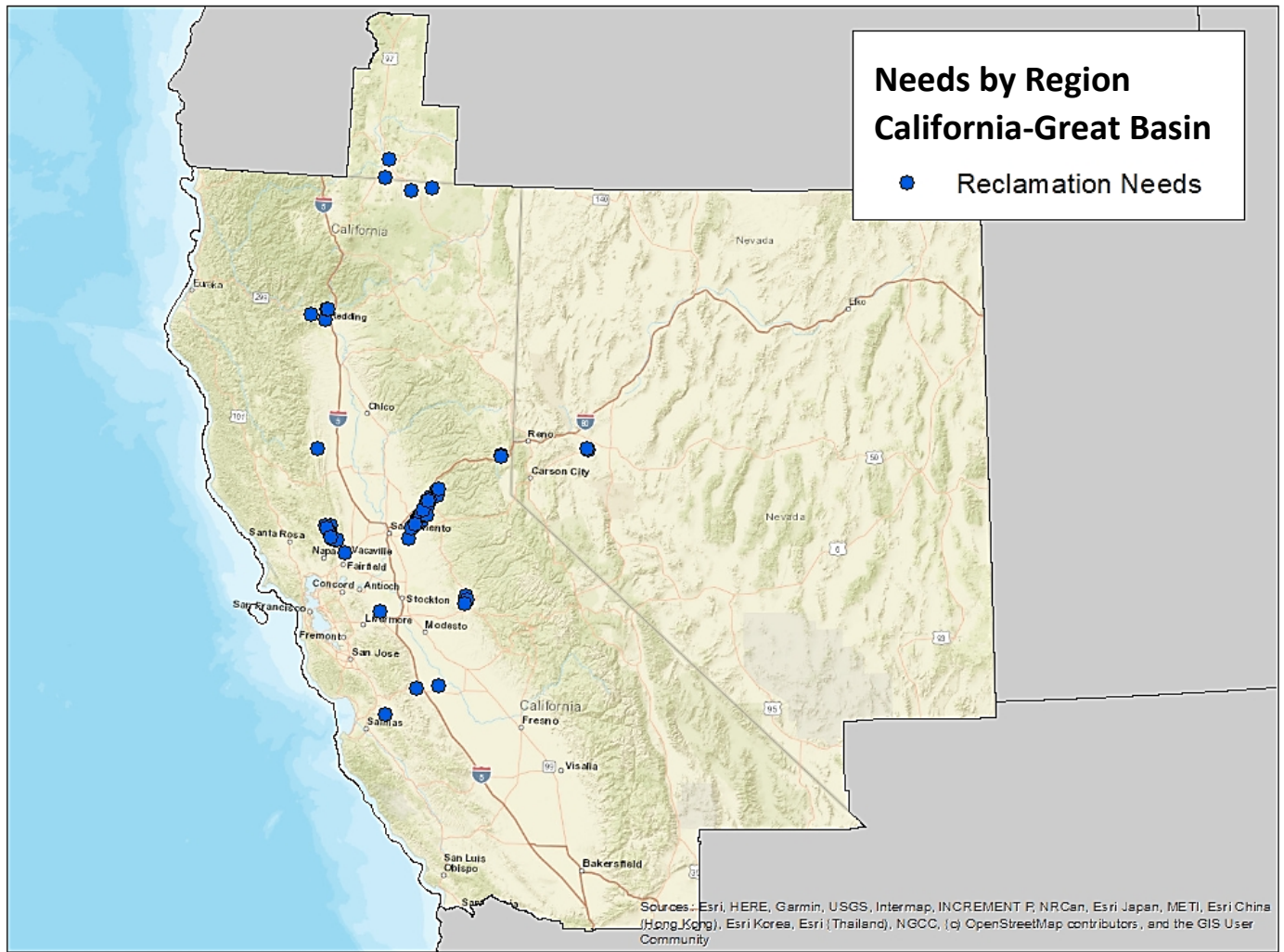
Visitation Levels at Sites Associated with Needs

The California-Great Basin Region assessed 19% of their needs to be at sites that were experiencing visitation levels at or over capacity. Across all Reclamation regions, needs were fairly well dispersed amongst sites experiencing high, medium, and low visitation levels.

Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=59)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	11	19%	23%
Medium (near capacity)	22	37%	27%
Low (underutilized)	16	27%	22%
Not Applicable or Blank	2	4%	28%

Location of Needs

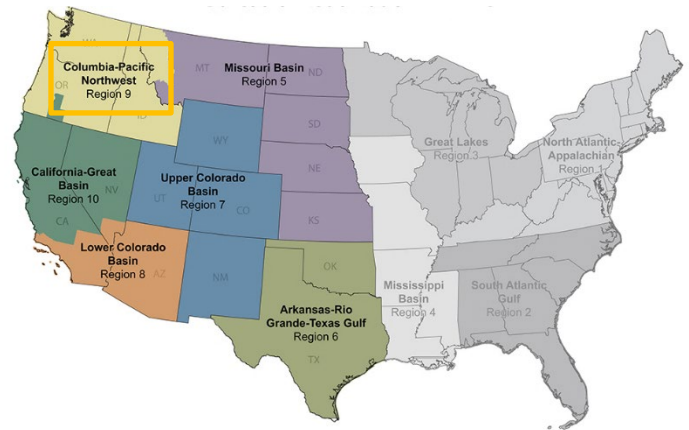
The next page includes a map of the location of the needs in the California-Great Basin Region. The majority of needs identified were at Reclamation sites in California.



Appendix E. Columbia-Pacific Northwest Region 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	31
TOTAL	354

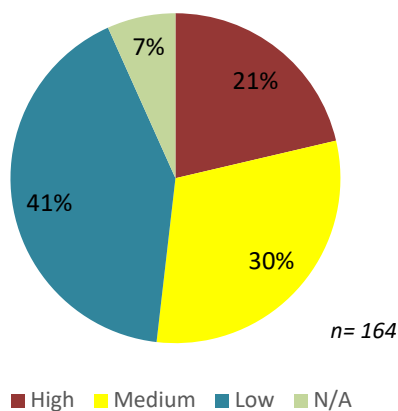


The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states "Breakdown by Region," it is referring to the percentage based on all needs entered in that region. When a table states "Breakdown Across All Regions," it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region's needs. When "All Reclamation Regions" is in the title, it is looking at how that need category distributed based on all needs entered.

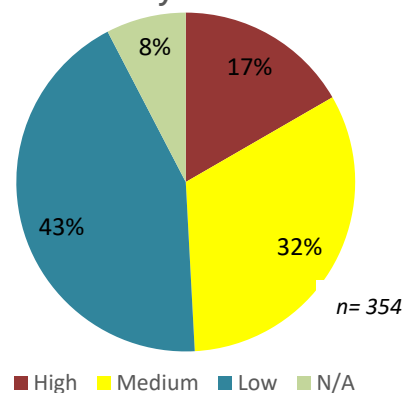
Priority of Need and Cost

The Columbia-Pacific Northwest Region identified 164 needs, for a total estimated median cost of \$111 million. The majority of needs were assessed to be medium or low priority and estimated to cost less than \$1 million for each need.

C-PNW - Priority of Need



All Reclamation Regions -
Priority of Need



	Priority of the Need (n=164)			
Estimated Cost Range	High	Medium	Low	Priority Not Identified
Less than \$500K	18	39	44	7
\$500K-\$1 Million	10	8	19	1
\$1-\$5 Million	5	3	4	3
Greater than \$5 Million	2	0	1	0

Project and Asset Type of Needs

Seventy-five percent of the needs identified in the Columbia-Pacific Northwest Region were assessed to be capital or maintenance improvements. Across all Reclamation regions, 87% of the needs were assessed to be capital or maintenance improvements. The Columbia-Pacific Northwest Region also identified almost twice as many planning needs as compared to the Reclamation-wide breakdown.

Similar to the Reclamation-wide summary, the Columbia-Pacific Northwest Region identified the majority of its needs to be on roadways and parking lots. However, it was only 60% of the region's need, compared to 72% across all regions. The Columbia-Pacific Northwest Region saw more diversity in need project type, identifying twice as many trail needs compared to what was identified at a national level, and several more bridge needs than the rest of the regions.

Improvement Type	# Needs Entered for the Region	Breakdown by Region (n=164)	Breakdown Across All Reclamation Regions (n=354)
Capital	84	51%	64%
Maintenance	40	24%	23%
Agreement	5	3%	2%
Operations	14	9%	4%
Planning	21	13%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region (n=164)	Breakdown Across All Reclamation Regions (n=354)
Boat Ramp	8	5%	7%
Bridge	33	20%	12%
Culvert	6	4%	2%
Parking Lot	13	8%	17%
Roadway	86	52%	55%
Trail	18	11%	6%
Transit System	0	0%	0%

Facility Condition of Needs

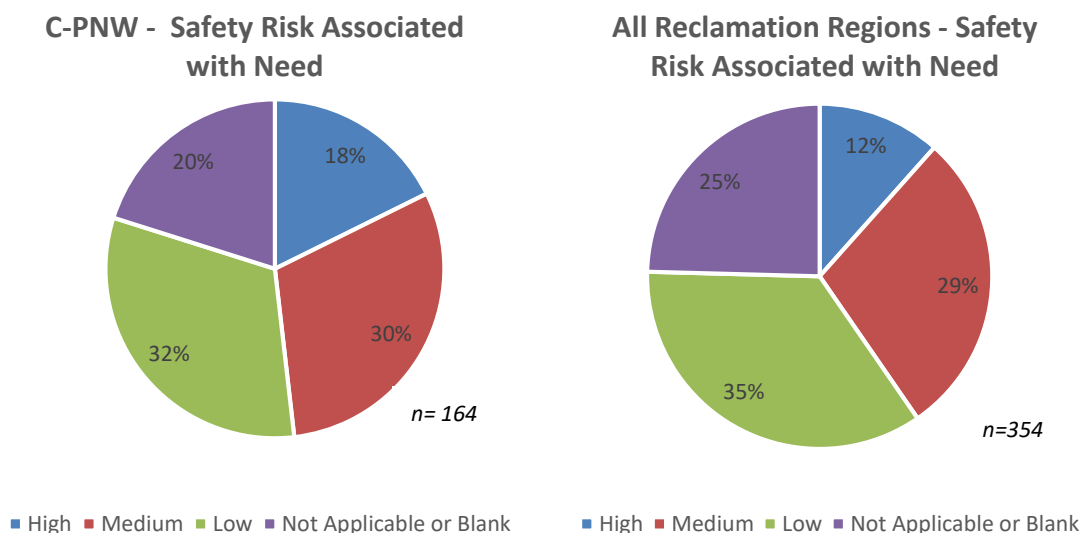
The Columbia-Pacific Northwest Region assessed that about half of their needs were on facilities in fair or better condition. Another 34% were assessed to be on facilities in poor or failing condition. Seven, or 5% of the 164 needs, were assessed to be on sites with high or medium turn back risk, but the region did not answer this question for the majority of their needs. Across all Reclamation regions, 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Facility Condition	# Needs Entered for the Region	Breakdown by Region (n=164)	Breakdown Across All Reclamation Regions (n=354)
Failed - Does not meet intended use	26	16%	12%
Poor - Will fail with no action	30	18%	25%
Fair - Sustainable through maintenance/operations	77	47%	41%
Good	3	2%	4%
Not Applicable or Blank	28	17%	18%

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (n=164)	Breakdown Across All Reclamation Regions (n=354)
High	1	Less than 1%	3%
Medium	6	4%	28%
Low	39	24%	7%
Not Applicable or Blank	118	72%	62%

Safety Risk Associated with Needs

The Columbia-Pacific Northwest Region assessed most of their needs to have a medium or low safety risk, mostly related to vehicle access. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.



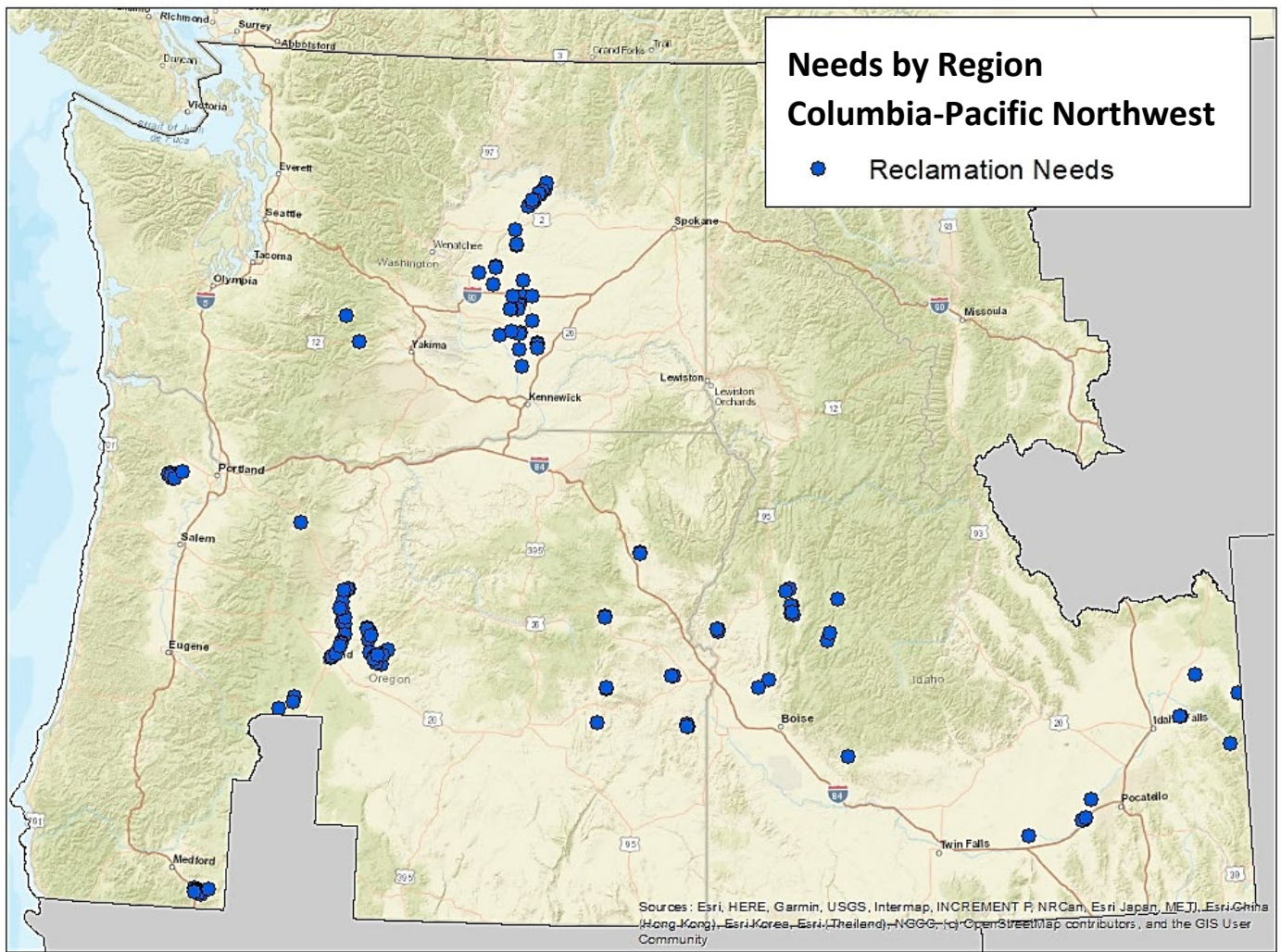
Visitation Levels at Sites Associated with Needs

The Columbia-Pacific Northwest Region needs were fairly evenly spread across sites that were experiencing varying visitation levels. This was in line with what was reported across all Reclamation regions.

Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=164)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	34	21%	23%
Medium (near capacity)	45	27%	27%
Low (underutilized)	35	21%	22%
Not Applicable or Blank	50	31%	28%

Location of Needs

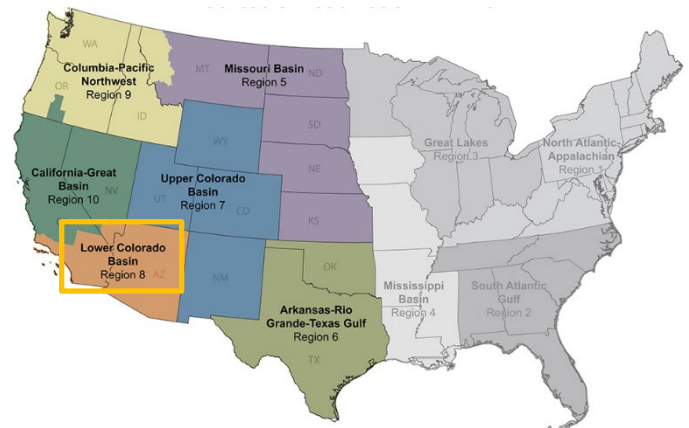
The next page includes a map of the location of the needs in the Columbia-Pacific Northwest Region.



Appendix F. Lower Colorado Basin 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	31
TOTAL	354

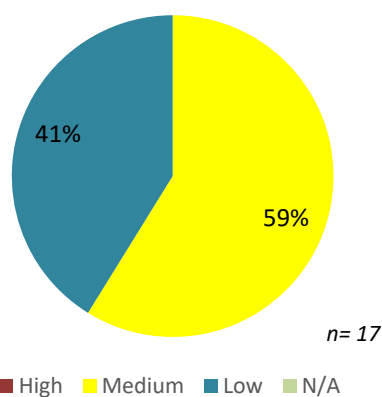


The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states "Breakdown by Region," it is referring to the percentage based on all needs entered in that region. When a table states "Breakdown Across All Regions," it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region's needs. When "All Reclamation Regions" is in the title, it is looking at how that need category distributed based on all needs entered.

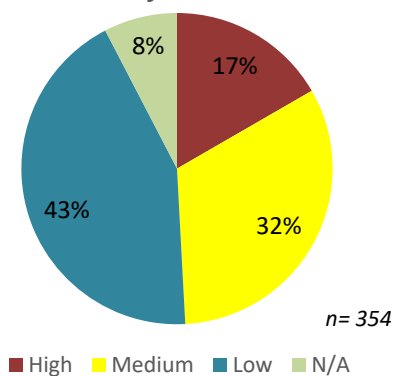
Priority of Need and Cost

The Lower Colorado Basin Region identified 17 needs, for a total estimated median cost of \$31.5 million. The majority of needs were assessed to be medium or low priority and estimated to cost less than \$1,000,000 for each need.

LC Basin - Priority



All Reclamation Regions - Priority of Need



	Priority of the Need (n=17)			
Estimated Cost Range	High	Medium	Low	N/A
Less than \$500K	0	5	0	0
\$500K-\$1 Million	0	1	3	0
\$1-\$5 Million	0	4	2	0
Greater than \$5 Million	0	0	2	0

Project and Asset Type of Needs

Seventy-one percent of the needs identified in the Lower Colorado Basin Region were assessed to be capital improvements. Across all Reclamation regions, 64% of the needs were assessed to be capital improvements. Similar to all Reclamation regions, the Lower Colorado Basin Region identified most (67%) of its needs to be either on roadways or parking lots.

Improvement Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Capital	12	71%	64%
Maintenance	3	18%	23%
Agreement	0	0%	2%
Operations	0	0%	4%
Planning	2	12%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Boat Ramp	0	0%	7%
Bridge	2	17%	12%
Culvert	1	8%	2%
Parking Lot	0	0%	17%
Roadway	8	67%	55%
Trail	0	0%	6%
Transit System	1	8%	0%

Facility Condition of Needs

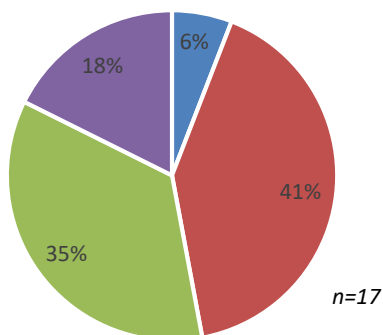
The Lower Colorado Basin Region assessed that 59% of the facilities their needs were located on were in poor or failing condition, or that they will fail with no improvements. None of their needs were at sites with high or medium turn back risk. Across all Reclamation regions, 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (n=59)	Breakdown Across All Reclamation Regions (n=354)
High	0	0%	3%
Medium	0	0%	28%
Low	1	6%	7%
Not Applicable or Blank	16	94%	62%

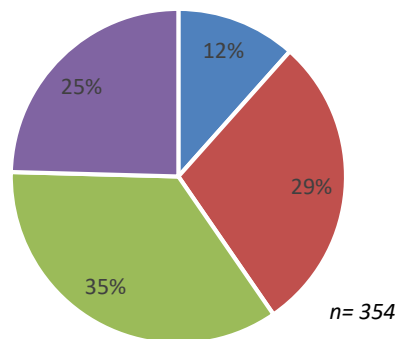
Safety Risk Associated with Needs

The Lower Colorado Basin Region assessed most of their needs to have a medium or low safety risk, related to vehicle access. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.

Lower Colorado - Safety Risk Associated with Need



All Reclamation Regions - Safety Risk Associated with Need



■ High ■ Medium ■ Low ■ Not Applicable or Blank

■ High ■ Medium ■ Low ■ Not Applicable or Blank

Visitation Levels at Sites Associated with Needs

The Lower Colorado Basin Region assessed 19% of their needs to be at sites that were experiencing visitation levels at or over capacity. Across all Reclamation regions, needs were fairly well dispersed amongst sites experiencing high, medium, and low visitation levels.

Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=17)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	1	6%	23%
Medium (near capacity)	7	42%	27%
Low (underutilized)	1	6%	22%
Not Applicable or Blank	8	47%	28%

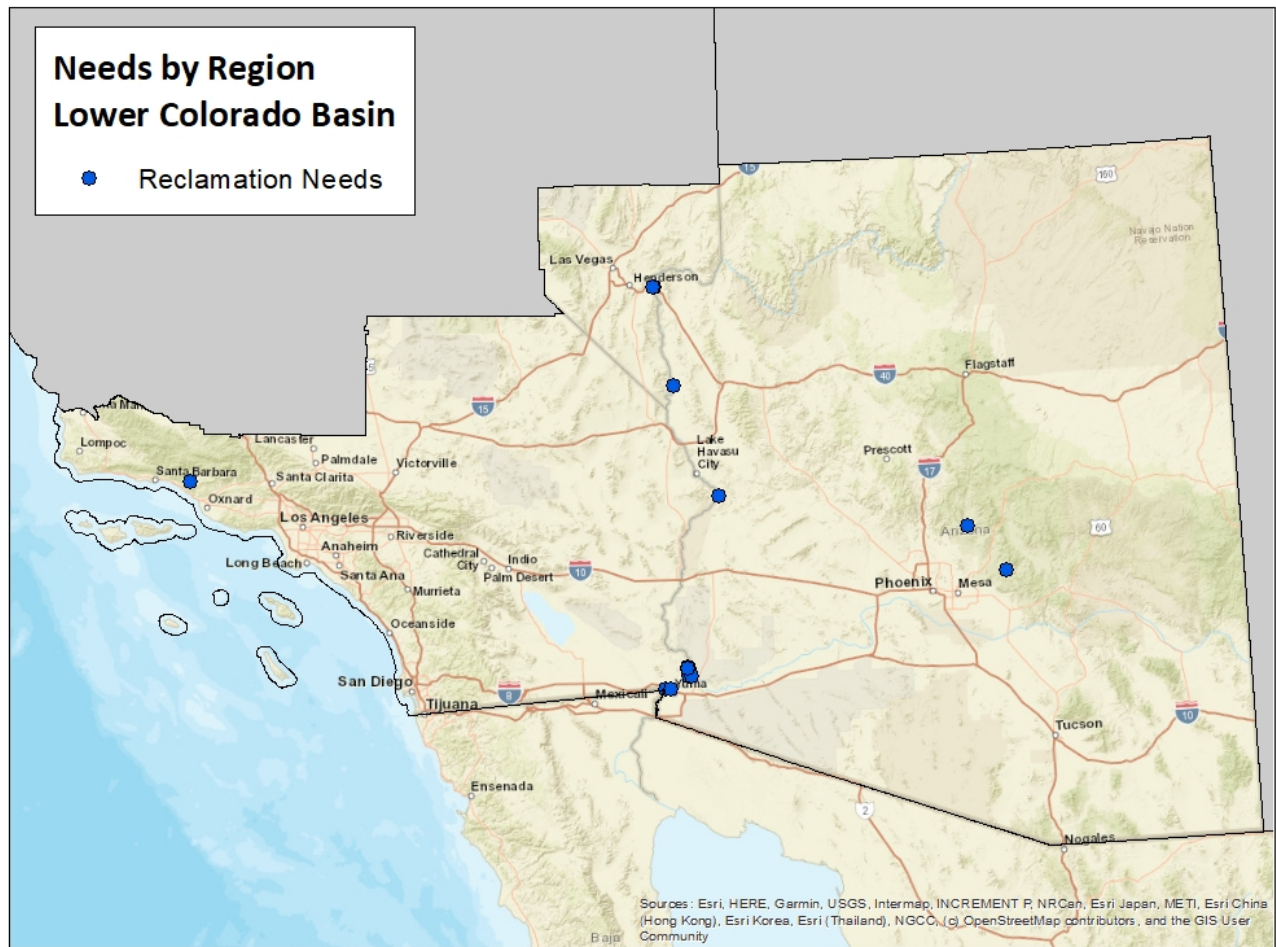
Location of Needs

The next page includes a map of the location of the needs in the Lower Colorado Basin Region.

Needs by Region
Lower Colorado Basin

- Reclamation Needs

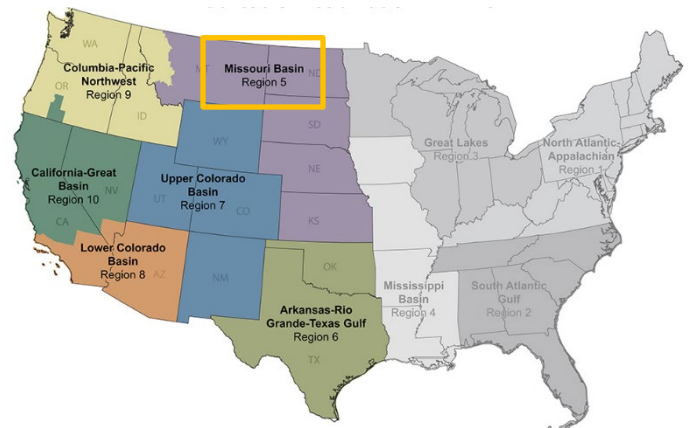
- Reclamation Needs



Appendix G. Missouri Basin 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	31
TOTAL	354

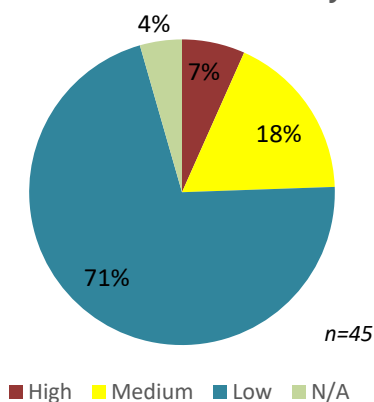


The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states "Breakdown by Region," it is referring to the percentage based on all needs entered in that region. When a table states "Breakdown Across All Regions," it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region's needs. When "All Reclamation Regions" is in the title, it is looking at how that need category distributed based on all needs entered.

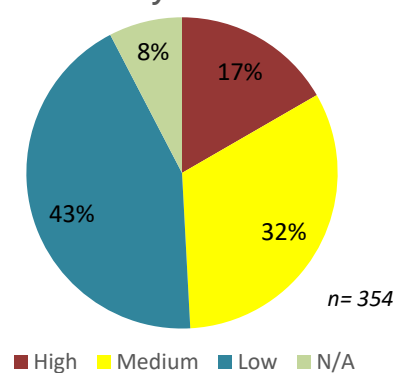
Priority of Need and Cost

The Missouri Basin Region identified 45 needs, for a total estimated median cost of \$25 million. The majority of needs were assessed to be low priority and estimated to cost less than \$1,000,000 for each need.

Missouri Basin - Priority



All Reclamation Regions - Priority of Need



	Priority of the Need (n=45)			
Estimated Cost Range	High	Medium	Low	N/A
Less than \$500K	0	6	29	0
\$500K-\$1 Million	2	2	3	0
\$1-\$5 Million	0	0	2	0
Greater than \$5 Million	1	0	0	0

Project and Asset Type of Needs

Sixty-four percent of the needs identified in the Missouri Basin Region were assessed to be capital improvements. This is identical to the national percentage of needs assessed to be capital improvements. Similar to all Reclamation regions, the Missouri Basin Region identified most (69%) of its needs to be either on roadways or parking lots.

Improvement Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Capital	29	64%	64%
Maintenance	15	33%	23%
Agreement	1	2%	2%
Operations	0	0%	4%
Planning	0	0%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Boat Ramp	8	28%	7%
Bridge	1	3%	12%
Culvert	0	0%	2%
Parking Lot	2	7%	17%
Roadway	18	62%	55%
Trail	0	0%	6%
Transit System	0	0%	0%

Facility Condition of Needs

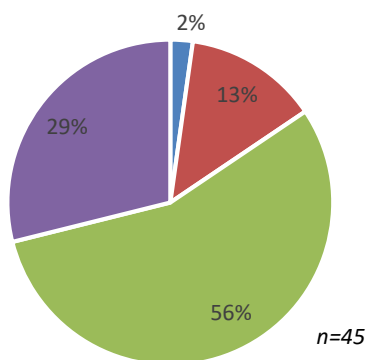
The Missouri Basin Region assessed that all the facilities their needs were located on were in poor condition, or that they will fail with no improvements. Nine, or 4% of the 45 needs, were assessed to be on sites with high or medium turn back risk. Across all Reclamation regions, 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (n=45)	Breakdown Across All Reclamation Regions (n=354)
High	1	0%	3%
Medium	8	4%	28%
Low	7	56%	7%
Not Applicable or Blank	29	40%	62%

Safety Risk Associated with Needs

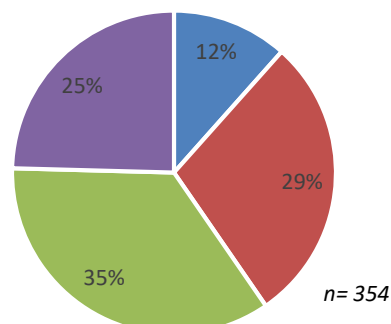
The Missouri Basin Region assessed most of their needs to have a medium safety risk, related to vehicle access. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.

Missouri Basin - Safety Risk Associated with Need



■ High ■ Medium ■ Low ■ Not Applicable or Blank

All Reclamation Regions - Safety Risk Associated with Need



■ High ■ Medium ■ Low ■ Not Applicable or Blank

Visitation Levels at Sites Associated with Needs

The Missouri Basin Region assessed 20% of their needs to be at sites that were experiencing visitation levels at or over capacity. Across all Reclamation regions, needs were fairly well dispersed amongst sites experiencing high, medium, and low visitation levels.

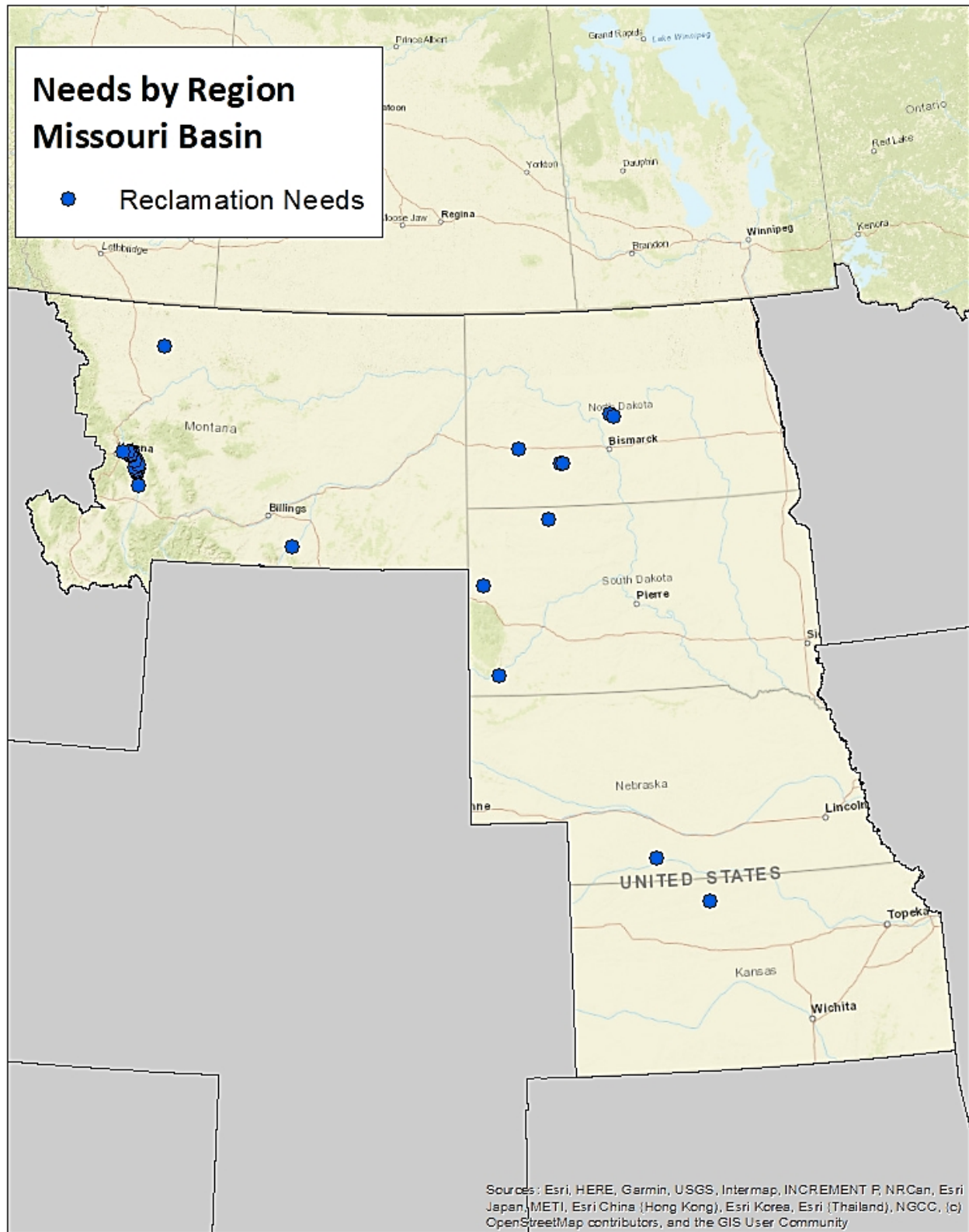
Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=45)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	9	20%	23%
Medium (near capacity)	14	31%	27%
Low (underutilized)	16	36%	22%
Not Applicable or Blank	6	13%	28%

Location of Needs

The next page includes a map of the location of the needs in the Missouri Basin Region.

Needs by Region Missouri Basin

● Reclamation Needs



Appendix H. Upper Colorado Basin 2018-2019 Transportation Needs Assessment Summary

National Summary of Results

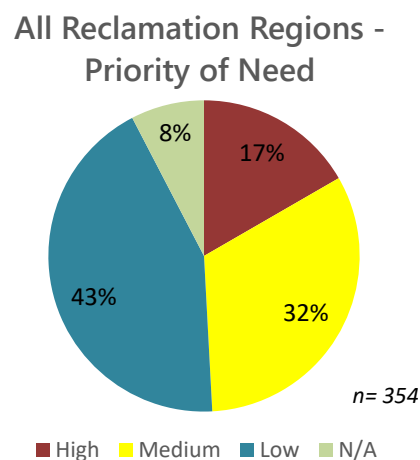
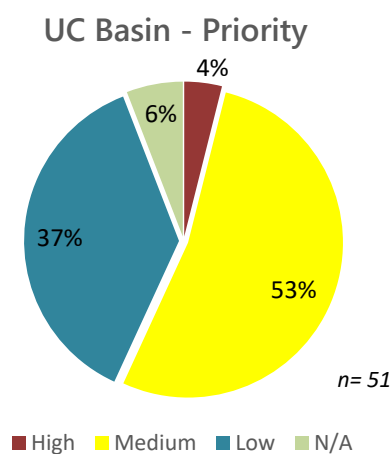
REGION	TOTAL NEEDS IDENTIFIED
Arkansas-Rio Grande-Texas Gulf	18
California-Great Basin	59
Columbia-Pacific Northwest	164
Lower Colorado Basin	17
Missouri Basin	45
Upper Colorado Basin	51
TOTAL	354



The following tables summarize details about the needs entered as they relate to the region, and also compared to the Reclamation-wide summary. When a table states “Breakdown by Region,” it is referring to the percentage based on all needs entered in that region. When a table states “Breakdown Across All Regions,” it is showing how that same need category or element broke down when looking at all 354 needs entered. Similarly, when a graph just includes the region name in the title, it is only looking at how that need category distributed amongst all that region’s needs. When “All Reclamation Regions” is in the title, it is looking at how that need category distributed based on all needs entered.

Priority of Need and Cost

The Upper Colorado Basin Region identified 51 needs, for a total estimated median cost of \$73.5 million. The majority of needs were assessed to be medium or low priority and estimated costs vary across all cost range categories.



Estimated Cost Range	Priority of the Need (n=51)			
	High	Medium	Low	N/A
Less than \$500K	0	7	10	0
\$500K-\$1 Million	0	4	7	0
\$1-\$5 Million	1	16	5	0
Greater than \$5 Million	1	0	0	0

Project and Asset Type of Needs

Eighty-one percent of the needs identified in the Upper Colorado Basin Region were assessed to be capital improvements. Across all Reclamation regions, 64% of the needs were assessed to be capital improvements. Similar to all Reclamation regions, the Upper Colorado Basin Region identified most (65%) of its needs to be either on roadways or parking lots.

Improvement Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Capital	42	83%	64%
Maintenance	6	12%	23%
Agreement	0	0%	2%
Operations	0	0%	4%
Planning	3	5%	7%

Project Type	# Needs Entered for the Region	Breakdown by Region	Breakdown Across All Reclamation Regions
Boat Ramp	0	0%	7%
Bridge	8	16%	12%
Culvert	0	0%	2%
Parking Lot	4	8%	17%
Roadway	37	73%	55%
Trail	2	2%	6%
Transit System	0	0%	0%

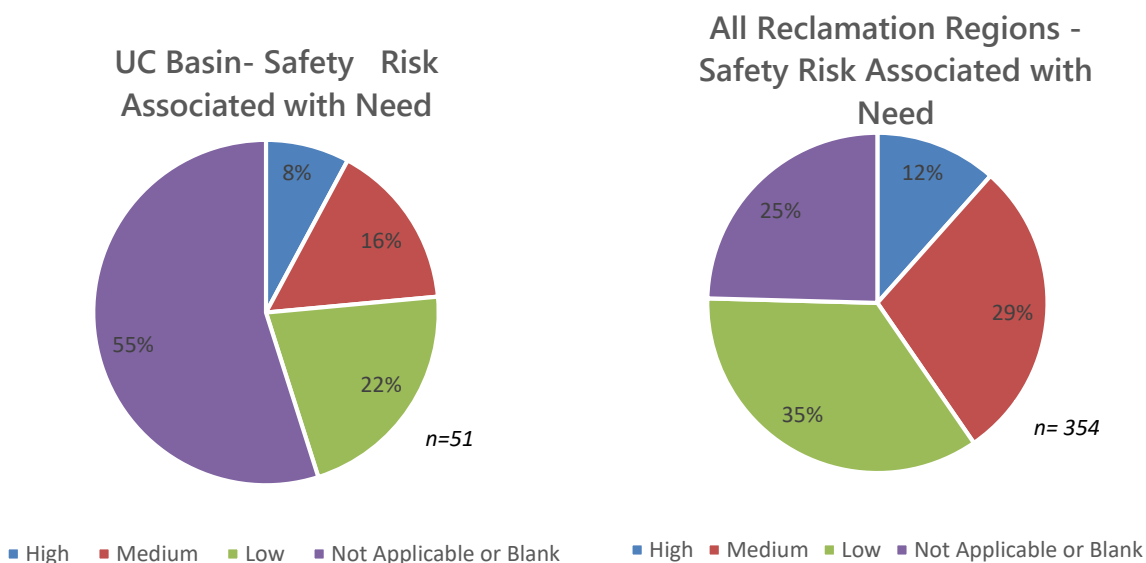
Facility Condition of Needs

The Upper Colorado Basin Region assessed that about a third of the facilities their needs were located on were in poor or failing condition, or that they will fail with no improvements. Only two of their needs were at sites with high or medium turn back risk. Across all Reclamation regions, 31% of all needs were identified to be at sites with high or medium turn back risk, but many regions also did not answer this question.

Turn Back Risk	# Needs Entered for the Region	Breakdown by Region (<i>n</i> =59)	Breakdown Across All Reclamation Regions (<i>n</i> =354)
High	1	2%	3%
Medium	1	4%	28%
Low	19	37%	7%
Not Applicable or Blank	30	59%	62%

Safety Risk Associated with Needs

The Upper Colorado Basin Region did not have an assessment of the safety risk associated with their needs for most of their entries. Across all Reclamation regions, almost two-thirds of the needs were assessed to have a medium or low safety risk.



Visitation Levels at Sites Associated with Needs

The Upper Colorado Basin Region assessed 18% of their needs to be at sites that were experiencing visitation levels at or over capacity. Across all Reclamation regions, needs were fairly well dispersed amongst sites experiencing high, medium, and low visitation levels.

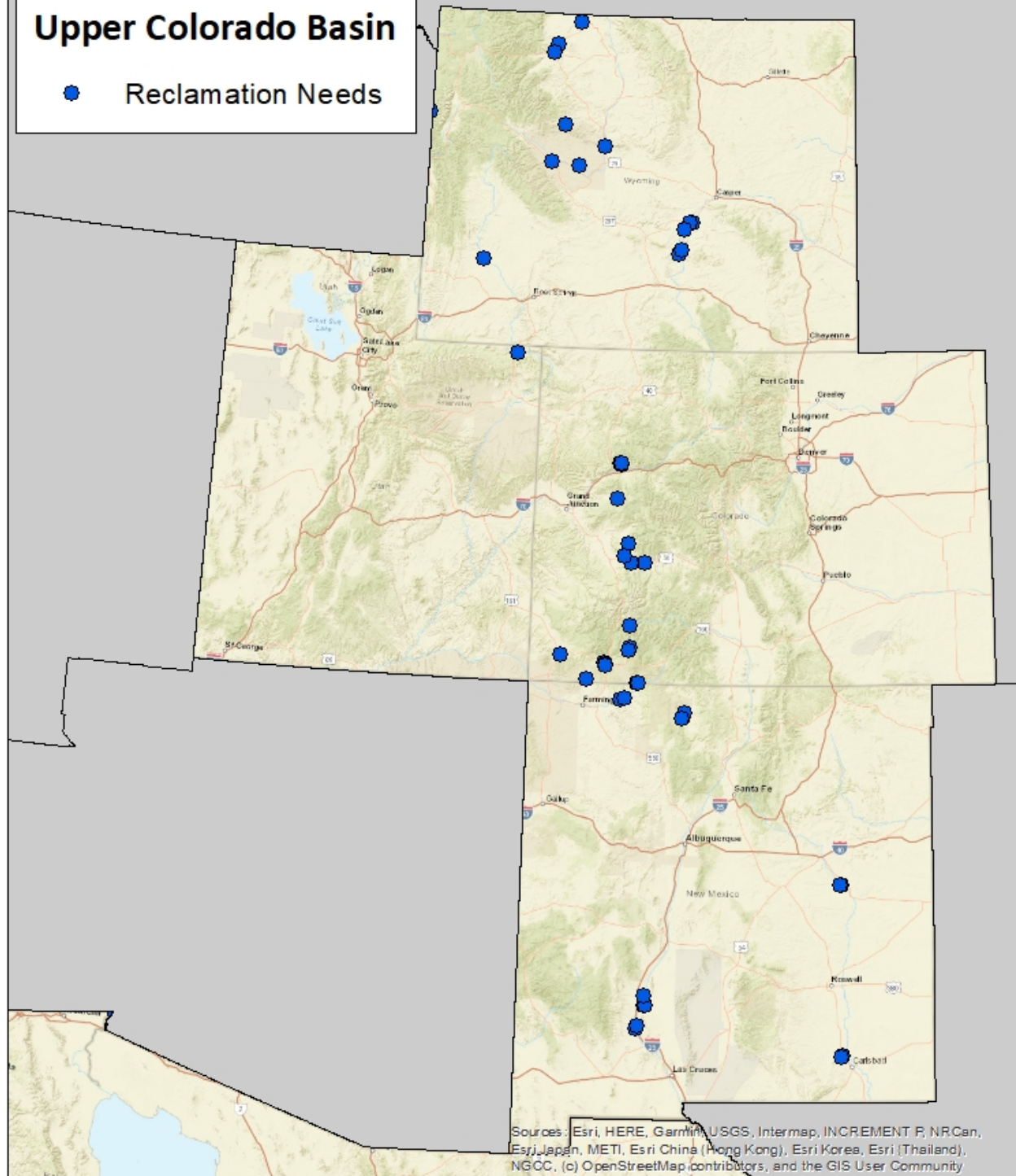
Visitation Levels at Sites Associated with Need	# Needs Entered for the Region	Breakdown by Region (n=17)	Breakdown Across All Reclamation Regions (n=354)
High (at or over capacity)	9	18%	23%
Medium (near capacity)	8	16%	27%
Low (underutilized)	10	19%	22%
Not Applicable or Blank	24	47%	28%

Location of Needs

The next page includes a map of the location of the needs in the Upper Colorado Basin Region.

Needs by Region Upper Colorado Basin

● Reclamation Needs



APPENDIX I. List of Federal Lands Access Program Projects Accessing Reclamation Lands

State	Project Name - Description	Delivery Agency	Applicant	Improvement type	Reclamation Land(s) Accessed	Selected by Programming Decision Committee (Year)	Delivery Year	FLAP Funds Requested (Rounded)	Total Project Costs (Rounded)
Arizona	CATTAIL COVE	Central Federal Lands Highway Division, FHWA	AZ State Parks	4R-Reconstruction-Relocation	Lower Colorado Region - Lake Havasu	2016	2019	\$4.3 Million	\$5.0 Million
California	BERRYESSA KNOXVILLE ROAD	Central Federal Lands Highway Division, FHWA	Napa County	3R-Maintenance-Resurfacing	Central California Area Office	2013	2018	\$5.7 Million	\$7.0 Million
California	JOHNNY CASH TRAIL PHASE 2	City of Folsom	City of Folsom	Trail	Mid Pacific Region	2013	2014	\$872 Thousand	\$2.0 Million
California	OAK PARKWAY TRAIL UNDERPASS	City of Folsom	City of Folsom	Trail	Folsom Lake	2018	2021	\$1.1 Million	\$2.1 Million
Colorado	HORSETOOTH RES AND CARTER LAKE	Central Federal Lands Highway Division, FHWA	Larimer County	3R-Maintenance-Resurfacing	Horsetooth Reservoir and Carter Lake	2020	2023	\$9.0 Million	\$12.0 Million
Colorado	LAKE NIGHTHORSE ACCESS	Central Federal Lands Highway Division, FHWA	City of Durango	3R-Maintenance-Resurfacing	Lake Nighthorse	2020	2024	\$3.8 Million	\$5.0 Million
Colorado	LAKE PUEBLO ROAD & TRAIL IMPROVEMENTS	Central Federal Lands Highway Division, FHWA	State of Colorado	Trail	Lake Pueblo State Park	2013	2015	\$8.2 Million	\$10.8 Million
Colorado	NICHOLS ROAD	Central Federal Lands Highway Division, FHWA	Pueblo West Metro	4R-Reconstruction-Relocation	Pueblo Reservoir	2016	2022	\$1.8 Million	\$2.1 Million
Idaho	MARINA ROAD; SH-39 TO PACIFIC ROAD	Western Federal Lands Highway Division, FHWA	American Falls Reservoir	4R-Reconstruction-Relocation		2016	2017	\$457 Thousand	\$536 Thousand
Kansas	CAWKER CITY CAUSEWAY	Central Federal Lands Highway Division, FHWA	Mitchell County	3R-Maintenance-Resurfacing	Waconda Lake	2015	2018	\$573 Thousand	\$716 Thousand
Kansas	CHENEY RESERVOIR ACCESS	Central Federal Lands Highway Division, FHWA	Kingman County	3R-Maintenance-Resurfacing		2018	2021	\$938 Thousand	\$1.3 Million
Montana	FRESNO RESERVOIR ROAD SURFACE PRESERVATION PROJECT	Western Federal Lands Highway Division, FHWA	Hill County	3R-Maintenance-Resurfacing	Fresno Reservoir	2014	2018	\$395 Thousand	\$456 Thousand
Montana	GOOSE BAY ROAD	Broadwater County	Broadwater County	3R-Maintenance-Resurfacing	Campground area on Canyon Ferry Reservoir	2016	2021	\$1.3 Million	\$1.5 Million
Montana	LAKE ELWELL BOR LANDS ACCESS	Western Federal Lands Highway Division, FHWA	Liberty County	3R-Maintenance-Resurfacing	Lake Elwell, Tiber Dam, Marias River Recreation Areas	2016	2021	\$1 Million	\$1.2 Million
Nebraska	CALAMUS RESERVOIR ACCESS	Nebraska DOT	Garfield County	3R-Maintenance-Resurfacing	Calamus Reservoir	2018	2024	\$1.3 Million	\$4.2 Million
New Mexico	COTTONWOOD CAMPGROUND BRIDGE	Central Federal Lands Highway Division, FHWA	San Juan County	Bridge-New	Lake Navajo	2022	2022	\$2.3 Million	\$2.7 Million
New Mexico	LAKESHORE ROAD	Central Federal Lands Highway Division, FHWA	Sierra County	Bridge-New	Elephant Butte Reservoir	2021	2021	\$10.4 Million	\$12.2 Million
North Dakota	PATTERSON LAKE ACCESS ROAD	Central Federal Lands Highway Division, FHWA	Stark County	3R-Maintenance-Resurfacing	E.A. Patterson Lake	2014	2015	\$229 Thousand	\$283 Thousand
North Dakota	PELICAN POINT ACCESS ROAD	Central Federal Lands Highway Division, FHWA	Stutsman County	4R-Reconstruction-Relocation	Pelican Point	2013	2014	\$373 Thousand	\$461 Thousand
Oklahoma	LAKE THUNDERBIRD ACCESS	Central Federal Lands Highway Division, FHWA	OK State Parks	3R-Maintenance-Resurfacing	Norman Project - Lake Thunderbird	2019	2023	\$1.2 Million	\$1.5 Million
Oregon	HAGG LAKE PERIMETER ROAD	Western Federal Lands Highway Division, FHWA	Washington County	4R-Reconstruction-Relocation	Scoggins Dam & Henry Hagg Lake	2016	2017	\$5.9 Million	\$8.6 Million
Oregon	HAGG LAKE PERIMETER ROAD; MP 2.7 SLIDE REPAIR	Western Federal Lands Highway Division, FHWA	Washington County	4R-Reconstruction-Relocation	Scoggins Dam & Henry Hagg Lake	2016	2017	\$2.8 Million	\$3.1 Million
Utah	CAUSEY RESERVOIR ACCESS	Central Federal Lands Highway Division, FHWA	Weber County	3R-Maintenance-Resurfacing	Causey Dam	2019	2025	\$7.4 Million	\$9.2 Million
Wyoming	GROS VENTRE ROAD	Central Federal Lands Highway Division, FHWA	Natrona County	3R-Maintenance-Resurfacing	Alcova Reservoir	2018	2020	\$3.2 Million	\$4.0 Million
Wyoming	KORTES ROAD	Central Federal Lands Highway Division, FHWA	Natrona County	3R-Maintenance-Resurfacing	Great Plains Region	2013	2021	\$10.5 Million	\$11.6 Million
Total Projects	25							Estimated Total Project Costs	\$110 Million

APPENDIX J.

Road Inventory Program Comparison to 2018-2019 Transportation Needs Assessment

The Reclamation Transportation Needs Assessment was performed in 2018 and 2019 prior to Reclamation receiving its first Road Inventory Program (RIP) data with treatment costs. Since that time, the RIP data for the Lower Colorado Basin and Upper Colorado Basin Regions has been completed. The following analysis compares the transportation needs collected in the Needs Assessment to the RIP data to see what percent of RIP treatment needs were collected in the Needs Assessment.

LCB Region

The Needs Assessment for the LCB Region identified 16 needs for a total of \$28.75 M. The RIP data for LCB identified \$24.2 M in RIP needs on roads and parking lots including pavement preservation activities. Within the Needs Assessment, there were five needs that were also fully or partially identified in the RIP treatment needs for a total of \$9 M. This means that \$15.2 M of RIP needs, or 63 percent, were not captured in the Needs Assessment.

UCB Region

The Needs Assessment for the UCB Region identified 39 needs for a total of \$67.5 M. The RIP data for UCB identified \$71.2 M in RIP needs on roads and parking lots including pavement preservation activities. Within the Needs Assessment, there were 22 needs that were also fully or partially identified in the RIP treatment needs for a total of \$48.25 M. This means that \$22.95 M of RIP needs, or 32 percent, were not captured in the Needs Assessment.

Reclamation-Wide

After combining both regions, approximately 40 percent of the RIP needs were not captured in the Needs Assessment. In addition, Reclamation only has RIP data on two of the five regions. The following table extrapolates the RIP treatment needs for the two regions across all of Reclamation's public road mileage.

	Public Road Costs	Public Parking Costs	Sum of Treatment Costs	Sum of Public Miles	Cost per Mile
LCB	\$16,009,402	\$8,200,890	\$24,210,292	478.13	\$50,635
UCB	\$45,022,781	\$26,197,457	\$71,220,238	472.97	\$150,581
TOTAL	\$61,032,183	\$34,398,347	\$95,430,530	951.1	\$100,337

2020 Reclamation Reported Public Roads	2,857
Estimated Maintenance Need per Mile	\$100,337
Estimated Total Road Network Maintenance Need	\$286,662,837
40% of RIP Need (Estimate of RIP needs not captured in Needs Assessment)	\$114,665,135

Total Need Timeframe and Estimating Total Overall Need

The LRTP is currently based on a 20-year plan. This means that the needs collected through the assessment were supposed to represent Reclamation's need over 20 years. Regions were asked to consider needs over the next 20 years. However, the vast majority of needs collected are needs that are needed today, not 10-15 years from now. The assessment assumes that if all needs were completed today, then there would be no more needs over the next 20 years. However, it was not able to capture and incorporate reoccurring maintenance costs like chip seals, overlays, full pavement replacements, gravel replacements, guardrail replacement, etc. The total needs collected through the needs assessment was \$332 million (with inflation). While this number is used as part of the overall need estimate, it is again assumed this number is reflective of only about 10 years of need, versus 20 years. It is expected this number will increase over the next 5 years.

Reclamation is still in the first cycle of RIP collection, but based on experience from other Federal Land Management Agencies, RIP needs tend to go up over time. Condition goes down over time. This is similar for the bridge program. Bridge inspections are performed typically every 2 years. However, using the RIP analysis available now, and accounting for overlap with the needs assessment, it is estimated above that there is at least another \$132 million (with inflation) in roadway improvements that will be needed. Again, this need is considered to be in the immediate next 10 years, and expected to grow as more data is gathered.

These two estimates, along with consideration for fixing Reclamation's 25 structurally deficient bridges and some consideration for trail maintenance, will be used to determine Reclamation's need over the next year.

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