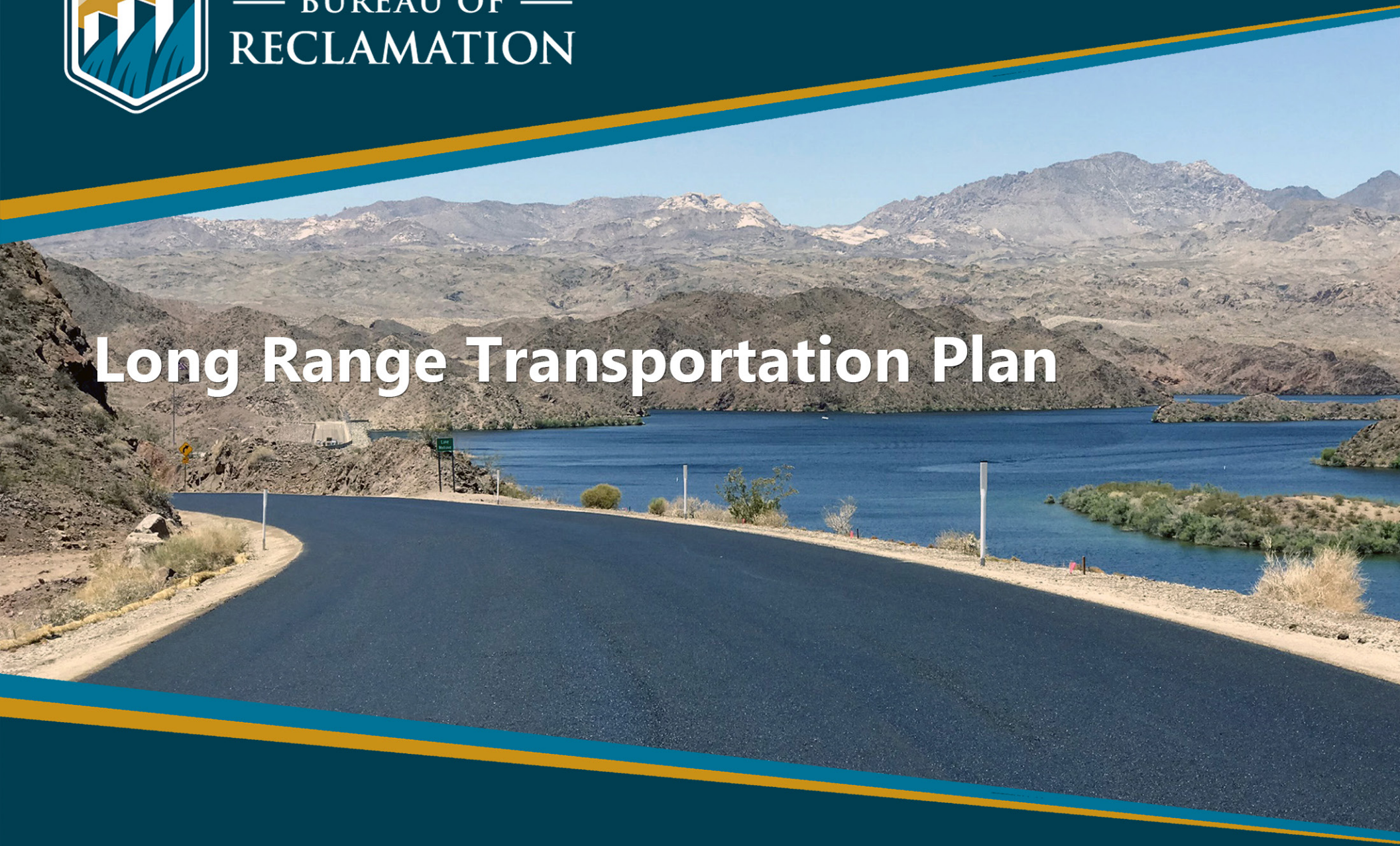
BUREAU OF RECLAMATION

Long Range Transportation Plan



U.S. Department of the Interior

May 2021

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.

Cover Photo: Davis Dam Road, Arizona (FHWA-Central Federal Lands Highway Division)

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

Table of Contents

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.

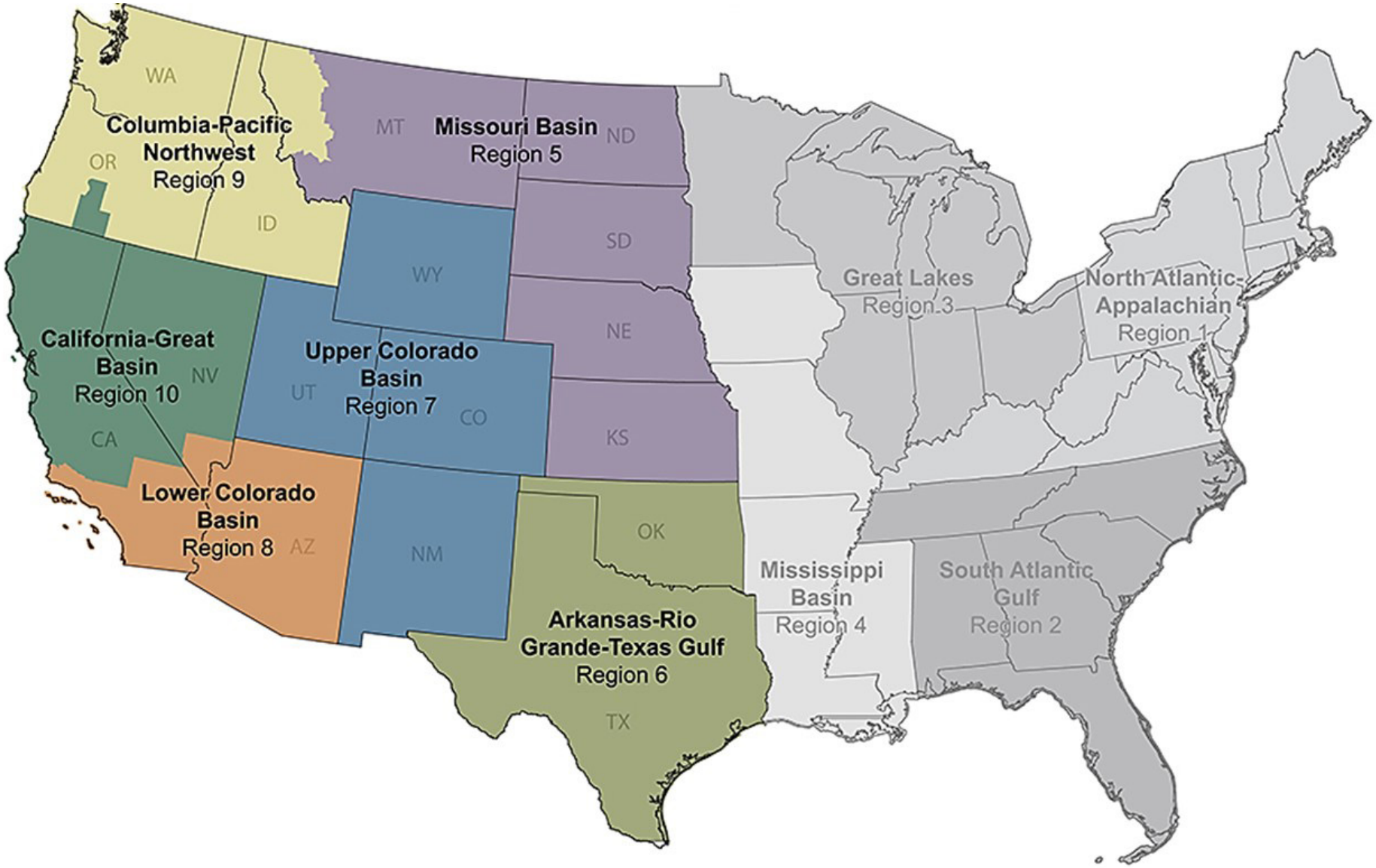


Figure 1. Bureau of Reclamation regions: Reclamation lands are only located in the 17 western states, meaning that Reclamation is present in only 6 of the Department of the Interior Unified Regions.

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 §135[2]). This LRTP is consistent with those processes and legal requirements.

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

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.

1 LRTPs are required for use of Title 23 funds. These funds can only be used on publicly accessible facilties.
2 The full text of Title 23, United States Code is located at: https://www.fhwa.dot.gov/legsregs/title23.pdf. Provisions specific to Sec. 201 and Transportation Planning are located on page 174.

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.

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.

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.

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.

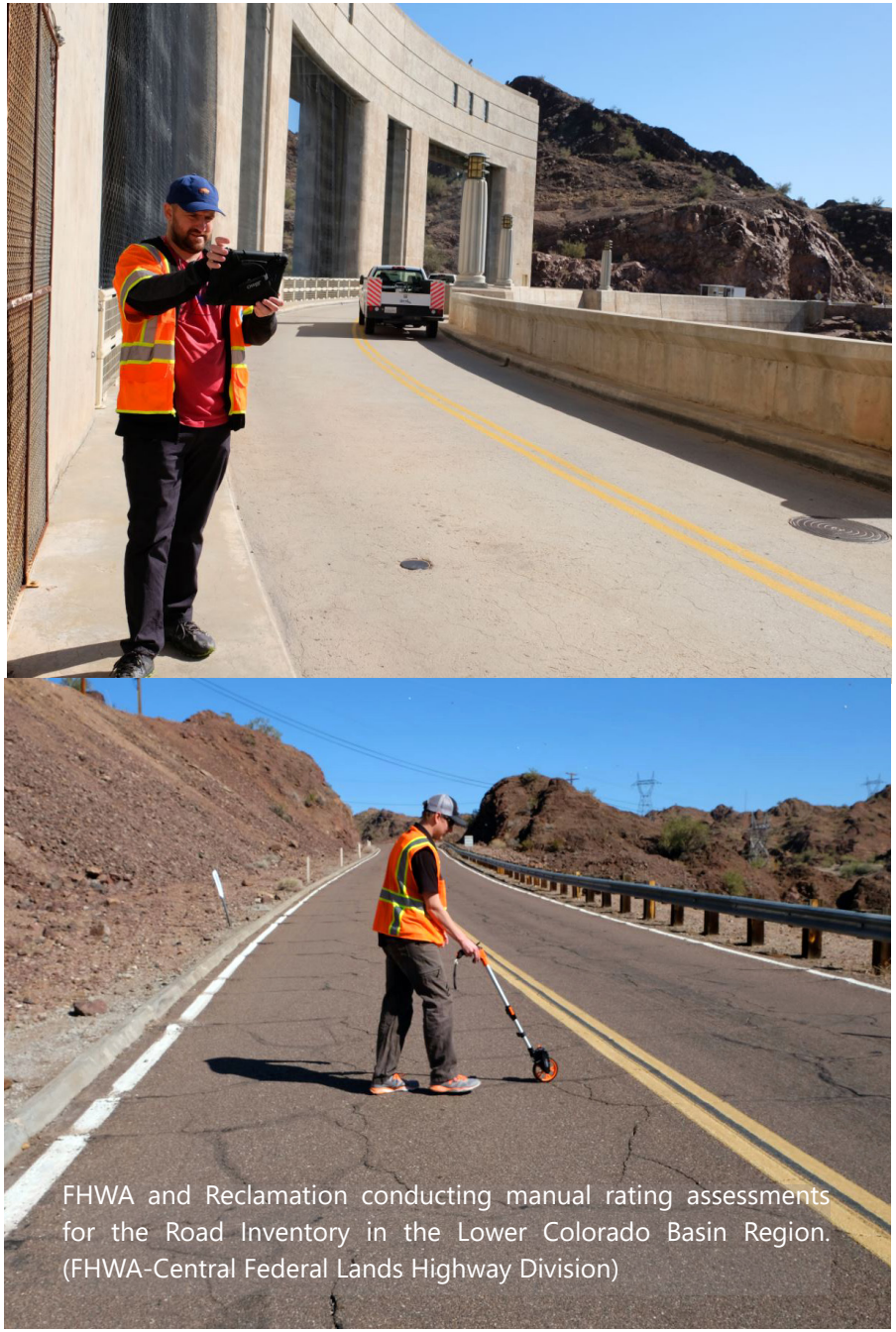
Existing Conditions: System Preservation

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%

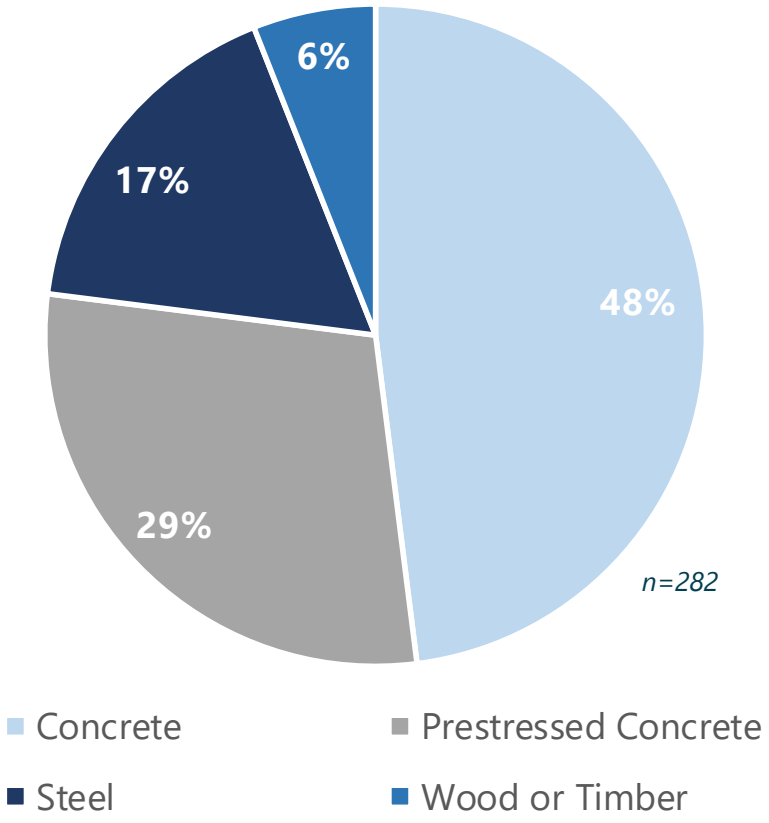


Figure 2. Reclamation bridge structure types

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 Classifcation	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

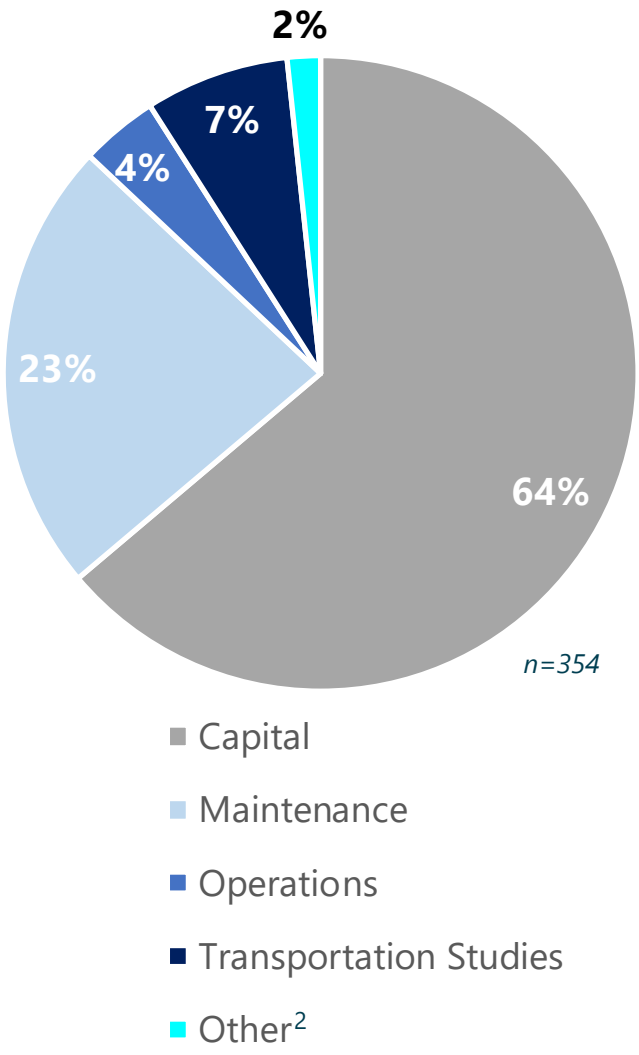


Figure 3. Reclamation needs by project type

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

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.

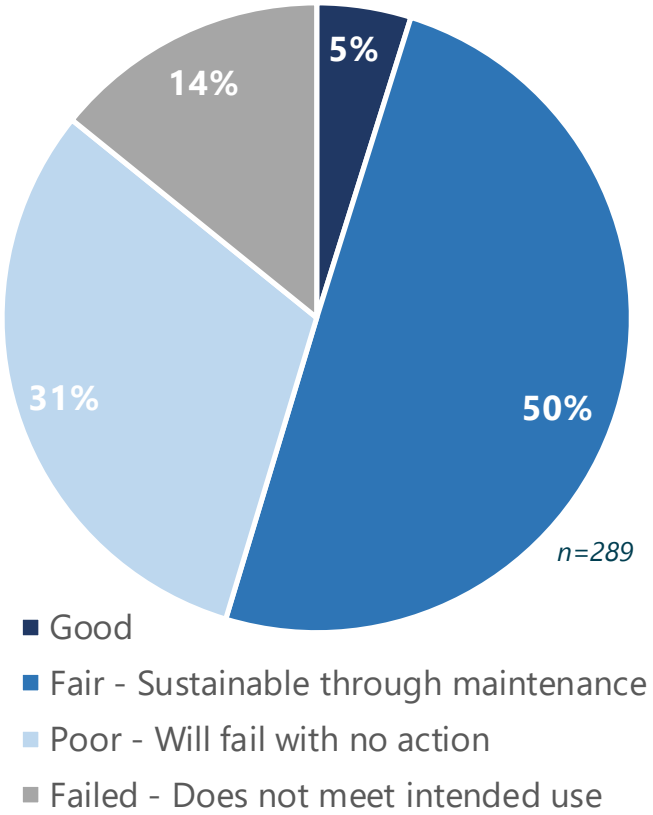


Figure 4. Assessment of transportation facility condition

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.

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.

.

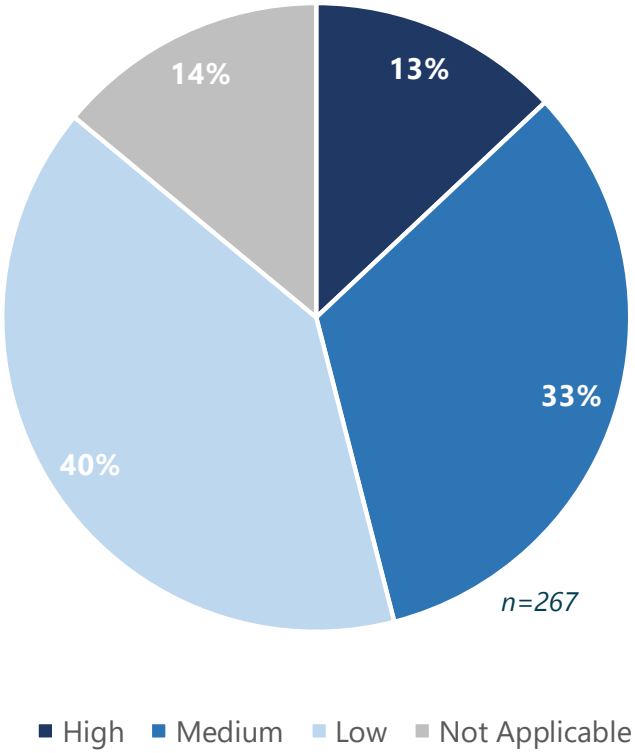


Figure 5. Safety risk associated with the need

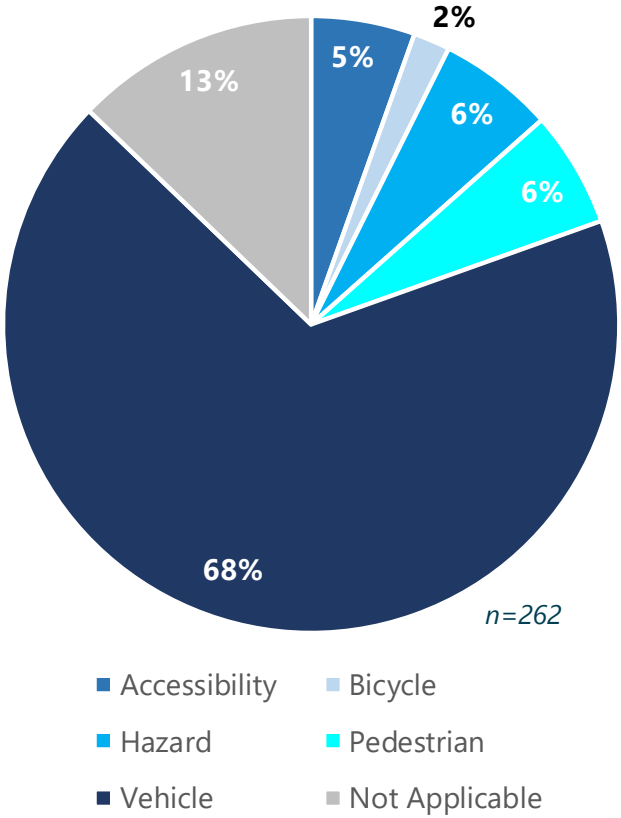


Figure 6. Type of safety concern

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.

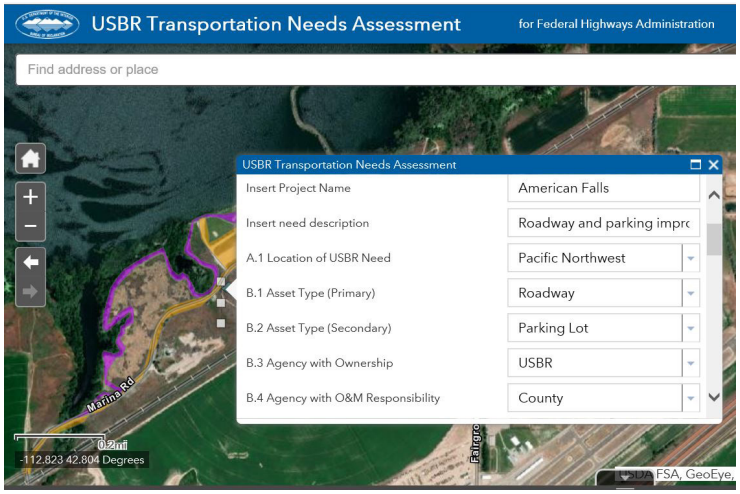


Figure 7. A snapshot of the ArcGIS tool that regions used to enter and describe transportation needs

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]

Pit River Bridge, California (Caltrans)

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

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.

FEDERAL LANDS HIGHWAY

BUREAU OF RECLAMATION

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, typcially 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.

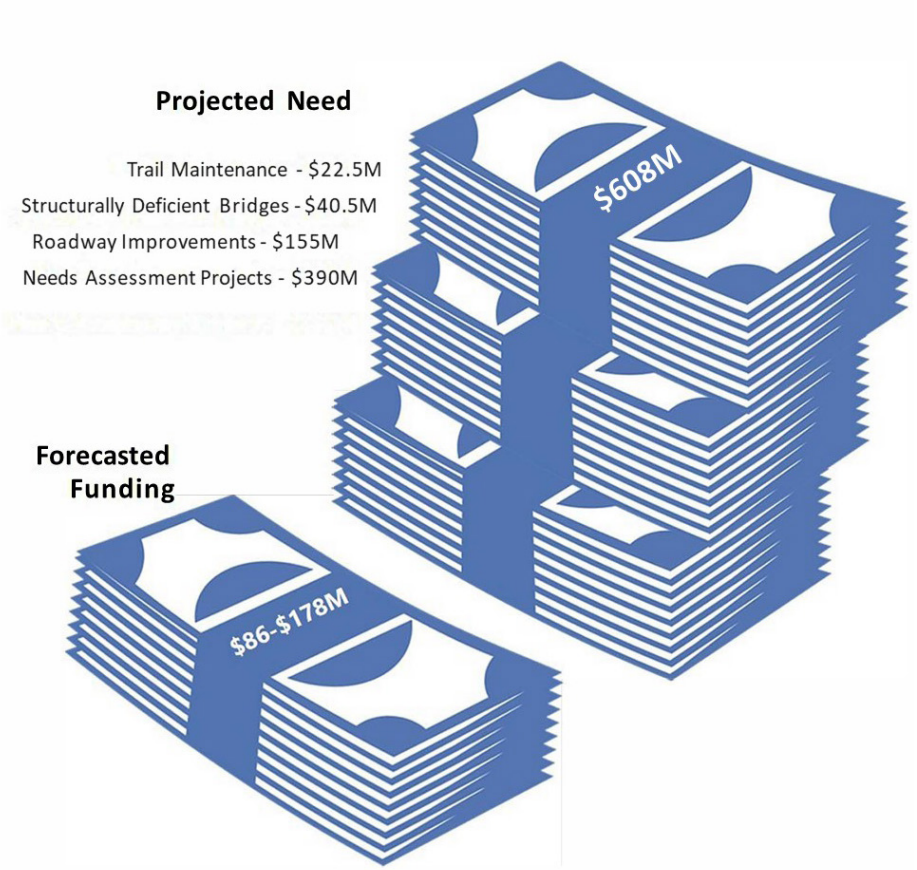
As indicated earlier in the plan, a 10-year implementation strategy will be undertaken to help Reclamation better link its 20-year vision for improving its transportation system to its shorter-term project delivery decision-making process. The implementation strategy will focus on an evaluation of competing 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)