

IMR Long Range Transportation Plan:
Transportation in Context

Financial Analysis
Technical Report

6/7/2013

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PURPOSE

This report presents the methods, assumptions, and results for the transportation financial forecasts for the NPS Intermountain Region (IMR) out to the year 2035. These results will be used in development of the IMR Long Range Transportation Plan (LRTP).

The general approach was to identify, review, and analyze historic and current transportation funding expenditures (obligations) in the region, then develop three trends for the future to 2035. Each trend represents a potential level of expected total funds over the next 20 years. One future trend will be selected to apply to the Needs Assessment and the subsequent LRTP development scenarios.

This remainder of this report is divided into three sections:

- Historic (2007–2011)
- Current (2012-2017) + Future (2018-2035)
- Conclusions and Recommendations

All dollars are in year of expenditure (YOE) unless otherwise noted.

GENERAL METHODS

This report follows 2011 WASO financial guidance to support the development of long range transportation plans. That guidance includes:

- Review the past five years of funding obligations (i.e., the existing funding) and gather actual and/or modeled forecasted need and expected revenues for five years out (using actual data and models), ten years out (using projections and models), and projections to 20 years (using projections and models.)
- Include data and trends related to historical obligations and current funding that affects NPS multimodal transportation systems.
- Review and incorporate economic and financial trends in forecasted revenue projections.
- Evaluate multiple funding scenarios and investment strategies that target different types of investments and services in a strategic manner to achieve long-term financial sustainability and accomplishment of the goals of the LRTP and the National Park Service. (This item will be addressed in future Task 7, Develop Planning Scenarios.)
- The Intermountain Region LRTP has adopted the use of “Focus Parks” to help illustrate the effects on representative parks. The 12 selected focus parks include some of the largest, most transportation-intensive in the region and include all those with NPS-operated ATS. These 12 parks, as a group, represent over 80% of funding over the last five years. The 12 focus parks are: Bryce, Glacier, Grand Teton, Rocky Mountain, San Antonio Missions, Yellowstone, Chickasaw, Grand Canyon, Mesa Verde, Saguaro, White Sands, and Zion.

Appendix B provides detailed backup for all of the assumptions, data and calculations used in the remainder of this report.

KEY FINDINGS BY GOAL AREA

The following key findings identified in this report are listed by goal area.

Figure 1. Key Findings by Goal Area

Key Findings by Goal Area	
Asset Management	Current practices and programs focus on the management of existing roadway and parking assets through maintenance and component renewal/recapitalization. The majority of forecast funding is anticipated to continue to be focused in these two areas through 2035. Conducting deferred maintenance on-time consistently is important to avoid having necessary maintenance escalate to component renewals needs in the long-term.
Mobility, Access, and Connectivity	Capital improvement projects have recently been in the form of new bicycle/multi-use paths increasing mobility and access for non-motorized modes of travel. In additional major investments have been made in the purchase/replacement of transit bus fleets and related support facilities such as shelters and signs. Few major Capital Investments/New Construction work types are being built to add new capacity or new connections.
Visitor Experience	Maintenance and component renewal/recapitalization projects are most likely to impact visitor experience. The typical projects in these categories focus on the reconstruction and resurfacing of existing facilities. The majority of forecast finances are anticipated in these two areas.
Resource Protection	Resource protection elements are typically included as part of much larger roadway, bridge and parking projects. As a result expenditures at the Capital Improvement, Component Renewal/Recapitalization and Maintenance levels impacts resource protection, particularly for projects that involved historic roads and bridges. Other than those projects, few examples of discreet projects specifically designed to address resource protection are identifiable in the transportation obligation record.
Sustainable Operations	Historic obligations and near-term programmed funds reflect relatively steady funding at a gross level. Fluctuations by year in spending are evident in individual fund sources, dependent on year to year changes in project readiness, design, environmental process, etc. While funds have been reasonably steady through the near-term, a decrease in purchasing power is observed due to the effects of inflation. This observation does not include the spike resulting from one-time Congressional funding, such as ARRA in 2009. Significant flexibility exists to match money with needs and projects across and among programs which is evident from the same fund source being used in multiple work types. Overall however, the total funding available is a zero sum game; under current circumstances, if transportation takes something from another fund source, someone else in NPS loses funding. Individual parks are already shifting funds from other sources to cover transit costs, they are typically doing this with FLREA and ONPS funds, and the trend is likely to continue. Transit operation expenses are increasing at an unsustainable rate. It is anticipated that around 2014 individual parks will need to consider shifting funds from other sources to continue to fund current ATS operations.

HISTORIC OBLIGATIONS

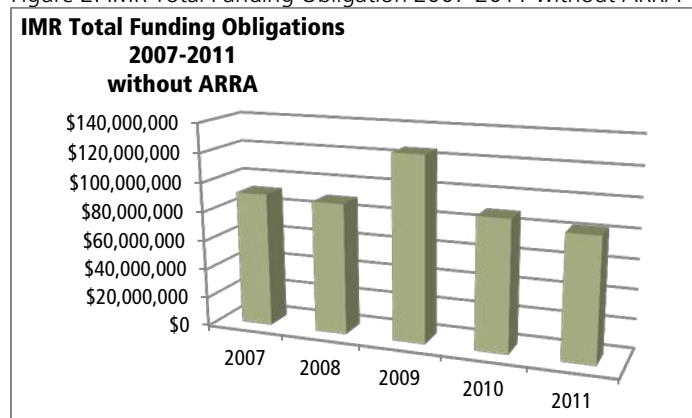
This section summarizes the historic obligations in years 2007 through 2011 to set the baseline for estimating future trends. This section is divided into three subsections covering the following:

- Historic Total Obligations by Year and by Fund Source
- Obligations by Work Types (2007 – 2011)
- Funding: Focus Parks vs. Non-Focus Parks

HISTORIC TOTAL OBLIGATIONS BY YEAR AND BY FUND SOURCE

The “historic” period included the years 2007 through 2011. Historic expenditures from NPS financial records over the five year period were reviewed and the relevant transportation projects were identified. Data sources included the NPS Administrative Financial System for National Park Service expenditures and the Park Transportation Allocation and Tracking System (PTATS) for FHWA expenditures. Figure 2 shows the total obligations by year during that period for the selected fund sources, not including one-time American Recovery and Reinvestment Act (ARRA) funding in 2009. The typical total fund sources totaled in the range of \$80 million to \$90 million, although 2009 funding spiked to \$125 million even without ARRA.

Figure 2. IMR Total Funding Obligation 2007-2011 without ARRA



While the NPS roster of applicable fund sources lists over 60 potential sources, this effort focused on the largest 14 fund sources (ARRA had been the 15th). Figure 3 lists those 14 fund sources and the average annual value in two cases – average over all five historic years and average over four years without 2009, which was high even without ARRA. That table shows that FHWA Cat I- 3R & 4R is the biggest fund source at about 60% of the total of the selected fund sources. The smallest fund source in the list is Line Item Construction. The four-year average total of these fund sources was \$88 million while the five-year average was \$96 million. The four-year average is used in this analysis as it best represents the typical fund sources available in that period. The spike in 2009 even without ARRA is the result of a coincidental accumulation of fund sources over several years that were obligated in 2009.

The IMR Transportation program has a varying degree of direct administration over the largest fund sources, ranging from decision-making authority over the use of Cat I funds to shared authority over concession franchise fees, to little authority over expenditures managed by WASO, park units, or FHWA. See Figure 3 – IMR Fund Sources, below. For more information about funding sources, please see *NPS Transportation Funding Sources – Final Report*; Cambridge Systematics, Inc.; January 11, 2013.

Figure 3. IMR Fund Sources

Fund Source	Administration	4-Year Avg *	5-Year Avg	4-Year %	5-Year %
FHWA Cat I - 3R & 4R	NPS Regional Office	\$51,310,000	\$55,620,000	58.1%	58.1%
Operational Base - Park	Park Unit	\$10,550,000	\$10,530,000	11.9%	11.0%
Rec Fee 80%	Park Unit	\$8,170,000	\$10,680,000	9.3%	11.2%
Transportation Fee	Park Unit	\$6,960,000	\$6,960,000	7.9%	7.3%
Cyclic Maintenance	NPS Regional Office	\$4,940,000	\$5,460,000	5.6%	5.7%
Repair/Rehab	WASO	\$990,000	\$1,260,000	1.1%	1.3%
TRIP/ATPPL	DOI / FHWA / FTA	\$810,000	\$680,000	0.9%	0.7%
FHWA Cat III - ATP	WASO	\$470,000	\$630,000	0.5%	0.7%
Rec Fee 20%	NPS Regional Office	\$420,000	\$500,000	0.5%	0.5%
Concession Franchise 80%	NPS Regional Office / Park	\$270,000	\$250,000	0.3%	0.3%
FHWA - Other Transportation	FHWA	\$200,000	\$180,000	0.2%	0.2%
FHWA ERFO	FHWA	\$160,000	\$190,000	0.2%	0.2%
Line Item Construction	DOI	\$50,000	\$70,000	0.1%	0.1%
Emergency Storm & Flood	WASO	\$40,000	\$30,000	0.0%	0.0%
Other Funds	Varies WASO / NPS Regional Office / Park	\$2,960,000	\$2,690,000	3.4%	2.8%
IMR TOTAL		\$88,290,000	\$95,740,000	100.0%	100.0%

*Selected for average base year funding

Figure 4 identifies the work types the identified fund sources have funded over the historic five year record of projects. As the table demonstrates, there is not a clear connection between fund source and work type. Several of the historic primary fund sources can be used to fund projects in multiple work types. As a result, program management and funding sources do not create an exact match.

Future fund sources are anticipated to “map” to the five work types in a similar manner. With the passage of MAP-21 however, some existing fund sources will no longer be available. Most notably the TRIP/ATPPL fund source will be replaced with the Federal Lands Access Program. The Federal Lands Transportation Program absorbed several previous sources, leaving more flexibility to fund activities as appropriate. Several Title 16 (DOI) and Title 23 (FHWA) fund sources were also eliminated in MAP-21. However, as noted in Figure 4, several Title 16 and 23 funds were not identified as being utilized by transportation projects over the past five years. As a result, the elimination of these funds under MAP-21 was not considered to hinder the future funding projections for the region.

Figure 4. IMR Historic Fund Sources per Work Type

Fund Source	Maintenance	Component Renewal/ Recapitalization	Capital Improvement/ New Construction	Transit Operations	Planning
Primary Fund Sources					
ARRA (Excluded from annual average)	✓				
FHWA Cat I – 3R & 4R	✓	✓	✓		✓
Operational Base – Park	✓			✓	
Rec Fee 80%	✓	✓	✓	✓	✓
Transportation Fee				✓	
Cyclic Maintenance	✓	✓			
Repair/Rehab	✓	✓			
TRIP/ATPPL	✓		✓		✓
FHWA Cat III – ATP		✓	✓		✓
Rec Fee 20%	✓	✓			
Concession Franchise 80%	✓		✓		✓
FHWA – Other Transportation			✓		
FHWA ERFO	✓				
Line Item Construction	✓				
Emergency Storm & Flood	✓				
Title 16 – Other Fund Sources					
Challenge Cost Share		✓			
Donations: NPS (Expense)		✓			
Cyclic Maintenance – Park Management		✓			
Regular Cultural Cyclic Maintenance Program	✓	✓			
Equipment Replacement	✓	✓			
Operational Base – Region & Central Offices	✓				
Reimbursable Purchase of Replacement Equipment		✓			
GMP					✓
NPP 70%	✓	✓		✓	✓
Reimbursable – Non-Recurring Fed	✓	✓			
Reimbursable – Non-Recurring Non-Fed	✓				
Reimbursable – Recurring Fed	✓	✓	✓		
Reimbursable – Recurring Non-Fed	✓				
Wildland Fire Management	✓	✓			
Title 23 – Other Fund Sources					
Dam Safety		✓			
National Trail System Development Program		✓	✓		
Rivers & Trails Program					✓
FHWA-580					✓

Note: Several Title 16 and 23 fund sources were not verified as being used during the five year historic period, based on the individual project records. The unused funds include: Centennial Challenge Signature, Concession Reimbursable Services-Other, Cultural Resource Preservation Program, Donation, Donations: Grants, Donations: NPS(Capital Projects), Donations: Centennial Challenge, ONPS-Emergency Storm Damage, Reimbursable-Utilities, FHWA (Managed) Planning, NPP 30%, Regionally Funded Project, Visitor Information Program (VIP), YCC, YCC Priority Projects, YIP & YPP, FLHP-Highway Safety Program.

OBLIGATIONS BY WORK TYPE (2007-2011)

Figure 5 shows the six work types that the National Park Service designated for this financial analysis with the principal cost elements contained within each work type.

Figure 5. Asset Types/Cost Elements in Work Types

Intermountain Region Work Types for LRTP Needs Analysis				
Maintenance	Component Renewal/ Recapitalization	Capital Improvement/ New Construction	Transit Operations	Planning
Roads Overlooks/Vistas Parking Bridge Signage Trails (Multiuse/Connector/Urban) Culverts/Drainage Guardrail Traffic Controls Transit Facilities and Vehicles Transit Shelters Transportation Buildings	Roads Parking Transit Vehicle Purchase/Replacement Bridge Signage Culvert/Drainage Guardrail Overlooks/Vistas Traffic Controls Vehicle Wash Transportation Buildings	Roads Parking Guardrail ITS Traffic Controls Transit Shelter Transportation Buildings	Transit Operations	Roads Transit GMP Transportation Planning Support Transportation Plans

The Work Types represent major transportation activities undertaken by the Intermountain Region. It is important to note that each asset type may be addressed in some way by one or more work types. For instance, the asset type “roads” may have needs that include several or all work types: Maintenance, Component Renewal/Recapitalization, Capital Improvement/New Construction, and Planning. These work types are consistent with those employed in the Financial Analysis and with WASO guidance.

Maintenance includes the following:

- Preventive Maintenance (PM): regularly scheduled periodic maintenance activities (within a year) on selected assets; includes crack sealing and pot hole filling (non-structural surface treatments less than 1.5” in total thickness are completed on a cycle of 6 to 10 years).
- Regular and Recurring Maintenance (RM): work activities that recur based on normal wear patterns on a periodic cycle of greater than 1 year and less than 10 years.
- Deferred Maintenance (DM): maintenance that was not performed when scheduled and is delayed. Continued deferment of maintenance will result in deficiencies.
- Maintenance on transit-related structures.

Component Renewal/Recapitalization includes the planned replacement of a component or system that will reach the end of its useful life based on condition and life cycle analysis within the facility’s lifetime. This includes Light Rehabilitation (L3R) or pavement rehabilitation without grade improvement, and Heavy Rehabilitation (H3R) including grade improvements, as well as cyclical transit and other fleet recapitalization (transit vehicle purchase and replacement). Major recapitalization (4R) construction, including widening and other modification of existing assets in the existing alignment is also included in the work type.

Capital Improvement/New Construction includes major new construction projects and investments where none previously existed. Recent and planned Capital Improvement projects have included

bike paths and other missing elements of the non-motorized transportation system. It also includes new transit facilities such as transit stops, shelters, wash facilities, etc.

Transit Operations includes costs to operate the six NPS-owned and operated systems in the Intermountain Region. It does not include operational costs for vendor-operated systems in other parks, which are self-supporting and not funded directly by the National Park Service. Transit capital needs are included in the Component Renewal/Recapitalization work type.

Planning includes regional and park-level transportation plans, transportation planning support for general management plans, and environmental planning (NEPA) support.

Mapping the fund sources from the previous section to the work types noted above yields the pie chart shown in Figure 6. This chart is based on the four- year average total dollars of \$88 million. It shows Component Renewal as the biggest Work Type at \$53 million per year and 60% of the total IMR transportation dollars. Maintenance is second at \$25 million and 28% of the obligations. Transit Operations, Capital Improvements, and Planning complete the picture at a combined share of 12%.

Figure 6. IMR Work Type Average 2007-2011

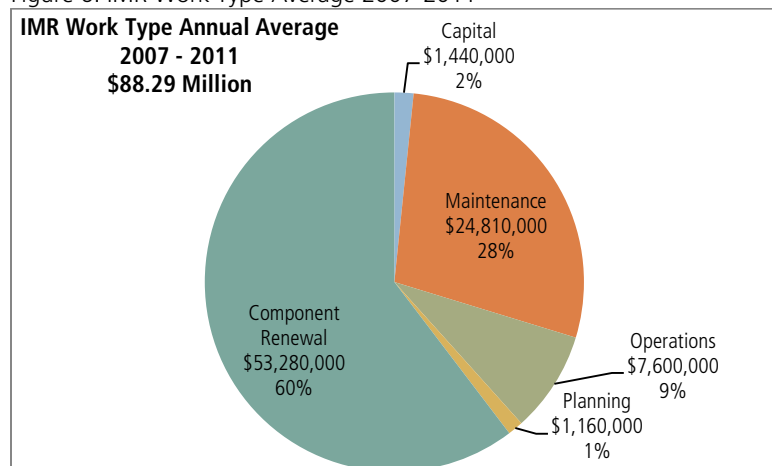
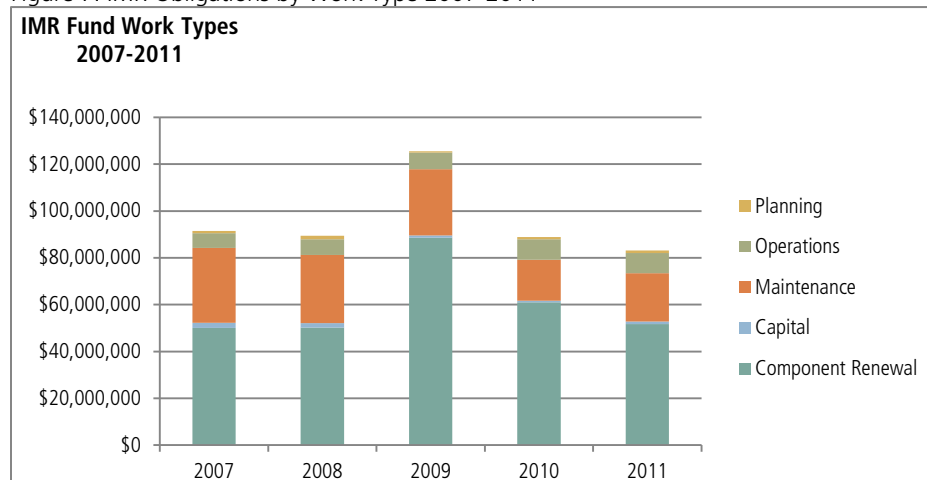


Figure 7 shows the dollar share by work type for each year in the period 2007 through 2011. This chart supports the pie chart shown above. Component Renewal, the largest work type, stayed in the range of \$50 million to \$60 million per year except for its spike in 2009 to \$89 million. Maintenance, the second largest work type, varied between \$18 million and \$32 million per year.

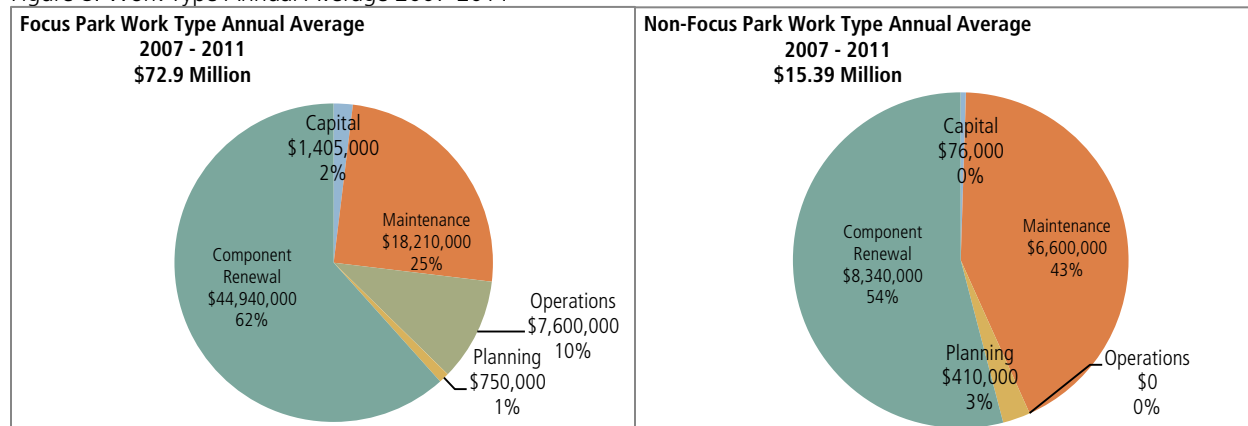
Figure 7. IMR Obligations by Work Type 2007-2011



FOCUS VS. NON FOCUS PARKS

An analysis of focus vs. non-focus parks is illustrated in Figure 8. The nominal steady-state split between the two categories 82% focus parks vs. 18% non-focus parks. The biggest contrast between the two groups is that maintenance is a substantially higher percentage of the non-focus parks' transportation expenditures compared to focus parks because of its moderately lower share for Component Renewal and Capital Improvements.

Figure 8. Work Type Annual Average 2007-2011



Focus parks account for 57% of the 3,900 roadway lane-miles in IMR although its deferred maintenance level for roadways is even higher. Thus the historic obligations for focus parks have been at a much greater percentage than their portion of assets. This is due to the higher level of activity per asset in the focus parks plus the major transit systems only found in that group. The focus parks as a group have a much larger percentage of Deferred Maintenance compared to the rest of the region.

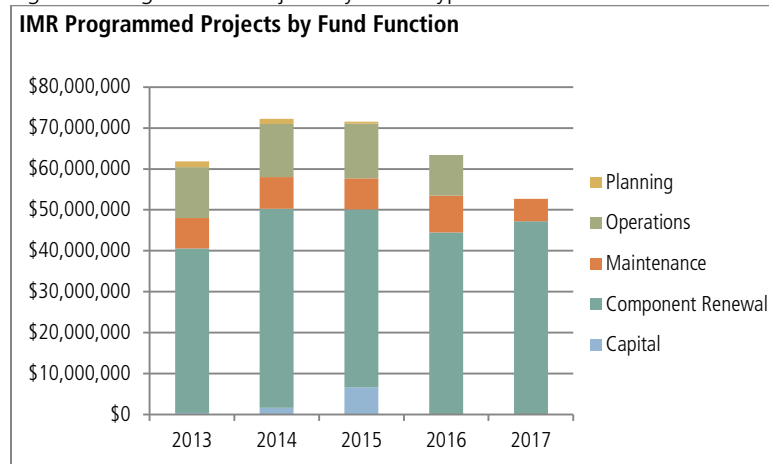
CURRENT FUNDING (2012-2017) + FUTURE FUNDING (2018-2035)

The first part of the Current + Future Funding equation includes the current or programmed funding in years 2012 through 2017. The method used for these program years was to compare the annual funding based on the historic values presented above against those programmed dollars in the years 2012-2017, then select value(s) based on that assessment.

PROGRAMMED FUNDING BY WORK TYPES (2013-2017)

Figure 9 shows the currently programmed funds assigned to the five work types for the years 2013 through 2017. The total annual dollars programmed vary between a low of \$52 million in 2017 and a high of \$72 million in 2014. The annual average is \$64 million, or 73% of the average historic average of \$88 million. This indicates that the current program definition is not fully developed and under-represents the funds likely to be available during the period. For this reason, it is recommended that the program year funds be based on the historic obligations value of \$88 million described earlier. Focus parks average about 70% of programmed funds over the five years.

Figure 9. Programmed Projects by Work Type



FUNDING FORECAST (2018-2035)

The funding in future years to 2035 was estimated starting in 2018 with three trend lines of annual change pivoting from 2017. These trends were -1.0 %, 0.0%, and +2.1 % (the NPS inflation value).

- The high value of +2.1% uses the NPS approved rate of inflation to keep the future funding at a level of purchasing power equivalent to that in 2018. It is not anticipated that NPS will secure funding that is better than keeping up with inflation based on historic trends and is likely to do worse.
- The mid-level 0.0% value represents the general historic trend of a constant level of funding in YOY dollars. This results in a reduction in purchasing power over time.
- The low value of -1.0% represents a rapidly worsening level of funding whose purchasing power is significantly diminished over time.

An ARRA-like one-year spike in funds is not assumed in the future scenario. Other innovative funding mechanisms were also not included here but will be discussed in the LRTP to address the

anticipated gap between future funding and needs. A summary of potential innovative funding strategies is shown in Appendix A.

The high and low trends shown were chosen as likely bounding the future funds available to the National Park Service. The mid-level constant YOE dollars generally reflects the trend in recent historic obligations.

One of these trend lines will be selected by NPS for application in the LRTP.

TOTAL FUNDING (2012-2035)

Figure 10 shows the estimated total funding available in each year 2012 through 2017, and every five years from 2020 through 2035. Values in intermediate years from 2020 through 2035 are interpolated on a straight line for each trend. With the low trend, the year 2035 total funding drops to \$74 million from the historic average of \$88 million, a substantial drop in purchasing power. While the high end forecast for the year 2035 value increases to \$128 million, the value of inflation, it equals the same purchasing power as \$88 million in 2017. The medium trend, constant YOE dollars, shows the same \$88 million in year 2035 as in 2017, which is an actual reduction in purchasing power compared to 2017. The future trend lines originate and pivot starting after 2017, since the period to 2017 is already programmed and relatively certain. The period after the programmed years was calculated by models and introduces an assumed degree of uncertainty. Funding through the programmed years is anticipated to be reasonably predictable.

Figure 10. IMR Forecast Fund Totals (2012-2035)

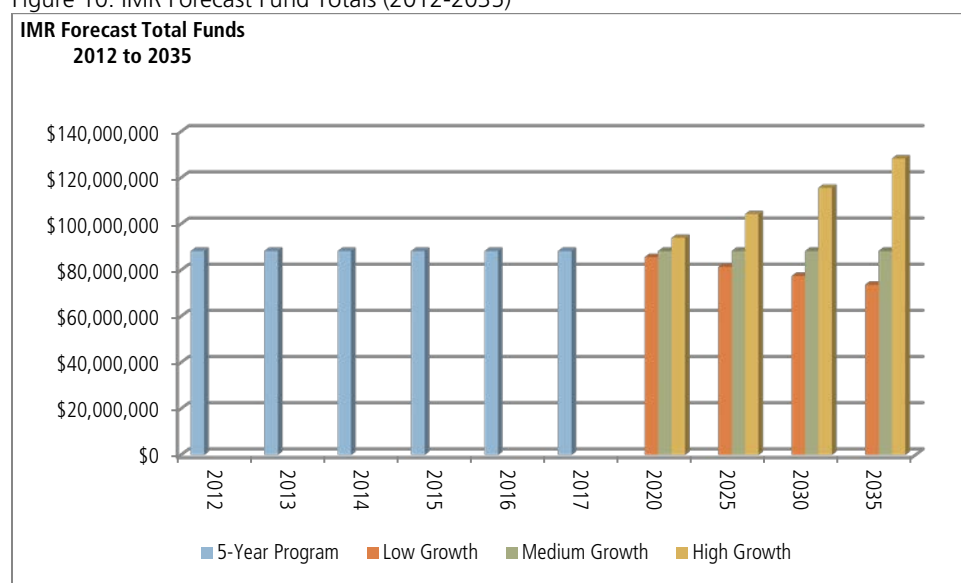


Figure 11 shows the key annual funding values split among the five Work Types. Component Renewal remains the largest Work Type followed by Capital Improvement and Maintenance under all trends.

Figure 11. IMR Forecast Summary

IMR Forecast Summary Table				
	2007-2011	2035 Forecast		
Work Type	Historic Average	Low (-1.0%)	Medium (0.0%)	High (+2.1%)
Capital	\$1,440,000	\$1,240,000	\$1,490,000	\$2,170,000
Maintenance	\$24,810,000	\$16,980,000	\$23,120,000	\$39,860,000
Operations	\$7,600,000	\$14,500,000	\$14,500,000	\$14,500,000
Planning	\$1,160,000	\$1,020,000	\$1,220,000	\$1,770,000
Renewal	\$53,280,000	\$39,950,000	\$47,970,000	\$70,030,000
Total	\$88,280,000	\$73,630,000	\$88,260,000	\$128,370,000

Figures 12 and 13 show current and future total annual dollars for focus and non-focus parks, respectively. The focus parks have a historic and programmed annual value of \$73 million while the non-focus parks have a historic and programmed annual value of \$16 million. Focus parks receive the majority of regional funding primarily because these few parks contain the majority of transportation assets and deferred maintenance. The majority of the IMR transportation budget is dedicated to meeting the needs in these twelve parks.

Figure 12. Focus Park Forecast Total Funds

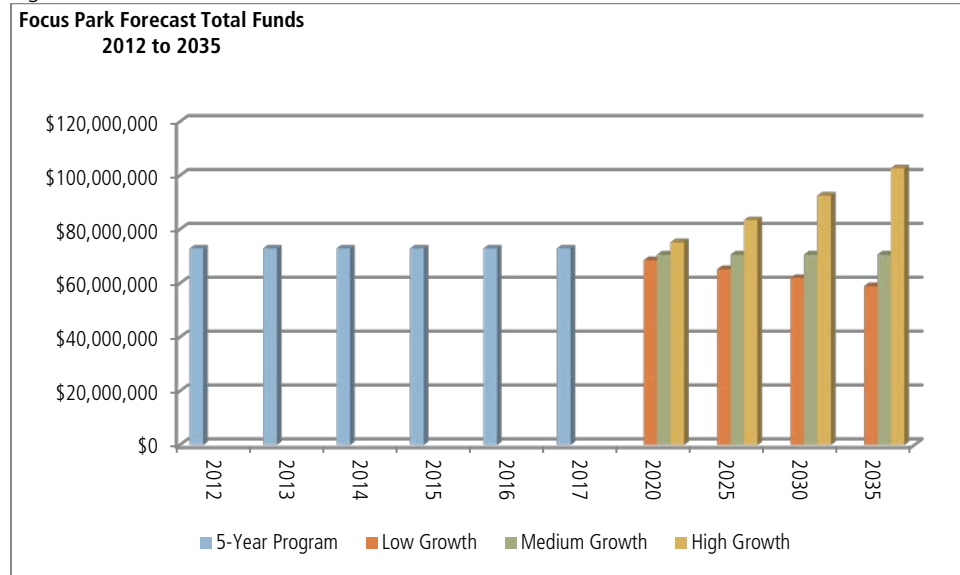
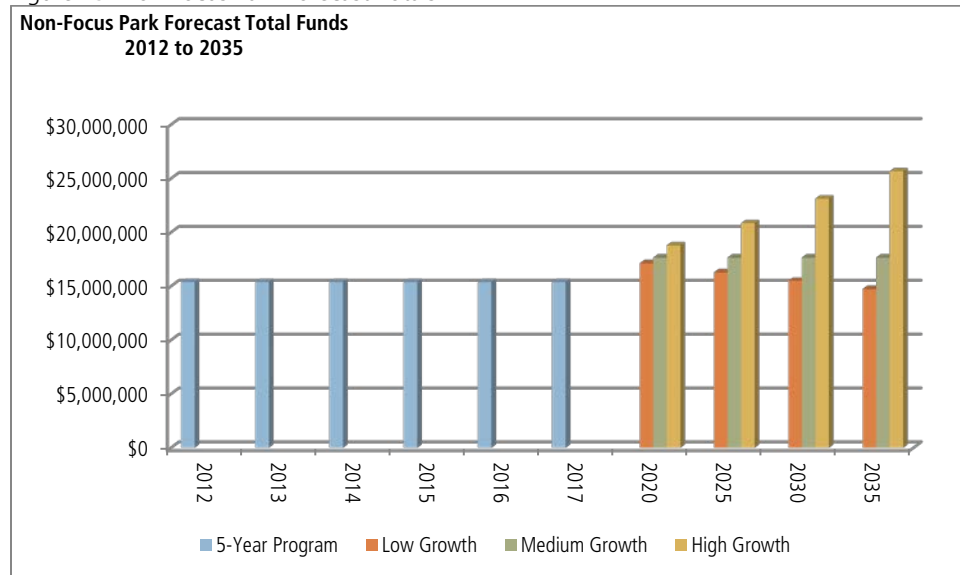


Figure 13. Non-Focus Park Forecast Totals



FORECAST FUNDING BY WORK TYPES

Figures 14 and 15 show the forecast funding for focus and non-focus parks respectively split into the five Work Types. Component Renewal and Capital Improvement funds stay evenly matched for focus parks, while Component Renewal remains the largest Work Type for non-focus parks, with Capital Improvement very small.

Figure 14. Focus Park Forecast Summary

Focus Park Forecast Summary Table				
	2007-2011	2035 Forecast		
<u>Work Type</u>	<u>Historic Average</u>	<u>Low (-1.0%)</u>	<u>Medium (0.0%)</u>	<u>High (+2.1%)</u>
Capital	\$1,405,000	\$1,170,000	\$1,400,000	\$2,040,000
Maintenance	\$18,210,000	\$10,670,000	\$15,560,000	\$28,880,000
Operations	\$7,600,000	\$14,500,000	\$14,500,000	\$14,500,000
Planning	\$750,000	\$630,000	\$750,000	\$1,090,000
Renewal	\$44,940,000	\$31,980,000	\$38,420,000	\$56,150,000
Total	\$72,905,000	\$58,950,000	\$70,630,000	\$102,660,000

Figure 15. Non-Focus Park Forecast Summary

Non-Focus Park Forecast Summary Table				
	2007-2011	2035 Forecast		
<u>Work Type</u>	<u>Historic Average</u>	<u>Low (-1.0%)</u>	<u>Medium (0.0%)</u>	<u>High (+2.1%)</u>
Capital	\$76,000	\$70,000	\$90,000	\$130,000
Maintenance	\$6,600,000	\$6,310,000	\$7,560,000	\$10,980,000
Operations	\$0	\$0	\$0	\$0
Planning	\$410,000	\$390,000	\$470,000	\$680,000
Renewal	\$8,340,000	\$7,970,000	\$9,550,000	\$13,880,000
Total	\$15,426,000	\$14,740,000	\$17,670,000	\$25,670,000

CONCLUSIONS AND RECOMMENDATIONS

This report presented a summary of the method, assumptions, and results for the financial analysis forecast for the IMR LRTP. It showed historic and currently programmed funding by work type, and future funding cases to 2035 under three trend line assumptions of -1.0%, 0.0%, and 2.1% annual growth rates. Funds were also presented divided into focus vs. non-focus parks.

It is recommended that the high future trend line of 2.1% annual future funding growth after 2017 be applied to the LRTP effort. This maintains a steady state in purchasing power at the level of 2017. The concept of a one-time ARRA-like funding spike in the future has been considered, but is not included in these forecasts. Other innovative funding mechanisms were also not included, but may be introduced in the funding gap analysis in the LRTP.

The high funding trend that keeps pace with inflation will be used to compare to needs identified in the transportation analysis so that the shortfall in outcomes can be identified under the various planning goal emphasis scenarios.

DATA AND INFORMATION GAPS

The following data and information gaps were identified during the financial analysis portion of the development of the long range transportation plan. Refined information in the following areas will assist future updates of the long range transportation plan.

Fund Source versus Work type. The financial analysis was conducted using work types where historic expenditures were group based on the type of work that was conducted using historic funds. Historically, fund sources and work types do not fully align. As a result, the fund sources (where program the money comes from) were split across the work types, rendering fund sources unrecognizable in the financial analysis. Future plans may need to determine which is more important to track, the source of the funds or how the funds were spent.

Visitor Experience (VE) and Resource Protection (RP) Data. Historic transportation projects and expenditures typically address visitor experience and resource protection as part of project proposals and selection criteria. These mission concepts are fully integrated at the planning and design level vs. the program level. However, the VE and RP elements are not individually identified in the historic expenditure details, limiting the ability to quantify the magnitude of the elements. The identification of these elements within larger projects would enable the long range plan to better assess how VE and RP goals are met.

Facilities/Activities Not Included in this Analysis. Historic trail, marina and waterway expenditures were not included in the financial analysis. However, these projects were typically funded by the same fund sources that were used to develop the financial analysis baseline. For future plans it may be prudent to at least identify these historic funds/projects even if they are not included in the financial forecasting.

Funding Data and Analysis. Tracking transportation work types in an LRTP planning context is new to NPS. Therefore, future financial analyses will likely refine the methodologies used in this pilot analysis.

APPENDIX A – NPS INNOVATIVE FINANCE UPDATE

Recap of Major Innovative Finance Mechanisms and their Relevance for National Park Service Transportation Investments

Finance Technique	Description	Pros	Cons	Examples	Implementation Issues for NPS
Grant management tools	Variety of techniques to allow flexibility in managing multi-year flow of federal-aid highway & transit capital funding, e.g. to borrow against future grant dollars for current project	Allows a wider range of projects than “pay as you go,” particularly larger projects that could not be funded in a single year. Can lower borrowing costs.	Administrative complexity; risk of committing too much future funding to current projects or debt service	GARVEE bonds, GANs, COPs, tapered match, flexible matching, advance construction, joint development	Like most federal agencies, NPS does not have statutory authority to issue its own bonds. Use of these approaches would require legislative changes. Tapered match and related strategies generally do not apply to NPS, since it does not provide a “local match” to FLH funding. One exception would be in cases where NPS partners with states, in which case FLH can serve as the local match for some federal-aid categories.
Infrastructure bank	A revolving fund that underwrites public-sector infrastructure projects and is paid back over time	Allows a wider range of projects than “pay as you go,” particularly larger projects that could not be funded in a single year. Can lower borrowing costs and facilitate private sector involvement.	Administrative complexity; risk of committing too much future funding to current projects or debt service	Pilot projects in several states; Section 129 loans	A national infrastructure bank has been the subject of proposed legislation, but does not currently exist. If one were created, NPS and other federal agencies would likely be ineligible for funding, as was specified in previous pending legislation.
Tolling / Value Pricing	Direct fees on highway users to manage demand and generate revenue	Potentially large revenue stream and ability to adjust tolls to reduce congestion and promote transit	Costs of collection; political opposition	Tolled express lanes; HOT lanes; cordon charges; variable parking charges; mileage-based user fees	NPS has limited authority for user fees such as transportation and entrance fees. Broader use of tolling would require statutory changes. There would likely be extreme political sensitivity to tolling on NPS roads. Most NPS roads also lack the heavy commuter volumes that are needed to make tolling cost-effective.

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Public-Private Partnerships	Newer forms of contracting with greater private sector participation.	Can reduce project costs and time-to-completion. May allow more flexibility and efficiencies in design and construction and tap greater expertise. Can be used to shift risks to private sector.	Requires contractual expertise and oversight; public agencies can be at a disadvantage in complex negotiations with private sector; some political opposition to "privatized" services	Design-Build-Operate-Maintain, Build-Operate-Transfer, and other contracts; concessions; long term leases; sale/ leaseback	NPS already uses the PPP vehicles that are authorized and most relevant to its mission, namely concession agreements, partnerships, and design-build contracting. More exotic PPPs such as leaseback would require statutory changes to allow private entities to own and/or maintain NPS assets. These arrangements are likely not consistent with agency mission and policies.
Value Capture / Tax Increment Financing	Special tax assessment on the additional property value created by new transportation facilities (e.g. new transit station).	Allows transit expansions and other projects to proceed when direct funding is limited. Ensures that direct beneficiaries of project (i.e. adjacent landowners) contribute to the cost.	Can be administratively complex; some jurisdictions do not permit property taxes to be assessed in this way. Generally only relevant to new facilities or expansions.	Potomac Yard WMATA station funded in part by special tax district	NPS does not have authority to levy property taxes. Use of this method could only take place in conjunction with a state or local partner.