

# **PARTNER FEEDBACK REPORT 2019**



**U.S. Department of Transportation  
Federal Highway Administration  
Eastern Federal Lands Highway Division**

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## Introduction

The Federal Highway Administration (FHWA), Eastern Federal Lands Highway Division (EFLHD), is committed to serving the needs of our Partners and we have been engaged in an ongoing evaluation and improvement process since 1993. As part of that process, we have collected survey information from our Partner Agencies and used their responses to improve our products and services. This Report has been developed to provide a summary of the feedback we received in relation to our program and project delivery, including identification of proposed improvement actions, and to report on some of our significant accomplishments.

In Fiscal Year (FY) 2019, Survey Review & Enhancement efforts began on all customers surveys to identify areas of improvement. Phase I was completed, which included the initial meeting with leadership, followed by meeting with focus groups for each survey. The purpose of the focus groups was to assess information needs for decision-making relative to the information provided in the survey results, in or to optimize survey response rates and information utility. In FY 2020, Phase II will be completed, which will include meetings with groups for each survey to derive final recommendations for enhancement.

In FY 2019, we distributed the following web-based surveys:

- Environmental Collaboration
- Completed Projects (Construction Process)
- Roadway Inventory Program
- Project Development (Design Process)

The results from those surveys have been reviewed and actions have been implemented to correct and/or improve upon our FY 2019 scores. We appreciate our many Partners; and value the feedback you provide. The adjustments and adaptations we implement are our efforts to better meet your needs in the delivery of your program of projects.

In FY 2019, we awarded 40 projects at over \$93 million in construction contracts from which survey solicitations were requested. We received comments from the following Agencies:

- National Park Service
- State Departments of Transportation
- U.S. Fish and Wildlife Service
- US Army Corps of Engineers
- U.S. Forest Service
- Other Agencies

Comments are evaluated in consideration of the Program activity addressed and the partner representative from whom they were received. Our Staff often contacts the representatives to clarify individual comments.

We continue to reach out to our partner agencies through site visits, feedback sessions, program status updates and teleconferences for the continual improvement of our program and project delivery services. In FY 2019, we had partner satisfaction scores at or above target for Completed Projects, Road Inventory Program, and Project Development, while Environmental Collaboration values ended below target this year. The overall satisfaction score for combining all surveys for FY 2019 comes in at 85%, putting the overall score right at our target of  $\geq 85\%$ .

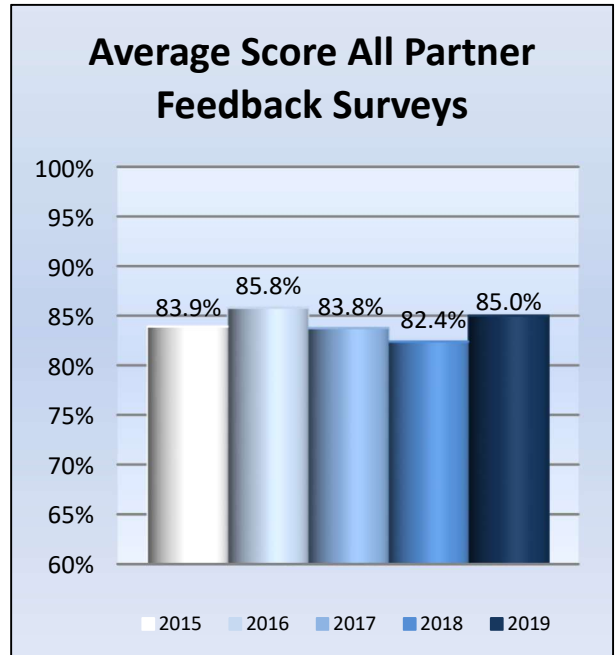
We would like to take this opportunity to extend our thanks for your participation and support of our efforts toward continued improvement. Your feedback is vital in the successful delivery of the Federal Lands Highway Program (FLHP) and is greatly appreciated. If you have any questions, or additional comments, please contact Ms. Aide Romero, Division Program Management Analyst and System Manager, at 703-404-6235 or by email [Aide.Romero@dot.gov](mailto:Aide.Romero@dot.gov).

## Survey Approach

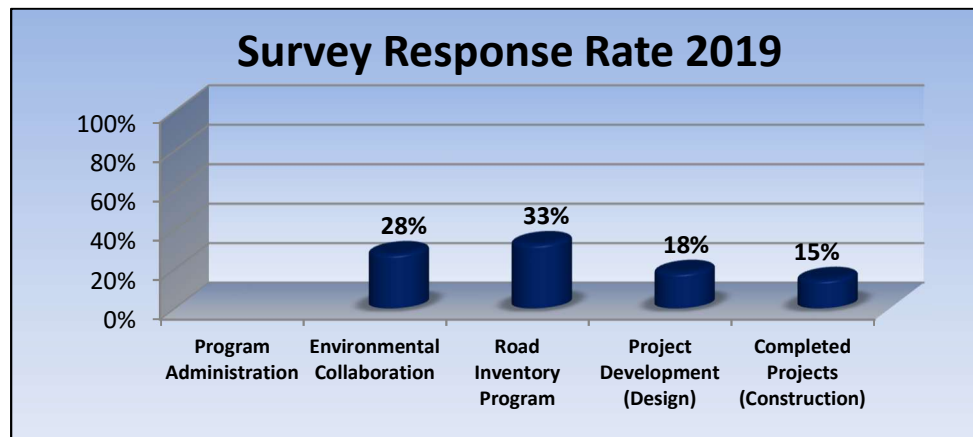
We measure the satisfaction of our Partner Agencies at the major milestones of the program and project delivery processes. The surveys are sent throughout the calendar year at the completion of the environmental assessment, project design and construction phase, to gauge overall administrative support. Survey respondents include representatives of our Partners and other Agencies directly involved with delivery of the Program.

Survey scores have fluctuated slightly over the last several years. EFLHD's value of 85% in 2019 continued this trend. We are at our goal of  $\geq 85\%$ . The overall value has remained statistically the same for several years now. Each of the four components that comprise this overall score is addressed in detail on subsequent pages of this report.

The average value for all partner surveys is composed of the Environmental Collaboration Survey at 76.1% with a response rate of 28%; the Road Inventory Program Survey at 90.3% with a response rate of 33%; the Project Development (Design) survey at 86% with a response rate of 18%; and the final component is the Completed Projects (Construction) Survey at 87.7% and with a response rate at 15%.

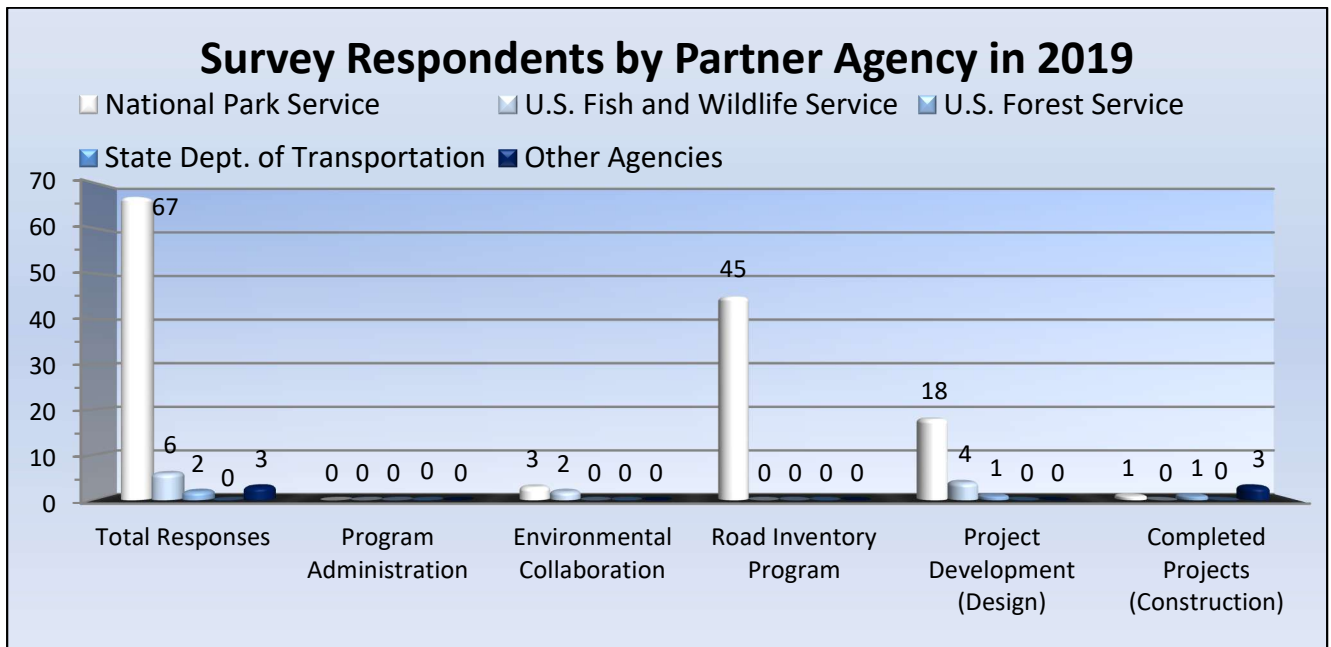
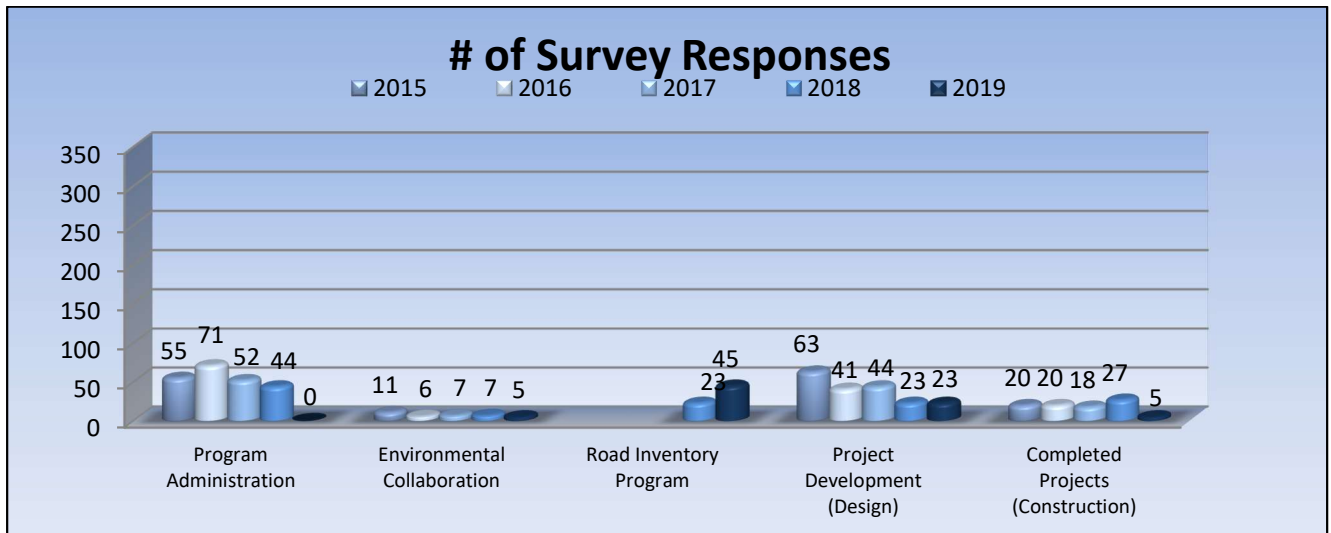
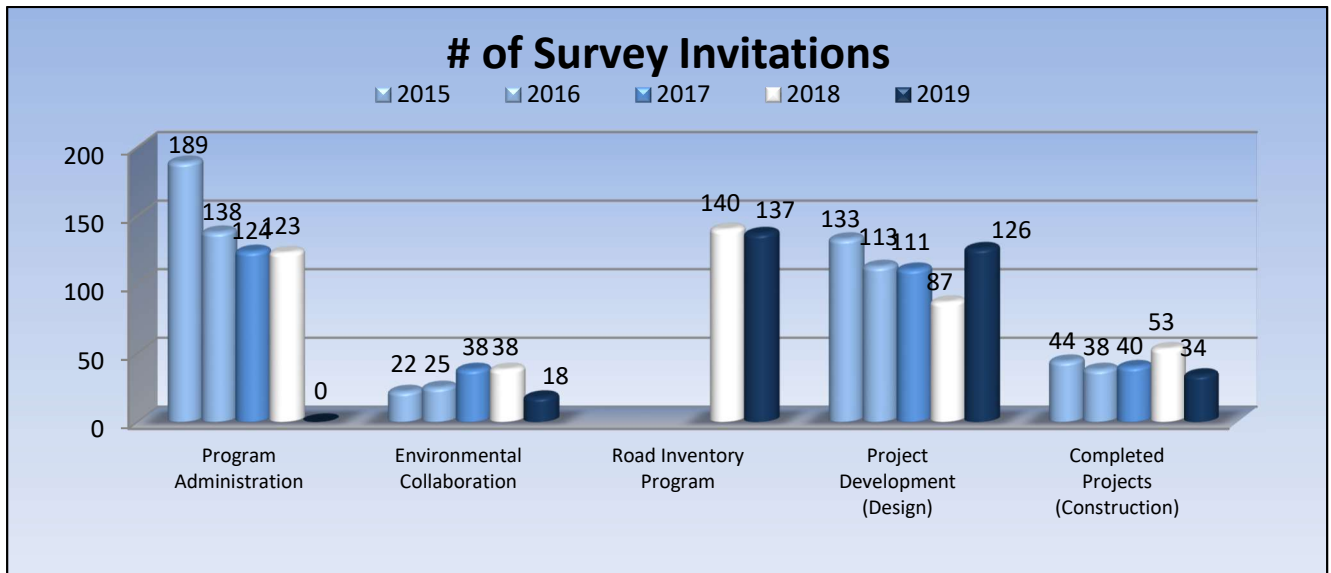


Our target value aligns with the Federal Lands Highway and FHWA goals which strive for an 85% or greater for all external Partner Satisfaction surveys.



The combined rate of return for all four survey areas in FY 2019 was only at 24.8%; this was lower than the prior year value of 28%. Solicitation efforts remained high with 315 invitations for feedback distributed but only 78 were returned. At a population size nearing 300 we need to get an

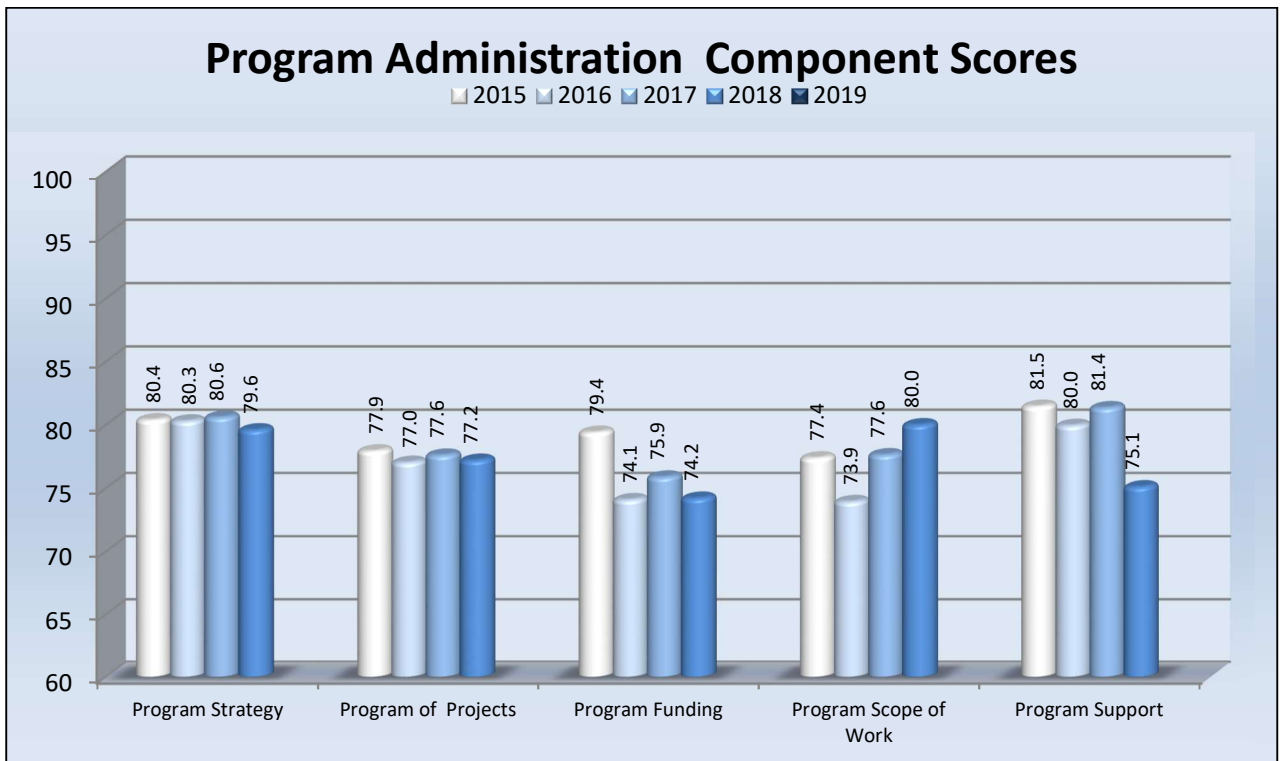
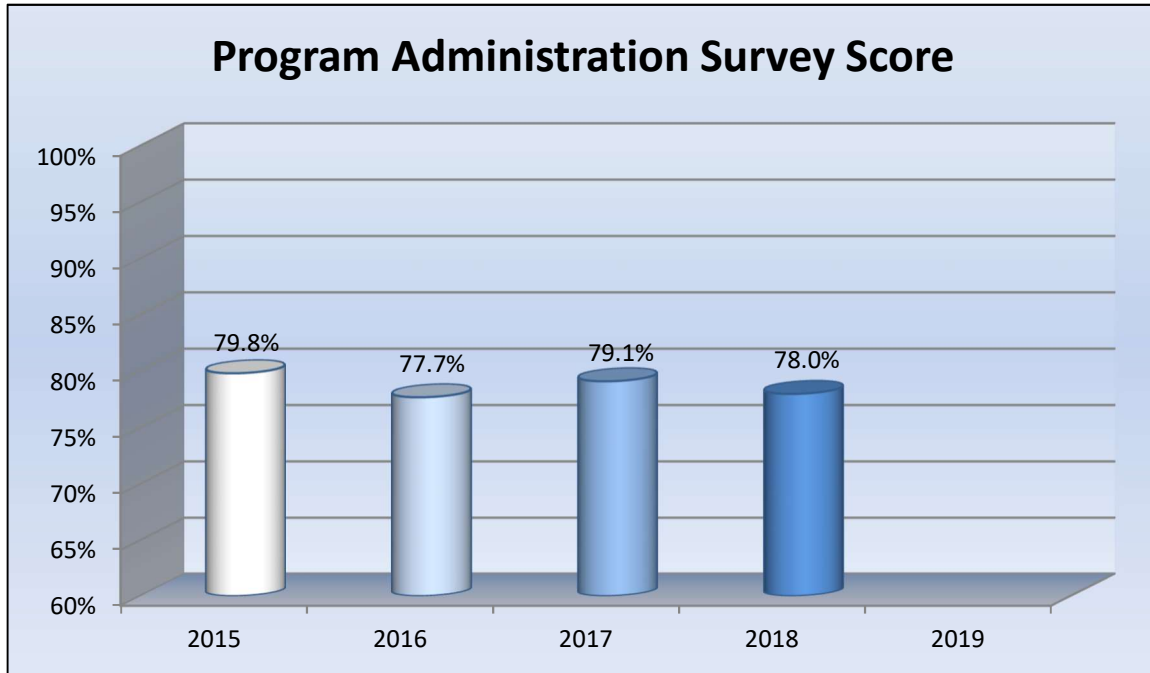
additional 75 responses for our percentage returned to be statistically desirable and have a confidence level of 95%, so efforts to improve will be continuing. In 2020 branch office personnel will be contacting respondents to improve response rate over 2019 values. We continue to ask for your valued input to this improvement effort at EFLHD and welcome feedback that can assist us in increasing our customer satisfaction.



## Program Administration Survey

The purpose of the Program Administration Survey is to determine whether the program needs of Federal Lands Highway (FLH) partner agencies are being met by FLH's administrative practices.

EFLHD Overall Satisfaction Index Target  $\geq 85\%$



**Survey Results:** Survey scores for the Program Administration Survey were not collected in 2019. Below is an analysis of the survey's results from previous years:

Category	2014	2015	2016	2017	2018
Program Strategy	79.1	80.4	80.3	80.6	79.6
Program of Projects	76.5	77.9	77.0	77.6	77.2
Program Funding	74.5	79.4	74.1	75.9	74.2
Program Scope of Work	78.3	77.4	73.9	77.6	80.0
Program Support	79.8	81.5	79.9	81.3	75.1
<b>Overall Score</b>	<b>78.0</b>	<b>79.8</b>	<b>77.7</b>	<b>79.1</b>	<b>78.0</b>

In previous years, our response rate varied but was generally between 30% and 40%. In addition to the low overall response rate, some programs were only represented by one or two responses. The Division has initiated a Survey Review & Enhancement effort of all our customer surveys in order to formulate recommendations for enhancement. Since the preliminary review of this survey recommended significant changes, we decided not to send it out until we have completed the revisions.

**Action to Improve:** Even though we did not received feedback through the survey process, we have received feedback through other forums. We have initiated the following actions to improve and maintain partner satisfaction this year:

- We are working collaboratively with the other Divisions and FLH HQ to define consistent processes for the administration of the Federal Lands Transportation Program.
- We are working to implement additional financial internal controls to monitor project expenditures and better defining communication protocols for the Programs Team and the Project Delivery Team (for Federal Lands delivered projects)

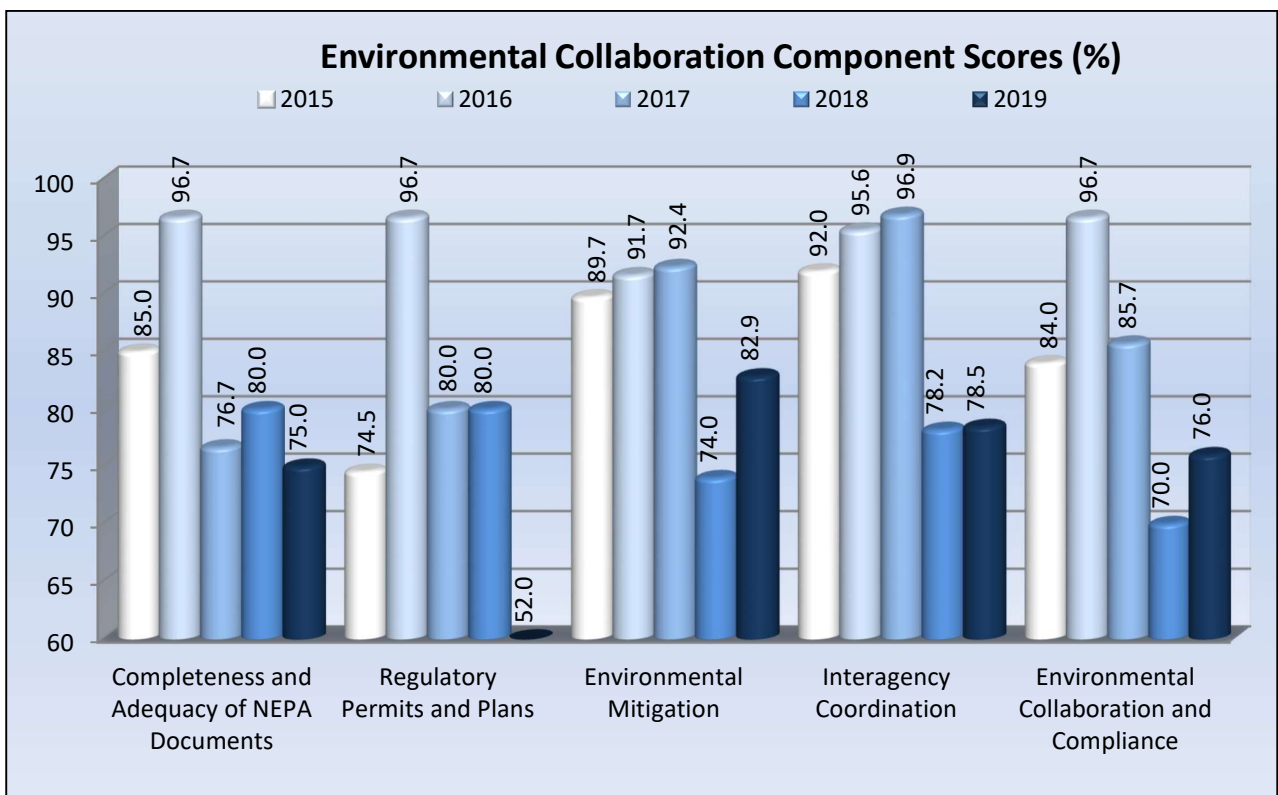
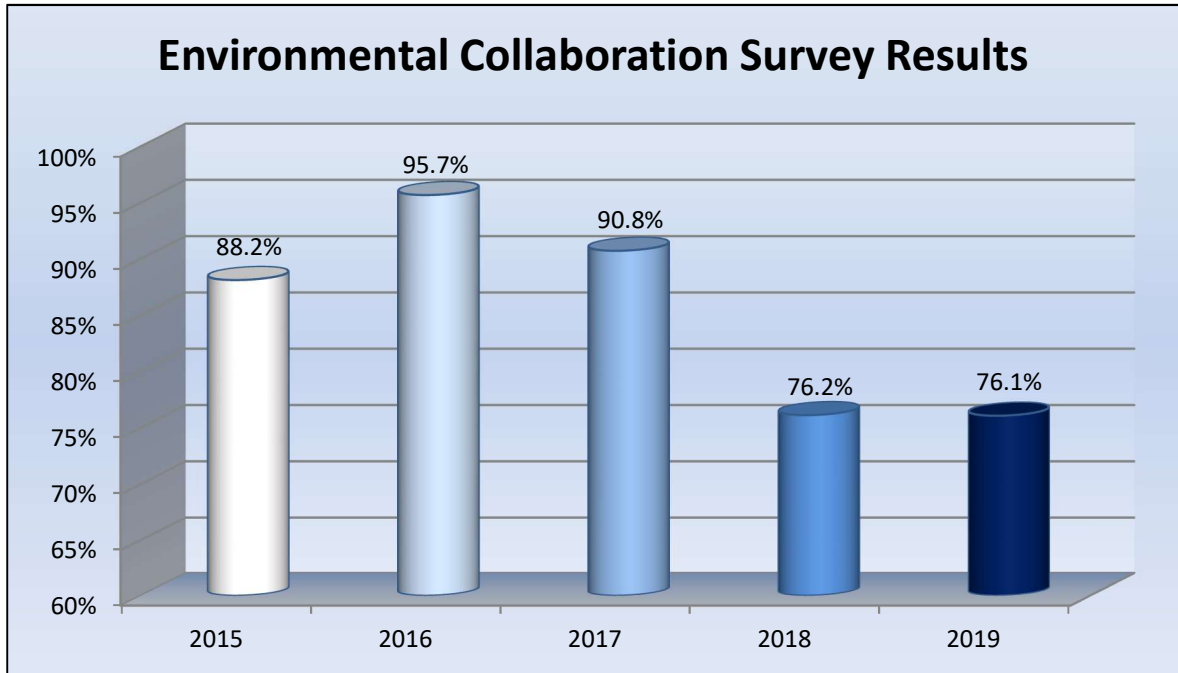
**Actions Taken:** We implemented the following actions for program administration improvement last year:

- We have re-aligned some of the Program teams to provide better specialization in each Program. It took some time to hire new staff and shift responsibilities, but the new teams are fully re-aligned and staffed. We anticipate that this will allow more time to focus on program goals and the overall partnership.
- For the FLAP program, we were considering a pilot program that would reduce the Stewardship and Oversight (S&O) requirements to reduce some of the administrative burden of the Program. However, the Agency implemented a strategy to shift the S&O responsibilities for State and Local delivered projects to the Federal-aid Offices. This will streamline the S&O activities for those projects because the State DOT will be following the same process as a Federal-aid Project.
- For the FLTP program, we will engage with our partner agencies through the Federal Lands Planning Program Council to better align the use of planning funds with the programming needs. There have been several Planning Program Council meetings this year and we have had great conversation and information exchange.

## Environmental Collaboration Survey

The purpose of the Environmental Collaboration Survey is to evaluate the degree to which our work supports and is consistent with partner and resource agencies' environmental practices.

EFLHD Overall Satisfaction Index Target  $\geq 85\%$



**Survey Results:** The 2019 survey resulted in a reduction from last year's value. We recognize that of the 18 surveys we sent out, we only received 5 back. The survey categories of Environment Mitigation, Interagency Coordination and Environmental Collaboration and Compliance all experienced increases from the preceding year. The survey categories of Regulatory Permits and Plans and NEPA Documents were identified as categories requiring attention in the upcoming year. An analysis of the survey's results by category area yielded the following:

Category	2015	2016	2017	2018	2019	% Change
NEPA Documents	85.0	96.7	76.7	80.0	75.0	-5.0
Regulatory Permits and Plans	74.6	96.7	80.0	80.0	52.0	-28.0
Environmental Mitigation	89.7	91.7	92.4	74.0	82.7	8.86
Interagency Coordination	92.0	95.6	96.9	78.2	78.5	0.26
Environmental Collaboration and Compliance	84.0	96.7	85.7	70.0	76.0	6.0
<b>Overall Score</b>	<b>88.2</b>	<b>95.0</b>	<b>90.8</b>	<b>76.2</b>	<b>76.1</b>	<b>-0.10</b>

Questions resulting in the lowest scores for this survey period were:

- Completeness and Timeliness of Regulatory/Permits and Plans. 52.0%
- Interagency Coordination: Timeliness for completion of environmental documents. 73.3%
- Completeness and Adequacy of NEPA Documents. 75.0%

Question with the highest scores for the current survey period were:

- Environmental Mitigation: Fulfilment of mitigation commitments. 86.7%
- Environmental Mitigation: Monitoring / plans for mitigation commitments. 86.7%
- Effectiveness of coordination and consultation with your agency. 80.0%

Our response rate for this year was 28% and is up from last year's value of 18%. A recent Survey Review & Enhancement effort was initiated to formulate recommendations for survey enhancement. The recommendation from this effort was to eliminate the standalone Environmental Collaboration Survey and include relevant items from the survey into the Project Development and Completed Project surveys. Environment anticipates this as a positive step as we look towards the 2020 survey cycle. The reason for this optimism is twofold. The first is that it should improve response rate by having a single combined survey as opposed to the multiple surveys our partners were receiving. The second is to clarify what partners are being asked to assess. Again, this year, comments were received from this survey that may have been more relevant to a different program delivery process and not strictly the environmental compliance component. By having a single survey, the partners will be able to evaluate all aspects of project delivery at one time. A sampling of the relevant written comments associated with this survey were:

- "In the past several months we've learned that a critical piece of WSSC infrastructure was not adequately captured in the design of the Still Creek bridge. It seems that compliance may have also overlooked the need to coordinate potential impacts with WSSC. Closer coordination with the design team and those working compliance is required. There is room for improvement on the coordination of information sharing, schedules, documents, etc." The Washington Suburban Sanitary Commission (WSSC) is a utility and the specific issue was an unidentified sewage pipe.
- "The sub-contractor that was hired to complete the required permits took quite a bit longer than anticipated to complete the work."
- Very thorough documentation and adherence to NEPA policy and procedure.

**Action to Improve:** We will initiate the following actions to improve and maintain partner satisfaction this year:

- Make sure that we manage the expectations of our partner on what is reasonable for permitting timeframes. Add a discussion point to be highlighted at the scoping meeting and subsequent discussion on satisfying permit requirements.
- Add a discussion point at EFLHD's internal project kick-off meetings to reinforce that all branches need to coordinate with outside organization and that early outreach and coordination is prudent to the successful delivery of the program.

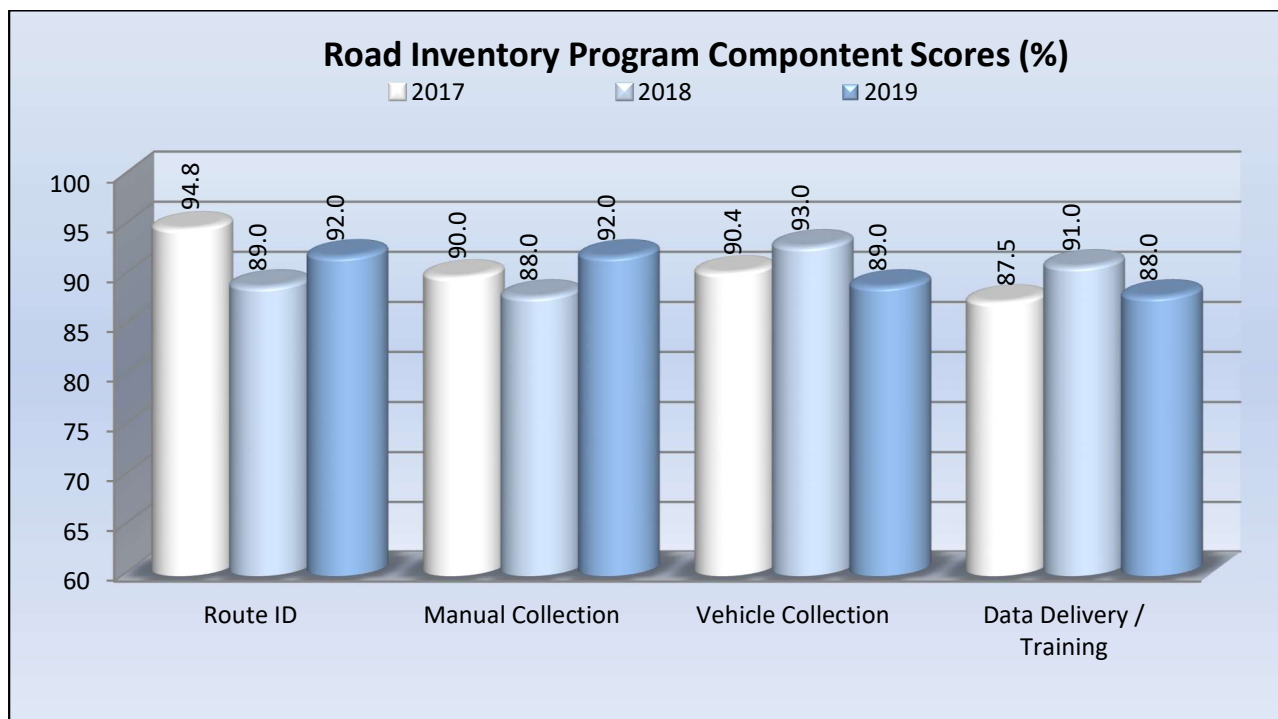
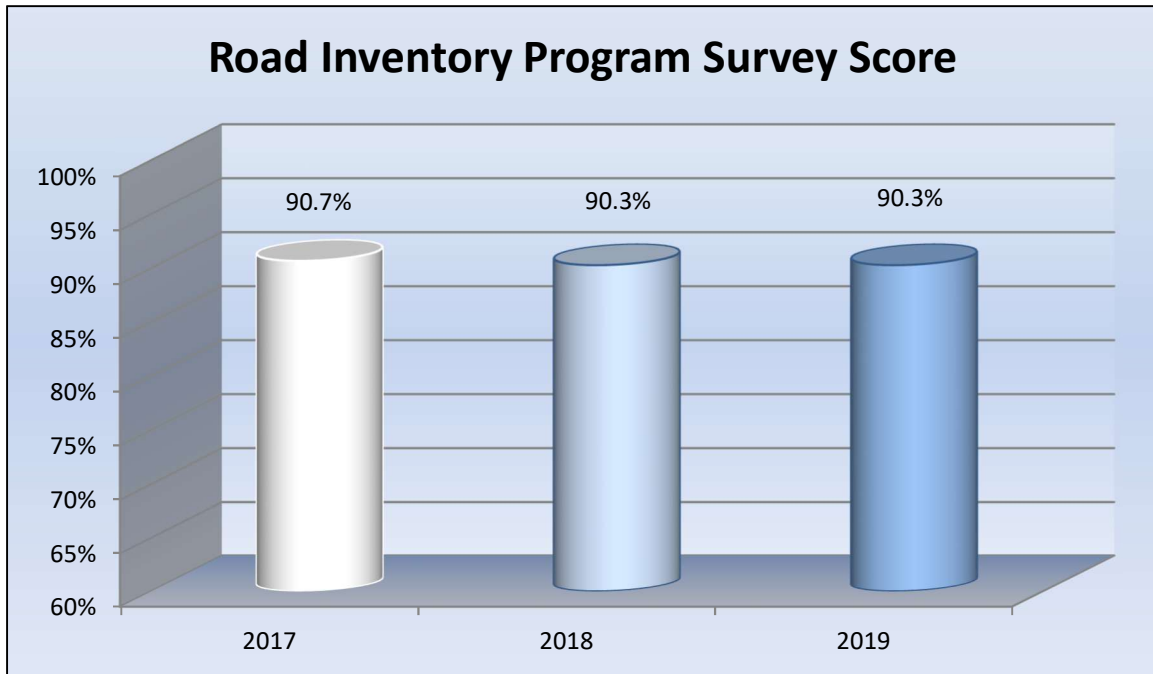
**Actions Taken:** We implemented the following actions last year:

- Included a discussion point regarding necessary environmental coordination and collaboration with partners throughout the life of the project at EFLHD's internal project kick-off meetings.
- Evaluated and validated that the Permit Tracking Form is providing the appropriate information to construction to quickly resolve compliance issues encountered during onsite work. GREE 11(1) and the Wisconsin ERFO projects are just a couple of examples of where construction was easily able to use the form to resolve issues by identifying the appropriate permit being impacted, identifying the correct Environment Compliance Specialist to contact and resolving concerns to facilitate the timely delivery of the project.

## Road Inventory Program Survey

The purpose of the Road Inventory Program Survey is to evaluate the degree to which our work provides the information necessary to support our partner's asset management and program development processes.

EFLHD Overall Satisfaction Index Target  $\geq 85\%$



**Survey Results:** This is the third year that the Road Inventory Program Survey is included in the Partner Feedback report. The Overall Satisfaction scores for the Road Inventory Program Survey remained consistent with last year's score at 90.3%. The current score continues to meet our target level of 85. An analysis of the survey's results by category yielded the following:

Category	2017	2018	2019	% Change
Route ID	94.8	89.0	92.0	3.0
Manual Collection	90.0	88.0	92.0	4.0
Vehicle Collection	90.4	93.0	89.0	-4.0
Data Delivery / Training	87.5	91.0	88.0	-3.0
<b>Overall Score</b>	<b>90.7</b>	<b>90.3</b>	<b>90.3</b>	<b>0.0</b>

Questions resulting in the lowest scores for this survey period were:

- Vehicle Collection: Were you satisfied with FHWA's explanation of when and how you will receive the data collected from the Data Collection Vehicle visit? 84%
- Vehicle Collection: Were you satisfied with the Data Collection Vehicle's visit overall? 88%

Question with the highest scores for the current survey period were:

- Data Delivery / Training: Was there prompt follow up to questions and information requests? 100%
- Data Delivery / Training: What was your overall satisfaction with the RIP data? 100%
- Route ID Meeting: Was the meeting conducted in a professional manner? 96%

A low response rate continues to be the biggest challenge with these surveys. The Division has initiated an effort to review the survey questions and process. We do not yet have recommendations specific to this survey, but we hope to reduce user effort and increase response rate and value. Here is a sampling of the comments received:

- The team was very easy to work with and cooperated with us multiple times over scheduling conflicts. Great experience.
- The only issue I ran into was the use of Adobe and Flash for the webinar portion pre- visit. The staff was excellent at accommodating our remote location and IT limitations.
- Providing data in advance to highlight road identification discrepancies so that we may match them or research them prior to the meeting would be beneficial.

**Action to Improve:** We have initiated the following actions to improve and maintain partner satisfaction this year:

- We are exploring opportunities to streamline the initial Route ID meeting such as providing data in advance to identify discrepancies and using new IT tools that may make it easier to share data during the meeting.
- We will explore opportunities to reduce the number of data delivery / training meetings. This will reduce the time commitment for EFL and FLMA HQ / Regional staff and it will encourage collaboration between sites.
- We will continue to share best practices across all the Agencies that we work with to ensure that we are delivering the data needed in the most efficient way.

**Actions Taken:** We implemented the following actions for improvement last year:

- We implemented continuous process improvement for manual data collection as we gained experience with additional partners and software platforms. We have begun to document the

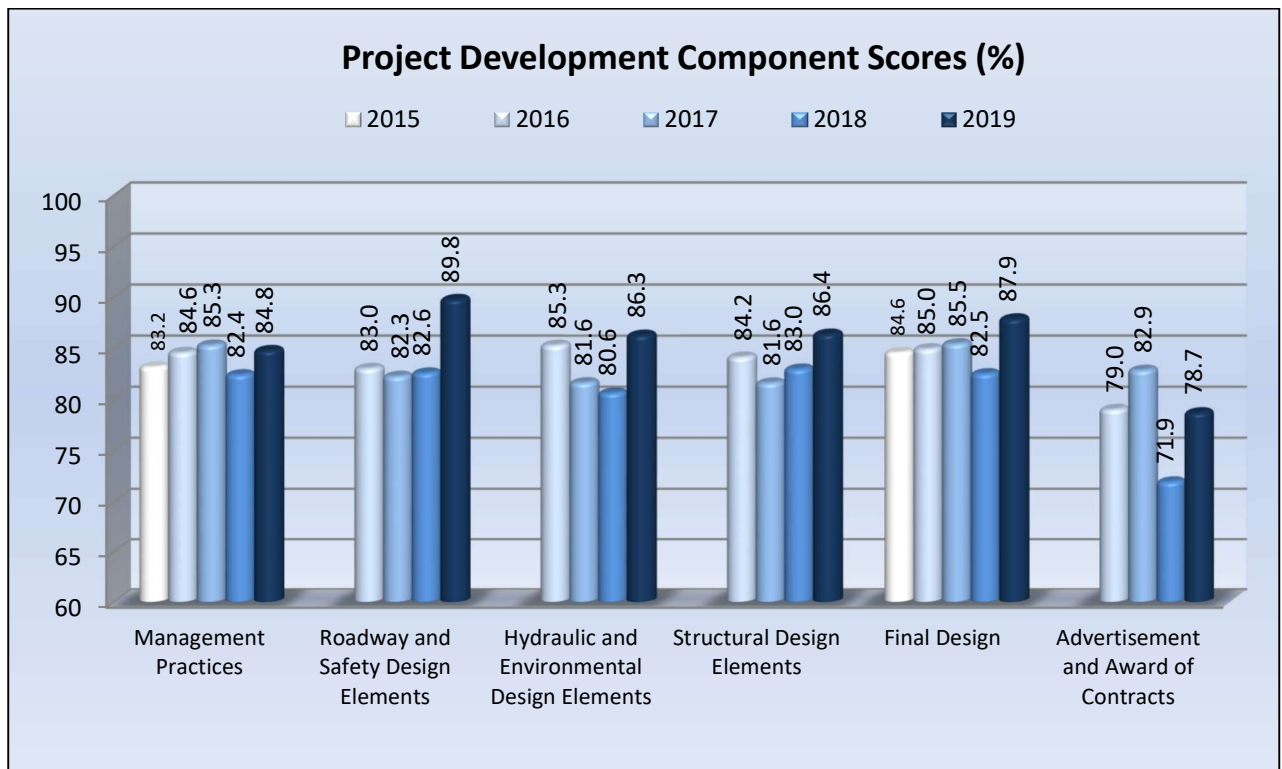
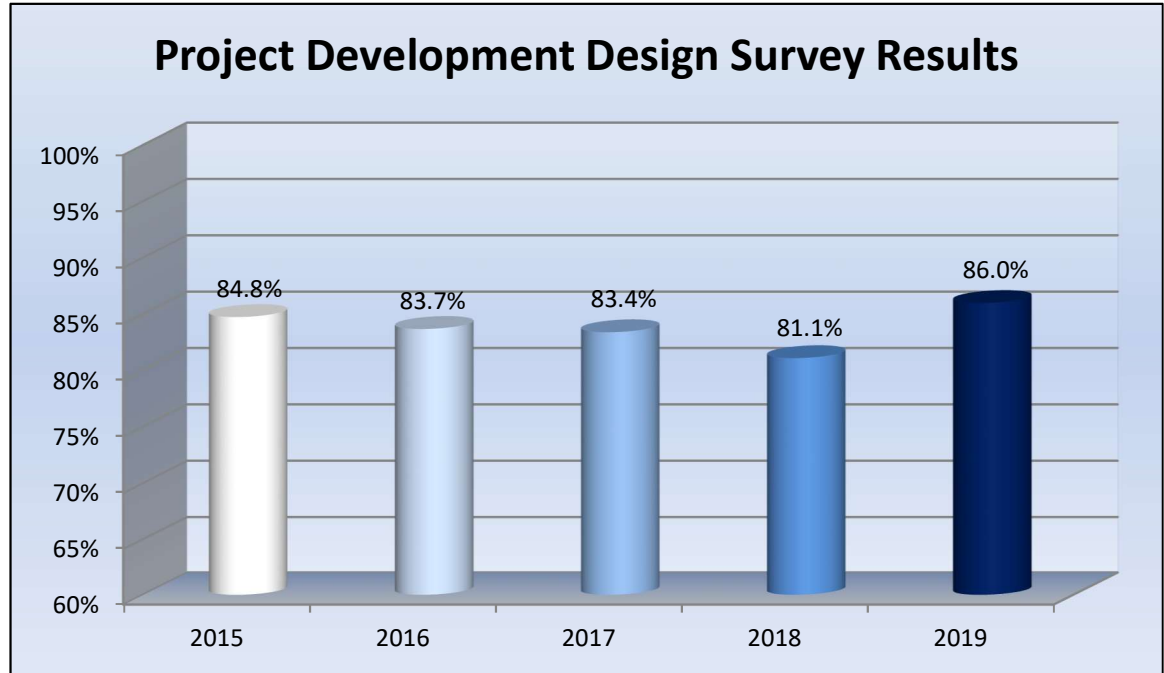
different processes to identify the pros and cons so we can start streamlining our efforts.

- We provided PathView information and RIP training to NPS users throughout the year to ensure a smooth roll out of the new Pathweb system (online version of PathView).

## Project Development (Design) Survey

The purpose of the Project Development Survey is to assess the quality of all project design elements and FLH management practices that lead to final design.

EFLHD Overall Satisfaction Index Target  $\geq 85\%$



**Survey Results:** The overall Project Development Survey score for FY19 is 86%. The target of 85% or higher was achieved for this year. An analysis of the survey's results by the category area yielded the following results:

Category	2015	2016	2017	2018	2019	% Change
Project Management Practices	83.2	84.6	85.3	82.4	84.8	2.4
Project Development Elements	85.2	---	---	---	---	---
Roadway and Safety Design Elements	---	83.0	82.3	82.6	89.8	7.2
Hydraulic and Environmental Design Elements	---	85.3	81.6	80.6	86.3	5.7
Technical Design Elements	85.8	---	---	---	---	---
Structural Design Elements	---	84.2	81.6	83.0	86.4	3.4
Final Design	84.6	85.0	85.5	82.5	87.9	5.4
Advertisement and Award of Contracts	---	79.0	82.9	71.9	78.7	6.8
<b>Overall Score</b>	<b>84.8</b>	<b>83.7</b>	<b>83.4</b>	<b>81.1</b>	<b>86.0</b>	<b>4.9</b>

Questions resulting in the lowest scores for this survey period were:

- Advertisement and Award of Contract: 75.7%  
Acquisition method selected (type of contract).
- Hydraulic and Environmental Design Elements: 76.0%  
Temporary erosion and sediment control.
- Advertisement and Award of Contract: 77.5%  
Overall acquisition process and results.
- Advertisement and Award of Contract: 78.8%  
Selection of contractor.

Question with the highest scores for the current survey period were:

- Roadway and Safety Design Elements: 95.8%  
Earthwork, grading, cut and fill slope design (landslides).
- Roadway and Safety Design Elements: 95.4%  
Roadway geometrics (alignment, curves, and superelevation).
- Roadway and Safety Design Elements: 94.2%  
Intersection design (traffic control, sight distances and lighting).
- Roadway and Safety Design Elements: 93.1%  
Typical Sections (lane/shoulder widths).

Our satisfaction score increased above the target value this past year, although we had a very low 18.3% response rate. Discipline areas that showed improvement from last year include Roadway and Safety Design Elements, Final Design, Structural Design Elements, and Hydraulic and Environmental Design Elements. The areas needing more attention are Project Management Practices and the Advertisement and Award of Contracts, although both of these project development areas did increase in score from last year.

**Actions to Improve:** We will implement the following in FY 2020:

- Advertisement and Award of Contracts – We understand the concerns our partners have expressed regarding the timeliness of the acquisition and award process, and lack of confidence in the selected contractors. After discussion with partner representatives, The Division is preparing to solicit and

award 5 regional Indefinite Delivery, Indefinite Quantity Contracts (IDIQCs / MATOCs) providing highway and/or bridge construction services with incidental design services for the smaller (generally less than \$2M) and less complex projects that we are delivering. There are several benefits in this approach, including being able to “pre-qualify” contractors and build a long-term working relationship intended to improve quality with smoother implementation. As this contracting mechanism is more frequently used, there is opportunity to reduce our design effort on some types of projects and reduce our acquisition costs and timelines. Currently, 4 of the 5 regional IDIQ contracts are in the solicitation stage. In addition, we anticipate that these contracts will enable us to respond more quickly to emergency projects. In addition to utilizing IDIQCs, EFLHD is evaluating the need for Best Value procurement on more complex projects using either a Lowest Price Technically Acceptable or Tradeoff Approach to evaluate both price and performance on some construction contracts based on risks. Technical selection criteria in a Request for Proposal (RFP) may include selection factors such as prior experience, past performance, proposed team, planned approach to construction, project understanding, and project controls. Procurement approach will be a topic to discuss during the scoping meeting and the intermediate design stage.

- **Project Management** – Providing clear and timely communication with our partners is discussed frequently with the PMs. The communication begins prior to scoping in confirming that key partner stakeholders are present during the scoping requirements discussions, and all parties come away from the meeting with a clear understanding of project requirements including likely risk event responses, environmental compliance, and construction contract procurement. The PMs are to communicate with the partner and other maintaining entities on schedule and budget impacts of any scope changes. This process will include, determining cost and schedule impacts of scope changes, providing to the partner to review, and finalizing agreed to changes in the Design Scoping Report Update or Project Agreement before proceeding with design changes.
- **Hydraulic and Environmental Design Elements** – For ERFO replacement facilities may be built to the engineering design standards in 23 CFR 625, FLH Project Development and Design Manual or Applicant design standards. Cost for upsizing culvers or making other modifications to accommodate aquatic organism passages are eligible when required. If the culvers is damaged beyond repair, the costs for upsizing culvers or making other modifications to accommodate aquatic organism passages are eligible when required for environmental compliance or by law. Cost of major improvements (e.g. replacing a culvert with a bridge) require approval by the Division Director to be eligible for ER funding.

**Actions Taken:** We implemented the following actions last year:

- **Contract Procurement Type & Contractor Selection** – We are working to procure 5 regional IDIQCs for delivering smaller less complex projects with pre-qualified contractors to streamline procurement on these projects. In addition, we are continuing to evaluate the need for Best Value procurement on more complex projects.
- **Project Communication** – Project Managers discuss with partners and confirm key personnel are present during the scoping requirements discussions and come away from the meeting with a clear understanding of project requirements.
- **Schedules and Budget** – We have been emphasizing to the PMs and design staff to work together to develop project schedules and budgets to improve accuracy and consistency, including conducting several internal staff trainings on design activity logic, resourcing, and updating schedules. In addition, EFL leadership has increased the awareness to the Project Managers and design staff to finalizing project baseline schedules, budgets, final scoping report, and project agreements soon after the scoping meeting. The PMs will communicate with the partner and other maintaining entities in a timely manner on any scope changes resulting in schedule and budget impacts.
- **Final Design** – We continue to emphasize that all comments from previous reviews are appropriately addressed and the latest versions of the documents are included, prior to distribution. The design

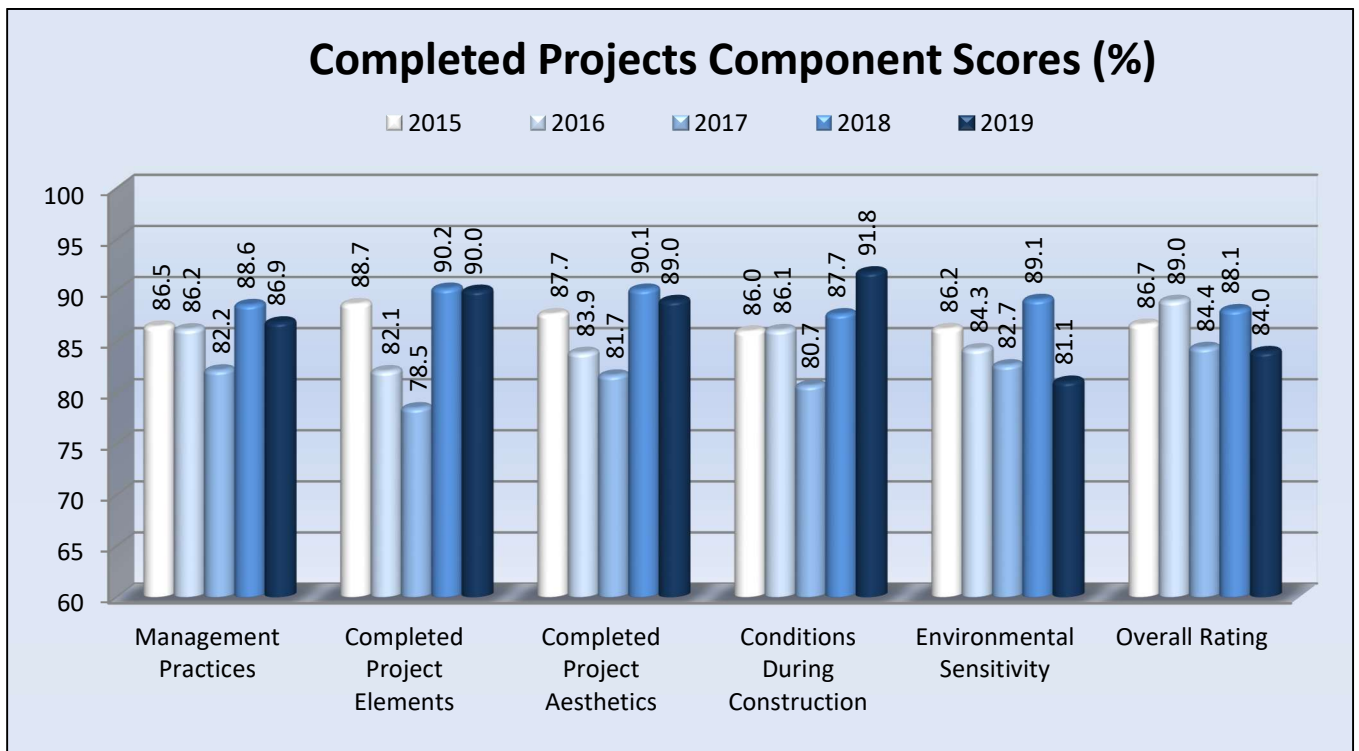
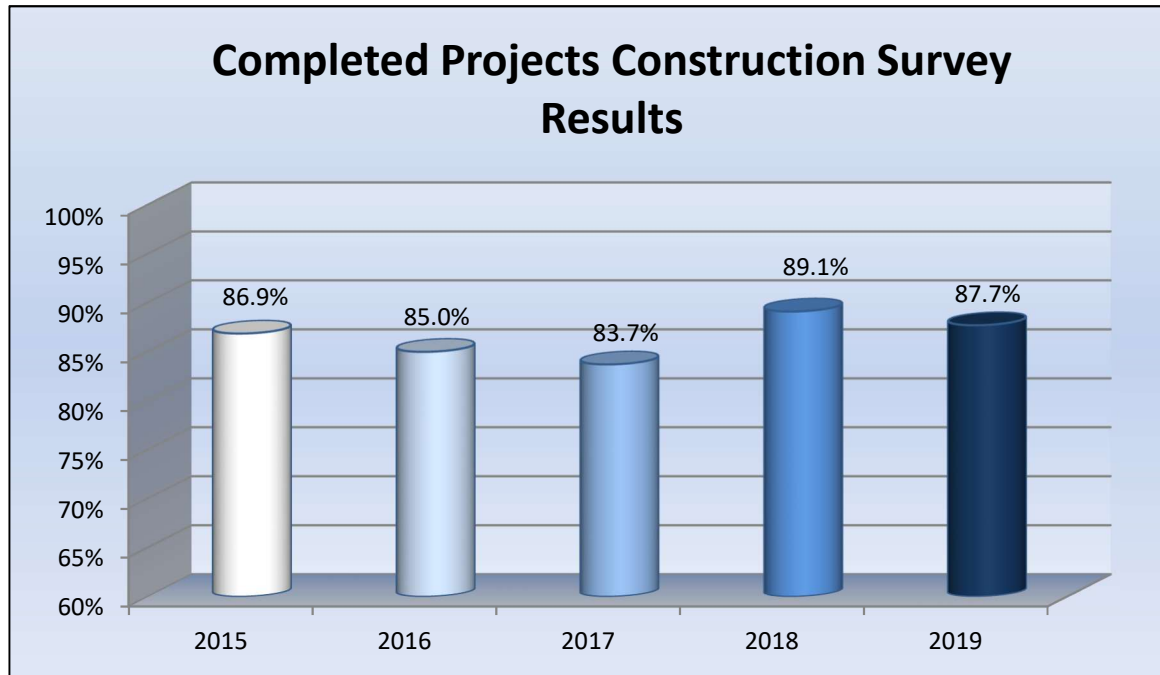
teams continue to meet with our Construction branch to incorporate lessons learned from construction issues on past similar projects. EFL is updating our formal evaluation of PS&E quality including verifying the plans and specifications are clear, accurate, and constructible.

- Structural Design Elements –Innovative materials and construction have been used on several projects to minimize construction durations and extend service life. Accelerated Bridge Construction techniques have been used on several projects which implemented the use of Prefabricated Bridge Elements and UHPC. Overall, the use of these innovative methods and materials have resulted in positive outcomes such as less disruption to the public and the delivery of quality products.
- Bridge Inspection Special Studies – Approximately 10 special studies have been conducted on bridges throughout several Parks. These special studies have resulted in identifying work required to the structures. Due to these studies, we have a better understanding of the condition of these bridges. Recommended work will be developed for these bridges and included in the Bridge Inspection Reports and the Regional Priority Lists.
- Bridge Management - Life Cycle Costs for the entire NPS inventory has been developed. This will be used to integrate deterioration modeling. The process will continue throughout FY20 and will be ongoing as bridges age.

## Completed Projects (Construction) Survey

The purpose of the Completed Project Survey is to assess the quality of all completed construction projects and overall FLH management practices.

EFLHD Overall Satisfaction Index Target  $\geq 85\%$



**Survey Results:** Overall the Completed Projects Survey score came in above our target value at 87.7%. A concerted effort by the construction office personnel to contact partner agencies to improve survey feedback response rate was continued for 2019. The results of this work continue improving rates from a low of 39% in 2012 to today's value of 50%. An analysis of the survey's results by the category area yielded the following results.

Category	2015	2016	2017	2018	2019	% Change
Management Practices	86.48	86.22	84.80	88.60	86.90	-1.70
Completed Project Elements	88.67	82.12	80.80	90.20	90.00	-0.20
Completed Project Aesthetics	87.69	83.91	82.70	90.10	89.00	-1.10
Conditions During Construction	86.00	86.14	83.70	87.70	91.80	4.10
Environmental Sensitivity	86.24	84.27	84.00	89.10	81.10	-8.00
Overall Rating	86.67	89.00	86.30	88.10	84.00	-4.10
<b>Overall Score</b>	<b>86.85</b>	<b>84.98</b>	<b>83.70</b>	<b>89.0</b>	<b>87.70</b>	<b>-1.30</b>

Questions resulting in the lowest scores for this survey period were:

- Environmental Sensitivity: Protection and preservation of natural, historical, and cultural resources. 81.1%
- FLH's Management Practices: FLH and construction contractors working together to resolve problems. 80.0%
- Completed Project Elements: Major structures (bridges, walls, etc.). 80.0%
- Completed Project Aesthetics: Major structures (bridges, walls, etc.). 80.0%

Question with the highest scores for the current survey period were:

- Completed Project Elements: Drainage structures (culverts, channels, and ditches). 100%
- Completed Project Elements: Stability of cut and fill slopes and road shoulders. 100%
- Completed Project Aesthetics: Earth shoulders and slopes (including rock slopes). 100%
- Completed Project Aesthetics: Drainage structures (culverts, channels, and ditches). 100%

A sampling of the written comments associated with this survey were:

- "Outstanding support from FHWA-EFLHD to El-Yunque National Forest after Maria devastated the entire Island of Puerto Rico. Danny Camacho and José Quinones were excellent to work with and kept us informed. We are very satisfied with project related communications, delivery and completion."
- "This project involved complicated MOT during construction. Pleased that the implementation and execution worked very well. Lorna and her team did an excellent job on this project."
- "This project involved complicated MOT during construction. Pleased that the implementation and execution worked very well. Project Engineer and her team did an excellent job on this project."

**Actions Taken:** We implemented the following actions last year:

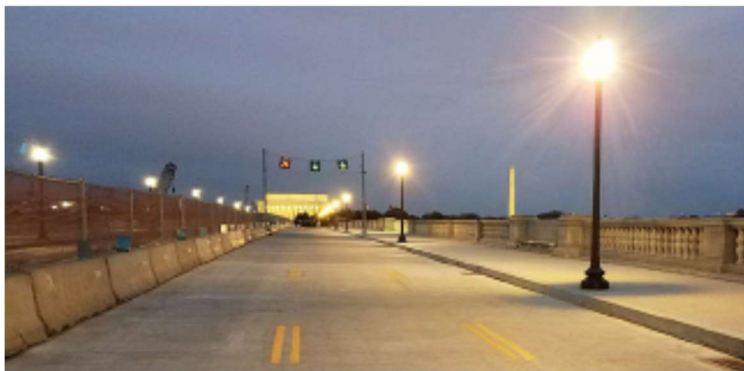
- We provided traffic control related training to project staff. This training would benefit the project staff to administer the construction contract for safety enforcement.
- We provided concrete related trainings (Admixtures, repairs, best practices and common issues) to project staff during the construction winter training. This training would enhance the skill of project staff during the inspection of bridge work.
- We provided erosion control related training (SWPPP) to project staff. This training would benefit the project staff to administer the construction contract for environmental enforcement.

## Accomplishments for Fiscal Year 2019

### Project Delivery

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#### Arlington Memorial Bridge Rehabilitation Completion of Phase 1, Washington DC/Arlington, Virginia



*View of the deck*



*Precast concrete deck installation*



*Installation of restored drawbridge face maintains the historic character of the bridge*



### **Pennsy Trail, Salamanca, New York**



Pennsy Trail, a newly revitalized multi-use trail project, was completely administered by the Seneca Nation through a 202(a)(9) agreement. A former railroad route on the Western New York and Pennsylvania Railroad System, the trail was widened and paved to include safety enhancements with installation of lighting, bollards, signage and emergency call boxes.

### **Seneca Nation of Indians Gateway Trail, Salamanca, New York**



The Seneca Nation of Indians Gateway Trail Project provides a paved, ADA compliant, pedestrian trail connecting Tribal administration buildings, museum, casino, and the Tribal community. The trail project included installation of lighting, benches, crosswalks and security features.

## Baltimore Washington Parkway, Maryland



*Before and After Pavement Condition*

### FHWA Administrator Project Award Recognition

At the request of the National Park Service, the Eastern Federal Lands Pavements Team mobilized to assess crumbling and deteriorated sections of the Baltimore-Washington (B-W) Parkway from MD 198 to MD 175. The severe pavement distress presented significant safety concerns, calling for enforcement of reduced speeds. Two projects were fast-tracked to award in early April 2019 via emergency letter contracts with construction completed by August 15, 2019.



## President's Park and White House, Washington, DC



Pavement resurfacing work and full depth pavement patching completed on Ellipse Road, South Grounds Road, and associated connection roads.

## **I-564 Intermodal Connector, Norfolk, Virginia**

The I-564 Intermodal Connector Design Build Project connects the existing I-564 through Naval Station Norfolk to Norfolk International Terminals and Virginia Port Authority.

*New Commercial Vehicle Inspection Station for trucks entering the Norfolk Naval Base and Ramp D.*



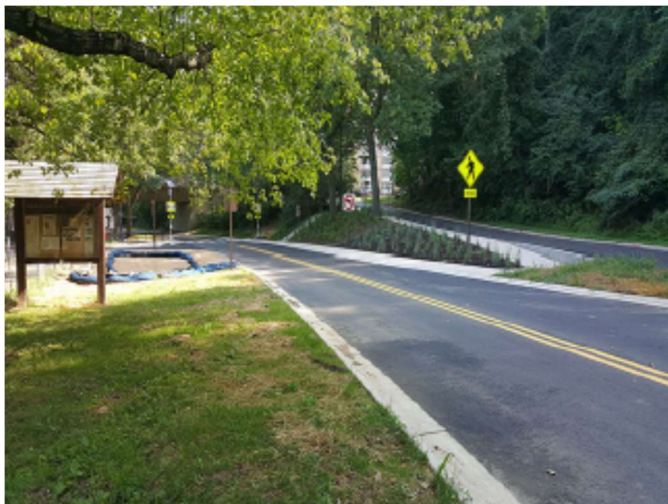
*Leaving the Port and Naval Station.*



## **Rock Creek Parkway, Washington, DC to Maryland State Line**



*Reconstruction of Beach Drive, with view of completed project below.*



*Completed section of Harvard Street near Beach Drive at National Zoo, with new bioretention pond visible to the left.*

## Blue Ridge Parkway, North Carolina



Completed Design Visualization of Precast Segmental Bridge carrying the Blue Ridge Parkway over Interstate 26. This project was delivered on time and on budget resulting in a set of drawings delivered to our partners, NPS and NCDOT, enabling the project to be ready to advertise within months.

## Innovation & Technology Deployment

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### Design Visualization and Virtual Reality

The FLH Design Visualization Team demonstrated a new capability at the EDC-5 Summit in Baltimore and again at the EDC-5 Peer Exchange Workshops in Connecticut and Hawaii. With focus on Advanced Geotechnical Exploration Methods and Virtual Public Involvement, the team incorporated 3D renderings and animations into a portable Virtual Reality (VR) format. This is accomplished by rendering an image or animation in a 360-degree spherical format as opposed to a traditional flat image. The image/animation is hosted online and, by use of QR codes, any participant at a public or partner meeting can view a design visualization with their own smartphone.

Inserting a smartphone into a pair of VR goggles allows for an inexpensive yet fully immersive experience “inside” a proposed project.

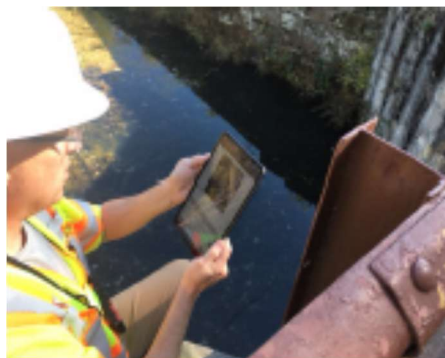


*3D design visualization via smart phone and VR goggles allows for virtual public involvement.*

### Bridge Inspection Program (BIP) Highlights

The BIP team FLH-wide is now using new web-based software Inspect Tech for structure data collection and report preparation. Use of the software on a handheld device during site inspections allows for greater efficiency, data management and storage.

*Mobile application in use,  
C&O Canal National  
Historical Park,  
Washington, DC.*



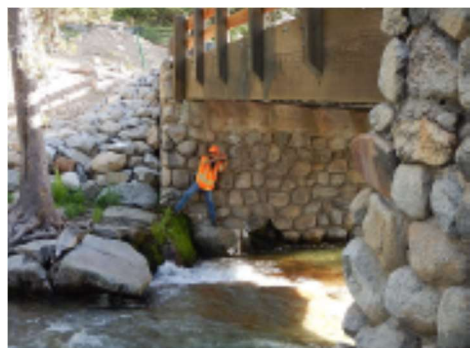
During FY 2019 the BIP team based at EFL inspected 1,086 National Bridge and Tunnel Inventory (NBI/NTI) structures, transmitted 997 inspection reports, updated load ratings for two different types of emergency vehicles, and completed scour studies for structures throughout the U.S. The BIP team working out of WFL performed 350 NBIS bridge inspections for BLM, NPS and Tribes and hosted one rotational employee from WFL Construction for a Bridge Inspection Assignment. CFL performed 145 inspections including structures and tunnels for NPS, Tribes and DoD.



*BIP "Snooper" vehicle in use, wind meter mounted on bridge is monitored remotely, Blue Ridge Parkway, VA*



*Under Bridge inspection via waterway,  
Colonial Parkway, VA*



*The many different perspectives on bridge  
inspection, Sequoia & Kings Canyon  
National Parks, CA*

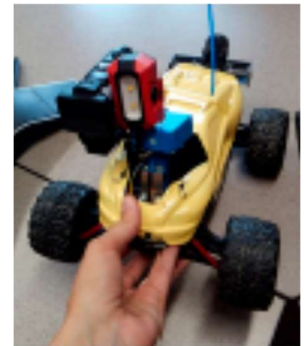
## National Road Inventory Program Highlights

The RIP team conducted inspections throughout Alaska in summer 2019. Gravel road assessments were a major focus and the team collected condition of FLTP roads for the BLM, USFS, and USACE along with the standard cyclic inspections for NPS and FWS. RIP has incorporated the use of GoPro cameras to record images/video on unpaved roads and a new online website (Pathweb) was opened for viewing data and video collected on all NPS paved roads. Other highlights include:

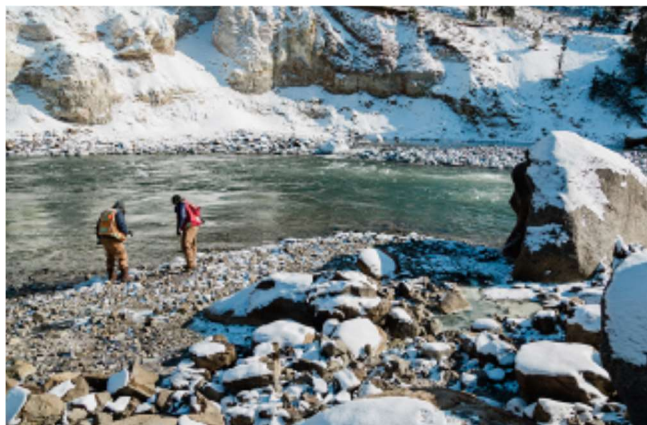
- Entering the final years of NPS Cycle 6 with inspections in the Regions formerly known as Southeast and Northeast
- FWS Cycle 5 completion of Region formerly known as Region 3 and continued inspections in the Regions formerly known as Regions 1 and 5
- BOR Cycle 1 inspections in the Upper Colorado and Mid-Pacific Regions
- Ground verification study to validate gravel and native road rating methods and alignment with PASER scores
- Defense Access Roads (DAR) at Minot AFB in North Dakota were inspected by the RIP team for the first time.
- RIP worked with FHWA-North Dakota and North Dakota State University to pilot the use of a remote-controlled vehicle to capture video inside culverts for DAR inspections



*RIP remote controlled tool in use for culvert inspections.*



*RIP Data Collection Vehicle (DCV) captures updated video on Denali Park Road for Cycle 6.*



*Geotechnical Engineers investigating a potential thermal feature during a field review, Yellowstone River, Montana Wyoming*



*Safety Audit, Hawaii Volcanoes National Park, Hawaii*

## **George Mason University (GMU) Civil, Environmental and Infrastructure Engineering Course**

During Fall 2019 the Eastern Division hosted 10 students from GMU offering specialized training in Survey and Mapping, Geotechnical Design, Construction, Bridge Design, and Bridge Inspection.



*Survey & Mapping Sessions, Eastern Division Office, Sterling, Virginia*



*Construction Field Trip, Arlington Memorial Bridge, Washington, DC*



*Geotechnical Design Session, Eastern Division Office, Sterling, Virginia*



*Bridge Design Session, Eastern Division Office, Sterling, Virginia*

*Bridge Inspection Field Trip, Turkey Run Bridge, George Washington Memorial Parkway, Virginia*



**Thank You for Your Feedback**