

Study on the Effectiveness and Benefits of Transportation Liaisons

July 2019



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13. ABSTRACT (Maximum 200 words) This study serves as a follow-up to one conducted by the Federal Highway Administration (FHWA) in October 2009 on the use of transportation liaison programs. This new study, referred to as the "2019 Study," focuses specifically on how nine State departments of transportation (DOTs) use transportation liaisons today to accelerate project delivery, and for those State DOTs that were part of the 2009 Study, how their programs have evolved. The 2019 Study finds that transportation liaisons play a direct role in accelerating project delivery, despite variations in liaison program structures.				
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Acronyms and Abbreviations

AOFA	Agency Operating and Funding Agreement
Caltrans	California Department of Transportation
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
DCNR	Pennsylvania Department of Conservation and Natural Resources
DEP	Pennsylvania Department of Environmental Protection
DOS-SHPO	Department of State – State Historic Protection Officer (DOS-SHPO)
DPR	California Department of Parks and Recreation, Office of Historic Preservation
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ETAT	Environmental Technical Advisory Team
FAST	Fixing America’s Surface Transportation
FDACS	Florida Department of Agriculture and Consumer Services
FDEO	Florida Department of Economic Opportunity
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FWC	Florida Fish and Wildlife Conservation Commission
FTE	Full-time equivalent
IPA	Intergovernmental Personnel Act
MAP-21	Moving Ahead for Progress in the 21 st Century
MIAC	Minnesota Indian Affairs Council
MnDNR	Minnesota Department of Natural Resources

MnDOT	Minnesota Department of Transportation
MnOSA	Minnesota Office of the State Archaeologist
MnPCA	Minnesota Pollution Control Agency
MnSHPO	Minnesota State Historic Preservation Office
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NCDEQ	North Carolina Department of Environmental Quality
NCDNCR	North Carolina Department of Natural and Cultural Resources
NCDOT	North Carolina Department of Transportation
NCWRC	North Carolina Wildlife Resources Commission
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	National Resources Conservation Service
NFWFMD	Northwest Florida Water Management District
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OFD	One Federal Decision
OHC	Ohio History Connection
PEL	Planning and Environmental Linkages
PennDOT	Pennsylvania Department of Transportation
PFBC	Pennsylvania Fish and Boat Commission
PGC	Pennsylvania Game Commission
PHMC	Pennsylvania Historical and Museum Commission
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SCDAH	South Carolina Department of Archives and History
SCDOT	South Carolina Department of Transportation
SFWMD	South Florida Water Management District
SHPO	State Historic Preservation Office
SJRWMD	St. Johns River Water Management District
SOP	Standard operating procedures
SRWMD	Suwannee River Water Management District
State DOT	State department of transportation
SWFMWD	Southwest Florida Water Management District
TEA-21	Transportation Equity Act for the 21 st Century
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WSDOT	Washington State Department of Transportation

Executive Summary

In 2009, the Federal Highway Administration (FHWA) published the “State Transportation Liaisons Funded Positions Study” (2009 Study), which evaluated how State departments of transportation (DOTs) were using “funded positions,” also known as transportation liaisons.¹ This report (hereinafter referred to as the “2019 Study”) serves as a follow-up to the 2009 Study.

Transportation liaisons work at State or Federal resource and regulatory agencies and are funded by State DOTs to accelerate environmental reviews and permitting of transportation projects. Such transportation liaison programs are not required. Instead, Federal legislation has made transportation liaisons an eligible activity for State DOTs wishing to expedite project delivery activities.

The Transportation Equity Act for the 21st Century (TEA-21), passed in 1998, first allowed State DOTs, under Section 1309(e), to use title 23 funds to establish staff positions at resource and regulatory agencies to facilitate the environmental review and permitting processes for transportation projects and ensure projects adhere to deadlines. Subsequent Federal legislation continued support for the use of title 23 funds for these purposes. The Fixing America’s Surface Transportation (FAST) Act most recently adjusted the eligibility of agencies and funding to expand the type of entities that can provide transportation liaison funding and the types of funds that may be used for section 139(j) purposes.²

The 2019 Study revisited six of the eight original States from the 2009 Study (California, Florida, North Carolina, Ohio, South Carolina, and Washington) to understand how their transportation liaison programs have evolved over the past decade. In addition, FHWA engaged three new States (Colorado, Minnesota, and Pennsylvania) to learn how liaison program practices have grown and operate today. FHWA did not engage States without liaison programs in this study. The 2019 Study specifically focused on the question of “*How have transportation liaisons contributed to accelerating project delivery?*”

FHWA held teleconferences with the nine State DOTs as well as a cross-section of their resource and regulatory agency liaison counterparts to obtain feedback about how the transportation liaison programs in their States work. Twenty-four teleconferences were held between April and October 2018. FHWA also reviewed available agreements from the States’ transportation liaison programs.

The interviews and agreements reviewed demonstrated that transportation liaison programs appear to vary widely in structure and setting. State DOTs and the resource and regulatory agencies organize their programs in different ways in order to maximize the benefits

¹ The report is available at: https://www.environment.fhwa.dot.gov/Pubs_resources_tools/publications/fundedPositionsReport/report.aspx.

² See 23 United States Code 139(j)(1)(A) and (B).

transportation liaisons can provide. These differences extend to the number of liaisons and the agencies involved in a State's transportation liaison program, the specific structure used to manage the program, the type and schedule of funding involved, and the frequency of coordination used to manage and direct liaison workloads. Despite variations in program structures and settings, the 2019 Study found transportation liaisons accelerated project delivery, primarily by expediting resource agency reviews and providing more predictability and consistency for State DOTs in the project delivery process.

In addition to project delivery contributions, the 2019 Study States identified benefits, challenges, and recommendations to help others establish and manage programs, such as:

Benefits

- Set expectations between State DOTs and resource/regulatory agencies, including priorities
- Expedited work processes
- Dedicated staff to create familiarity with the State DOT
- Responsiveness and communication, leading to enhanced level of service
- Increased predictability and reduced time frames
- Improved coordination and strengthened relationships
- Opportunities for collateral duties
- Ability to meet statutory deadlines

Challenges

- Stability of positions and staff turnover
- Navigating performance issues
- Managing change in agency leadership
- Clarifying expectations when establishing agreements
- Avoiding conflicts of interest

Recommendations

- Monitor liaison program activities.
- Utilize longer-term agreements to reduce administrative requirements.
- Ensure positions are permanent with competitive pay and flexible work assignments.
- When looking for liaison candidates, focus on qualities such as strong communication skills, excellent time management, and interpersonal skills.
- In addition to a thorough knowledge of their own program, the liaison would also have a deep understanding of the State DOT's processes and organizational culture.
- Establish and regularly revisit performance measures, or other level of service indicators.
- Institute robust and consistent performance reporting to monitor effectiveness.
- Ensure projects and priorities are established for the liaison, or a process to identify projects and priorities is in place.
- Make open communication a primary focus.
- Designate a primary point of contact at the State DOT and resource/regulatory agency.
- Pursue policies or procedures to retain institutional knowledge.

- Allow sufficient time for developing agreements and ensuring consensus on expectations.
- Involve liaisons in other aspects of planning, project development, and training as time allows.

Overall, in the 2019 Study, States found liaisons to be an effective option to prioritize and accelerate project delivery activities. Many of the States' liaison programs began in response to resolving specific issues, but over time have been integrated into State DOTs' regular business practices and are seen today as "business as usual."

Introduction

Background

State and Federal agencies are often under pressure to conduct efficient and effective environmental reviews. Early coordination and communication among agencies can advance projects more quickly, but challenges may arise as a result of more project demands and limited time and resources. Transportation liaisons—State or Federal resource and regulatory staff funded by State departments of transportation (DOTs)—work to address these challenges by serving as a bridge between the State DOTs and their resource and regulatory partners.³ Transportation liaisons accelerate environmental reviews and permitting of transportation projects and help project delivery processes move more smoothly.

In October 2009, the Federal Highway Administration (FHWA) published the “State Transportation Liaisons Funded Positions Study” (2009 Study), which assessed the state of the practice of funded State transportation liaison programs.⁴ This report builds upon the 2009 Study, and follows up with some of the original States that participated. FHWA also engaged several new States to examine how transportation liaison programs have evolved and the effectiveness, benefits, and challenges of the programs over time.

What is a Transportation Liaison?

Transportation liaisons are personnel housed in State or Federal resource and regulatory agencies (e.g., U.S. Army Corps of Engineers, U.S. Environmental Protection Agency) that facilitate the environmental review and permitting processes for transportation projects. The goal of a transportation liaison is to improve the timeliness of agency response to State DOTs and provide input and comments on projects early in the planning process. Early coordination and communication can alert the DOTs of environmental issues so that they can avoid and minimize environmental impacts prior to submitting a project for review. Not only does this process improve environmental outcomes, it also saves time and money.

³ Resource agencies are typically located at both the Federal and State levels. Federal resource agencies include the agencies responsible for Federal policies related to the conservation or preservation of natural or cultural resources, such as the U.S. Environmental Protection Agency and the U.S. Fish and Wildlife Service. State resource agencies often include State departments of natural environment or conservation and State historic preservation offices. Resource agencies are separate from regulatory agencies, such as the U.S. Army Corps of Engineers, which manage regulatory requirements that may pertain to the permitting and delivery of transportation projects. For the purposes of this report, references to “resource agency” represent both resource and regulatory agencies.

⁴ The report is available at:

https://www.environment.fhwa.dot.gov/Pubs_resources_tools/publications/fundedPositionsReport/report.aspx.

Context

Connections to Federal Legislation

The history of the transportation liaison position dates back to the 1990s.⁵ During that time, many State and Federal agencies struggled to keep up with transportation projects, as the number of projects grew, and with them, the length of environmental and permitting review timelines. The Transportation Equity Act for the 21st Century (TEA-21) of 1998, specifically Section 1309(e), allowed States to use title 23 funds to establish staff positions at resource agencies to facilitate the environmental review and permitting processes for transportation projects and ensure projects adhere to deadlines.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 reauthorized TEA-21 and further allowed States to enter into voluntary, interagency and/or intergovernmental agreements. Under SAFETEA-LU, States could establish agreements with Federal and State agencies (including the U.S. Department of Transportation [USDOT]), and Indian tribes to expedite and improve the review of transportation projects receiving financial assistance under title 23. States often use these agreements to establish transportation liaisons, who can help accelerate project delivery. SAFETEA-LU Section 6002 (codified in 23 United States Code [U.S.C.] 139(j)) identifies various activities for which States may use Federal-aid funding to accelerate project delivery. These may include transportation planning activities that precede the initiation of the environmental review process, activities directly related to the environmental review process, dedicated staffing, training of agency personnel, information gathering and mapping, and development of programmatic agreements.

In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) continued authorization for transportation liaisons funded under title 23. MAP-21 also required States and Federal agencies receiving funding for dedicated staffing to establish a Memorandum of Understanding (MOU) that indicates the projects and priorities to be addressed (under Section 1307 and codified at 23 U.S.C. 139(j)(6)). The Fixing America's Surface Transportation (FAST) Act of 2015 (specifically Section 1304(i)) broadened this provision so that an agreement, and not necessarily an MOU, is required. In addition, such agreements may present a process to identify projects and priorities that will be addressed by the funding as opposed to naming specific projects and priorities directly. The agreement must be agreed upon and finalized prior to the approval of funding.

The FAST Act also made two specific adjustments related to the eligibility of agencies and funding for liaison programs.

⁵ Other common terms for transportation liaison positions include “funded positions,” “external liaisons,” and “funded liaisons.” For the purposes of this report, the terms “transportation liaison position” or “transportation liaison” are used as the primary terms throughout.

- *Expanded the type of entities that can provide transportation liaison funding.*
Under the FAST Act, “public entities” receiving funding from the USDOT under title 23 or chapter 53 of title 49 may use such funding for liaison positions. For FHWA, the “public entity” is typically a State transportation department, such as a State DOT. The entity receiving the funds from the “public entity” for the liaison position may be a Federal or State agency or Indian tribe.
- *Expanded the types of funds that may be used for section 139(j) purposes.*
The FAST Act removed specific reference to the use of title 23 funds. Section 139(j)(1)(A) now solely references “funds,” which may be provided to “Federal agencies (including the Department), State agencies, and Indian tribes participating in the environmental review process for the project or program.” FHWA approval is still required in all cases for section 139(j) activities, even if non-title 23 funds are used.

In addition to the authority under section 139, Section 214 of the Water Resources Development Act of 2000, as amended, allows the Secretary of the Army to accept and expend funds contributed by non-Federal public entities, public-utility companies, natural gas companies, and railroad carriers to expedite permit evaluation for that entity, company, or carrier related to projects or activities with a public purpose. This authority has been delegated from the Secretary of the Army to U.S. Army Corps of Engineers (USACE) Districts. Under Section 214, USACE can enter into funding agreements with allowable entities that can be used to expedite the review of permit applications and other activities that contribute toward expediting permit evaluation for public infrastructure projects. The majority of USACE’s transportation liaison agreements with State DOTs have been executed under Section 214, but USACE has also utilized 23 U.S.C. 139(j) and 49 U.S.C. 307.

Connections to 2009 Study

This study (hereinafter referred to as the “2019 Study”) builds on FHWA’s 2009 Study, which looked at eight States with transportation liaison programs.⁶ The 2009 Study included a literature review as well as a series of interviews with participants involved in the States’ transportation liaison programs to understand how the programs were being used.

The 2009 Study findings were organized into key themes, including:

- Assessing the need for funded positions;
- Formalizing funding agreements;
- Finding and hiring liaisons;
- Providing training opportunities;
- Resolving institutional/interagency relationship issues;

⁶ The 2009 Study surveyed eight States with transportation liaison programs of various size and duration. The States were: California, Florida, North Carolina, Ohio, South Carolina, Tennessee, Utah, and Washington.

- Involving liaisons in planning activities; and
- Establishing performance measures.

In designing the current study, FHWA sought to incorporate perspectives from 2009 Study participants as well as integrate the activities and experiences of new liaisons, State DOTs, and resource agencies not represented in the previous study. By organizing the study this way, FHWA aimed to allow for a retrospective evaluation of existing liaison programs represented in the 2009 Study, while also presenting current, on-the-ground examples of liaison activities.

Study Purpose and Report Organization

This study explores the question, “*How have transportation liaisons contributed to accelerating project delivery?*” The 2009 Study found that transportation liaison programs had the potential to significantly accelerate the environmental review process. The 2019 Study revisits multiple States involved in the 2009 Study and includes new States to illustrate how liaison program practices have evolved and operate today. This study centers around liaisons’ contributions to accelerating project delivery. The study uses quantitative data derived from liaison program agreements and qualitative data shared by the 2019 Study States to address liaisons’ contributions. In addition, the study identifies benefits and challenges in developing and managing transportation liaison programs, and offers recommendations and considerations for addressing the challenges.

This report begins with background information and legislative history on transportation liaison programs. It then reviews the purpose of the effort and the methodology used to obtain information. This report provides an overview of the study findings from the various States’ transportation liaison programs and describes how the programs are contributing to accelerating project delivery, and exploring benefits and challenges raised by study participants. The report pairs each challenge with potential ways to address the issue and concludes by summarizing study findings to help inform future transportation liaison programs.

Study Methodology

The 2019 Study followed a similar methodology used for the 2009 Study, focusing on teleconference interviews and a review of liaison program agreements. The 2019 Study also included a scan to identify any new resources since the 2009 Study, but was not able to locate any new general literature on transportation liaison programs. As a result, the 2019 Study focused on a review of the liaison program agreements provided by the participating agencies.

FHWA and Accelerating Project Delivery

Accelerating project delivery refers to speeding up the environmental review process for surface transportation projects by institutionalizing best practices without undermining critical environmental laws or opportunities for public engagement. Funding transportation liaisons is one best practice that also ties in to and promotes several other initiatives that FHWA is working on to accelerate project delivery, such as:

- **Planning and Environmental Linkages (PEL)**: A collaborative and integrated approach to transportation decisionmaking that considers environmental, community, and economic goals early in the planning process and uses that information to inform the environmental review process.
- **One Federal Decision (OFD)**: Established under Executive Order 13807, issued on August 15, 2017, OFD sets a Government-wide goal of reducing the time for agencies to complete environmental reviews and authorization decisions to an average of two years for “major infrastructure projects.”
- **Eco-Logical**: A landscape-scale approach for planning and developing infrastructure projects that brings together infrastructure, resource, and regulatory agencies, and others, to form strong partnerships and accelerate project delivery while advancing environmental conservation and protection.
- **The Second Strategic Highway Research Program’s Expediting Project Delivery**: A product aimed at accelerating planning and environmental review processes for transportation projects. It identifies 24 strategies for addressing or avoiding 16 common constraints to accelerating project delivery. Funding liaison positions is one of the strategies.

Participating States

Of the eight States that participated in the 2009 Study, FHWA identified six to contact for the 2019 Study (California, Florida, North Carolina, Ohio, South Carolina, and Washington). In order to achieve a representative sample of programs across the country, these States were selected based on their continuing liaison programs, size, and geographic location. Considerations were also given to ensure representation from 2019 Study States that have

assumed National Environmental Policy Act (NEPA) responsibilities.⁷ In addition, FHWA selected three new States (Colorado, Minnesota, and Pennsylvania) to participate in the 2019 Study based on a scan of liaison programs nationwide as well as feedback provided by FHWA Division Offices and the FHWA National Transportation Liaisons to achieve a nationally representative sample.⁸ Figure 1 shows a map of the 2019 Study States.

The study team engaged FHWA Division Office environmental contacts in each proposed State to identify the appropriate State DOT points of contact. State DOT contacts were typically those personnel who manage the transportation liaison program. The State DOT contacts then provided contact information for transportation liaisons at resource agencies they recommended for follow-up. These liaisons included those who serve at Federal and State resource agencies.

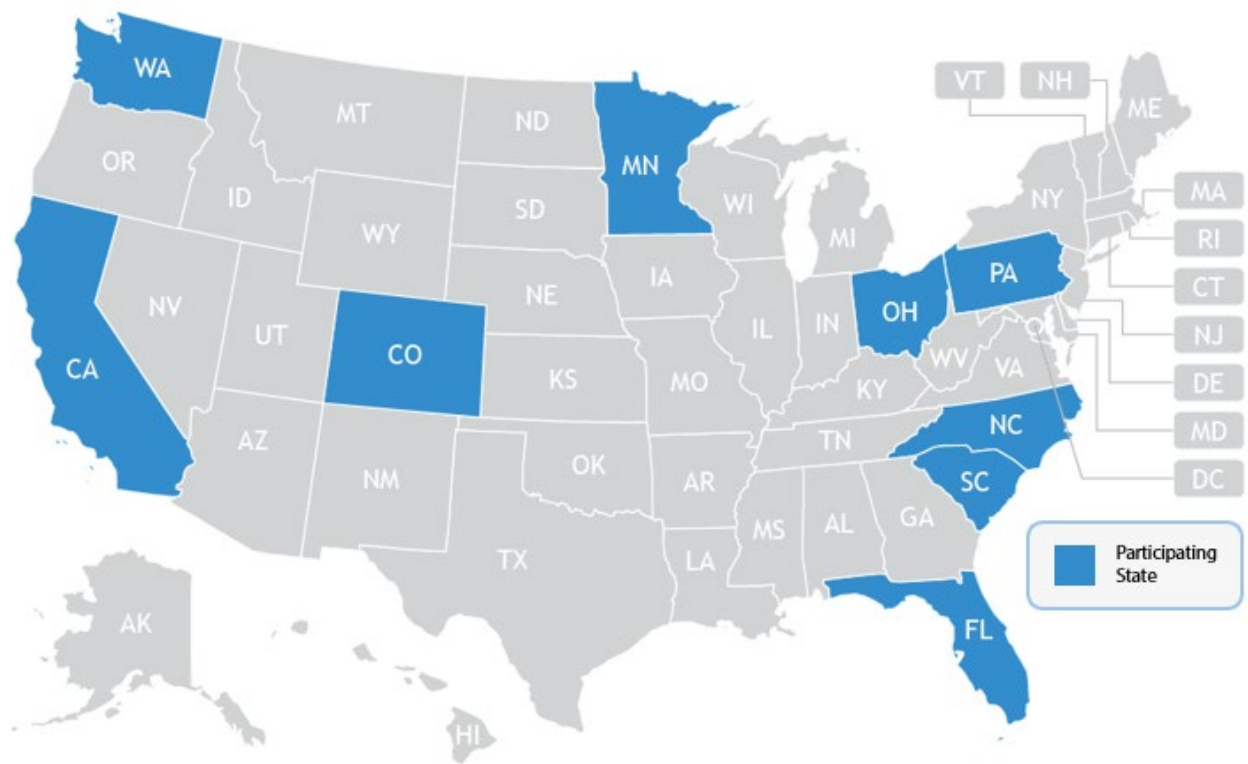


Figure 1: Map of 2019 Study States.

⁷ The Surface Transportation Project Delivery Program (23 U.S.C. 327), also referred to as NEPA Program Assignment, allows the Secretary of Transportation to assign, and the State to assume, the Secretary's responsibilities under NEPA for one or more highway projects. For additional information, visit https://www.environment.fhwa.dot.gov/nepa/program_assignment.aspx. The 2019 Study States with NEPA Assignment are California, Florida, and Ohio.

⁸ The FHWA National Transportation Liaisons serve as FHWA's connection to Federal resource and regulatory agencies, as well as facilitate coordination among these agencies and FHWA. For additional information, visit https://www.environment.fhwa.dot.gov/about/contacts_agencyLiaisons.aspx.

Interviews

The study team held one-hour interviews with the State DOT contacts to learn about their transportation liaison programs. Nine interviews were conducted between April and October 2018.

Following the State DOT interviews, the study team contacted transportation liaisons in each State based on recommendations provided by the State DOT contact(s). The liaisons participated in one-hour interviews, similar to those held with the State DOTs. Fifteen interviews were held during the same time period with the liaison contacts.

A list of the State DOT and liaison contacts who participated in the study is provided in Appendix A, along with the date of each interview. Appendix B provides the questions used to guide the interviews.

Review of Agreements

In addition to participating in the teleconference interviews, State DOT contacts provided copies of their transportation liaison program agreements. The study team reviewed these agreements to supplement the interviews and capture any additional information not directly shared during the teleconferences. A total of 34 agreements were provided and reviewed. Appendix D provides the liaison agreements used as part of the study effort.

General Findings

Overall Program Attributes

The findings presented below reflect information shared during the interviews and derived from the liaison agreements review as related to the overall characteristics of the liaison programs.

Agencies Involved

All of the 2019 Study States engaged Federal and State agency partners to establish transportation liaison positions.⁹ Federal level agencies included:

- National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA/NMFS)
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Forest Service (USFS)

Overall, the 2019 Study States engaged a greater number of State resource agencies than Federal agencies, in line with the findings of the 2009 Study.

⁹ At the time of publication, none of the 2019 Study States have transportation liaison agreements in place with Federally recognized Indian tribes, one of the eligible uses of funding for section 139(j) purposes.

The number of State resource agencies engaged by a State DOT for a transportation liaison program varies based on where the needs are. Four State DOTs (Colorado, Minnesota, South Carolina, and Washington) have a transportation liaison agreement in place with one State agency. Four other State DOTs (California, North Carolina, Ohio, and Pennsylvania) have agreements established with multiple State agencies. Appendix C provides additional overview information about each of the States engaged in the 2019 Study and a list of State resource agencies involved in each liaison program.

Program Size and Structure

The number of liaisons within a State DOT's transportation liaison program differs. All of the 2019 Study States have more than one liaison position in place; however, the number of liaisons funded by a State ranges significantly. Appendix E lists the 2019 Study States and the number of Federal and State agency liaisons they had in 2009 (if applicable) and in 2019.

In designing the liaison position, the 2019 Study States varied in how they managed the role organizationally. Some programs have liaisons that are State DOT employees, and detailed to the resource agency. Some liaisons have direct reporting relationships to the State DOT and resource agency. Other liaisons are solely resource agency employees, and are hired and evaluated as such.

The 2009 Study indicated that States with larger liaison programs typically had more years of program experience than did States with smaller programs.¹⁰ While this perspective generally holds true today, several State DOTs involved in the 2019 Study discussed their efforts to monitor liaison program activities to ensure they involved the right agencies and the right number of liaisons and adjusted these numbers as needed (whether reducing or adding positions).

Formalizing Funding Agreements

Under MAP-21 and the FAST Act, more formal standards now exist for transportation liaison programs, but the inherent flexibility originally provided under SAFETEA-LU remains. Under the FAST Act, State DOTs may determine the type of agreement they wish to use as long as an agreement is in place prior to funding. All of the States in the 2019 Study had agreements in place for their transportation liaison programs, but the structure of these agreements varied broadly.

Agreement Type and Length

The most common naming convention for liaison program agreements by the 2019 Study States was MOU. Four State DOTs in the 2019 Study had MOUs in place; however, agencies also used:

- Consulting Services Agreement (CA)
- Memorandum of Agreement (MOA) (CA, MN, PA)

¹⁰ 2009 Study, p. 8.

- Collection Agreement (CO)
- Agency Operating and Funding Agreement (AOFA) (FL)
- Inter-agency Request for State Agency Services (MN)
- Reimbursement Agreement (NC)
- Cooperative Agreement (OH, SC)
- Personal Service Contract (OH)
- Intergovernmental Agreement (PA)
- Inter-personnel MOA (PA)
- Intergovernmental Personnel Act (IPA) agreement (WA)

The type of liaison program agreement did not appear to raise as much discussion among State DOTs and their resource agency partners as term lengths and funding mechanisms. Many State DOTs have worked to increase term lengths and use State funds rather than Federal funds, to encourage program stability and reduce administrative burdens.

Only 22 percent of the agreements reviewed under the 2009 Study were five years in length.¹¹ In contrast, approximately 62 percent (21 agreements) had durations of five years under the 2019 Study. The five-year term for liaison program agreements was the most common among the 2019 Study States. Two agreements had durations of six years. Appendix F: Length of Liaison Program Agreements in 2019 Study States provides a summary of the duration of all agreements reviewed.

During the study interviews, one 2019 Study State noted its interest in extending liaison agreements to 10-year terms. Having longer-term agreements can reduce administrative requirements for the State DOT and resource agency. A longer term can also provide more certainty and stability to a liaison program, as agencies can often recruit and retain more qualified and experienced candidates. One of the 2019 Study States raised this issue in light of using IPA agreements with Federal resource agencies, which requires a break in service; however, its liaison programs with State resource agencies did not have such a requirement.¹²

Funding Mechanisms

States may use Federal or State funds to support transportation liaison programs. Only two States use Federal funding for the liaison program. The other 2019 Study States used a combination of Federal and State funds, or solely rely on State funds to administer their programs.

Finding and Hiring Liaisons

Several of the 2019 Study States discussed the importance of hiring the right candidate for a liaison position. The qualities essential for a successful liaison candidate include strong communication skills, excellent time management and interpersonal skills, and a deep understanding of the State DOT and resource agency's processes, organizational culture, and

¹¹ 2009 Study, p. 25. The 2009 Study reviewed 46 agreements, of which 10 had durations of 5 years.

¹² One State has agreements with USFWS and NOAA/NMFS. The agreements are for two years. At the end of a term, the State DOT can extend the agreement for an additional two years. At the end of the four years, the liaison must take a one-month break in service. For the NOAA/NMFS agreements, after four years, the liaison must take a one-year break in service.

NEPA and environmental laws. As noted earlier, most of the 2019 Study States use five-year terms for their liaison program agreements, in part to attract and retain the most qualified candidates.

Performance Measures

All of the 2019 Study States use performance measures in some capacity. The liaison programs use a combination of quantitative and qualitative measures no matter the duration of their programs. For many of the States, having quantitative measures can justify the program to new leadership, help answer questions, or serve as a fail-safe option in the event larger discussions about the program's role are needed.

Performance measures are critical for agencies to confirm that liaisons contribute to accelerating project delivery. Performance measures that help agencies gauge this concept include timeliness, completeness, and the number of tasks completed. An example of a performance measure used by a State DOT in the 2019 Study is a goal of having greater than 80 percent of decisions within 60 days of a complete application or a percentage of concurrence letters in 90 days or less. States are able to track the effectiveness of the quantitative performance measure by comparing it to a baseline prior to establishing the liaison position, or against data from previous years. Some States also compare measures against agencies that do not have liaison positions. Other States even use liaison satisfaction, from both the State DOT and resource agency perspective, as a measure. Seven of the nine State DOTs interviewed noted that having performance measures for their liaison programs contributes to accelerating project delivery. Each of these States have quantitative performance measures in place.

Two States did not specifically mention that performance measures contribute to accelerating project delivery. Of these States:

- One State does not have any specific performance measures in place. Instead, the State focused on level of service as an indicator that liaisons contribute to expedited project delivery. This State discussed anecdotal evidence that response times are lower than other States without liaisons. The State also focused on ensuring both parties to the liaison agreement are happy with the arrangement.

- The other State tracks one quantitative measure of percent participation in specific activities. This measure may not influence project delivery times; however, this State did note that their liaisons contribute to accelerating project delivery overall.

Examples of Federal Agency Performance Measures

The study team reviewed Federal agency liaison agreements to determine commonalities across performance measures. The 2019 Study States shared seven USFWS liaison agreements and seven USACE agreements with the study team. The USFWS performance measures had little commonality across States. Performance measures that were part of at least two agreements include percent participation in coordination meetings and field meetings, and a general metric to complete reviews and deliver consultations within established time frames. Other metrics listed in the agreements included time frames for expedited and emergency review and the number of submissions that are elevated to management.

The USACE performance measures had more commonalities across States. The States discussed USACE's participation in planning and programming screens and review of requested environmental documents. For five States, all included time frames for decisions on General Permits and Nationwide Permits within a specific number of days a certain percentage of the time. For example, one State requests decisions within 45 days at least 80 percent of the time. The time frames range from 25 to 60 days. Four States provide time frames for decisions for Individual Permits and a measure to provide notification for additional information or clarification within a specific period of time. Other common performance measures that were seen in three State agreements included disseminating the 30-day Joint Public Notice within a specific time frame and issuing the Jurisdictional Determination within a specific period of time.

Despite a lack of commonality of Federal agency performance measures across States, all States negotiated performance measures that work for their program's needs.

Comparisons between 2009 and 2019 Liaison Programs

The way in which a State DOT designs its liaison program often comes from experience and experimentation of various organizational arrangements over time. The 2009 Study first cited this finding, which was reaffirmed through the 2019 Study.¹³ States with more mature liaison programs often test different formulations for their programs as they determine the most cost-effective and efficient routes.

As with the 2009 Study, the nine States reviewed under the 2019 Study represented various approaches to establishing transportation liaison programs. All had customized their programs to fit their specific needs and maximize the benefits transportation liaisons can provide. These differences extended to the agencies involved and the number of liaisons in a State's

¹³ 2009 Study, p. 12.

transportation liaison program, the specific structure used to manage the program, the type and schedule of funding involved, and the methods used to manage and direct liaison workloads.

The 2019 Study also sought to reflect on other key findings from the 2009 Study to determine the extent of changes to the state of practice of transportation liaisons, using some of the themes identified in the 2009 Study. Most of these findings continue to hold true today. For many of the findings, the 2019 Study found that a marked evolution has occurred as the State DOTs continue to refine their programs.

Table 1 summarizes the key findings from the 2009 Study and the corresponding findings from the 2019 Study.

Table 1: Comparison of Key Findings from 2009 Study and Corresponding Findings from 2019 Study.

Key Finding from 2009 Study¹⁴	Corresponding Finding from 2019 Study
<i>Assessing the need for transportation liaisons</i>	
Agencies used transportation liaisons to help address a variety of challenges, including difficulties related to project delivery, a need to improve communication or dialogue among agencies, and a need to better link planning and environmental review processes.	Agencies continue to use transportation liaisons, primarily to address project delivery issues. The roles of transportation liaisons in supporting improved communication and early coordination were cited as ancillary benefits by most States rather than as core reasons for establishing their liaison programs.
<i>Formalizing funding agreements</i>	
Developing an MOU or other agreement to formalize the transportation liaison program helped liaisons, State DOTs, and resource agencies define roles and responsibilities.	Recent Federal legislation has provided guidance on developing MOUs or other agreements for transportation liaison programs. MAP-21 set forth the requirement for an MOU that indicates the project and priorities to be addressed by the use of the funds. The FAST Act expanded this provision so that an agreement, and not necessarily an MOU, is required. In addition, the agreement may present a process to identify the projects and priorities rather than naming them specifically. All of the States involved in the 2019 Study have agreements in place, even if the types of agreements vary.
<i>Finding and hiring liaisons</i>	
Funded positions require strong written and oral communication skills, a clear understanding of the agency's mission and goals, and the ability to address sometimes competing sets of demands. Hiring-related challenges included recruiting qualified candidates for short-term liaison positions. Many States found that a five-year funding term helped to minimize staff turnover.	The same qualities identified for success in a liaison position in the 2009 Study carried through in the 2019 Study. States continue to seek the longest-term lengths available, with most using a five-year funding term. None of the 2019 Study States use terms longer than five years. Many States have settled on the five-year term given the administrative burden of reestablishing agreements more frequently and the stability such a time frame can provide. One State is even pushing to extend agreements to a 10-year term.

¹⁴ 2009 Study, p. vi. Some of the key findings have been condensed for brevity and use in the table above.

Key Finding from 2009 Study ¹⁵	Corresponding Finding from 2019 Study
<i>Providing training opportunities</i>	
The 2009 Study focused on the importance of training liaisons on transportation-specific topics. Transportation liaisons reported that access to appropriate training provided them with the ability to more effectively navigate the permitting process.	The 2019 Study investigated the use of liaisons to provide training to State DOT staff. While training was raised in study interviews, it was not a primary component of 2019 Study States' liaison programs. For most States, the goal of accelerating project delivery comes before training State DOT or resource agency staff. Some States have liaisons attend internal trainings or conferences, but these activities are often limited and on an as-needed basis.
<i>Resolving institutional/interagency relationship issues</i>	
Liaisons with a single point of contact at the State DOT often found it easier to negotiate effectively between the State DOT and the resource agency.	Outside of accelerating project delivery, the liaison's role in building and strengthening agency relationships was the most-cited secondary benefit. The 2019 Study States continue to find value in having the liaison serve as a primary point of contact for the resource agency, while identifying a corresponding point of contact at the State DOT to ensure that processes remain efficient.
<i>Involving liaisons in planning activities</i>	
Several resource agencies and State DOTs encouraged, or in some cases required, the involvement of funded positions in transportation planning activities, such as commenting on the regional transportation plans of MPOs.	None of the 2019 Study States directly encouraged or required their liaisons to participate in transportation planning activities; however, some States generally discussed liaison involvement in early coordination efforts for transportation projects. As their time allows, and depending on the State DOT's preferences, liaisons more commonly engage in activities that advance programmatic approaches, such as the development of programmatic agreements for Section 7 consultations under the Endangered Species Act (ESA).
<i>Establishing performance measures</i>	
Agencies in the early stages of implementing a funded positions program tended to utilize quantitative evaluation metrics, such as permit-turnaround time and number of permits approved, to evaluate liaisons' performance. More mature programs also integrated qualitative metrics into performance evaluation.	State DOTs continue to use a mix of quantitative and qualitative measures to monitor their programs. All of the 2019 Study States have measures identified in their agreements, but the specificity of these measures as well as the weight that a State DOT places on them for decisionmaking vary. Many States still rely on quantitative performance measures, but allow notes or caveats for extenuating circumstances, such as a rush of emergency projects that may impact turnaround times. States are focused on ensuring their programs work and understanding why there are issues when they arise.

Benefits of Liaison Programs

The 2019 Study specifically engaged the nine States to learn how they were using liaisons to accelerate project delivery. Despite variations in program structures and settings, the 2019 Study States confirmed that accelerating project delivery was the primary benefit of their liaison programs. Seven of the nine State DOTs interviewed specifically cited this benefit. The other two States alluded to this benefit during the interviews. Liaisons create efficiencies and reduce the environmental review timeline primarily by expediting resource agency reviews and

¹⁵ 2009 Study, p. vi. Some of the key findings have been condensed for brevity and use in the table above.

providing more predictability and consistency for the State DOTs in the overall project delivery process.

The sections below provide additional information on how liaisons are contributing to accelerating project delivery, in no particular order.

Liaison Positions Allow State DOTs to Set Priorities at Resource Agencies

23 U.S.C. 139(j)(6) states that the agreement between the State DOT and resource agency should establish the projects and priorities, or the process to determine priorities, to be addressed by the use of the funds. Many resource agencies typically take actions, such as reviewing projects or processing permits, on a first-in, first-out basis. The ability of the State DOT to establish priorities for the liaison position helps ensure the liaison can expedite priority projects needed by the State DOT in a timely manner. For example, if a State DOT has an emergency project for which a permit is required, they can direct the resource agency to review that project before any others in their queue. In addition, if there is a politically sensitive project, the State DOT can ensure the specific project is reviewed quickly. One State DOT stated that their ability to prioritize projects has directly helped accelerate their project delivery process. Another State DOT noted that the liaison relationship gives them more say in the prioritization of projects, which makes their delivery process inherently more consistent and expedited.

Expedited Work Processes Improve Workflow

Transportation liaisons also contribute to accelerating project delivery by creating efficient work processes that benefit both the State DOT and the resource agency. This is accomplished in several ways. First, the liaison serves as the single point of contact through which both agencies interface. This is often much faster and reliable than having to coordinate across multiple resource agency staff. Second, as the dedicated staff point of contact for transportation projects, liaisons are able to develop expertise and institutional memory of the State DOT's transportation project delivery process. This can be critical when State DOTs experience staff turnover. Finally, the constant dialogue between the transportation liaison and the State DOT allows for the liaison to quickly shift priorities based on DOT feedback, which further expedites work processes. For example, if a project hits a roadblock due to funding or another non-permitting issue, the State DOT can quickly notify the liaison, and he or she can stop working on that project to focus on another priority. This results in more time being devoted to priority projects. Additionally, transportation liaisons are able to quickly provide additional details or interpretations on permits or comments to State DOT staff without any bureaucratic back and forth.

Dedicated Staff Create Familiarity with the State DOT

Funding a liaison inherently improves the resource agency's familiarity with the State DOT's project delivery process and overall project delivery program. As the liaison is reviewing the State DOT's projects, attending coordination meetings, and interacting with State DOT staff, he or she begins to learn the details of the State's project delivery program. As more projects come

to the liaison for review, he or she can provide deeper insights on best practices the State DOT should continue to do, and roadblocks or other issues to be avoided. One 2019 Study State mentioned that a benefit of their liaison program is the ability for someone with credibility and expertise within the State DOT and the resource agency to prioritize or review a project that may be a high priority. Another State DOT noted that having dedicated staff familiar with the agency's processes has helped deliver projects more quickly and created more assurances in the critical path of project delivery. The increased familiarity of the liaison with the State DOT's program improved the level of service provided. Traditionally, the liaison is located at the resource agency, but liaisons noted in a few instances that they have a desk at the State DOT office for convenience and to allow for face-to-face meetings. However, each liaison emphasized that he or she still represents the resource agency, rather than the State DOT.

Responsiveness and Communication Lead to Enhanced Level of Service

Improved responsiveness from the liaison and increased communication between the State DOT and liaison improve the level of satisfaction with the liaison position. When a liaison is more responsive to the State's questions and requests, the State DOT sees the resource agency's level of service as improved. Many State DOT and liaison interviewees noted they coordinate informally on a daily or weekly basis with their counterparts via phone calls, emails, and even site visits. For example, one State DOT was able to speak directly to the permit writers at a resource agency to ask for their interpretation of a permit as it relates to a specific DOT project. The resource agency was able to answer the project-specific question for the DOT under their liaison arrangement, but they might not have had staff capacity to provide that level of responsiveness without the liaison. In addition to ad-hoc communication, many agreements specify in-person meetings on a quarterly or monthly basis, and most agreements include a requirement for an annual meeting to discuss performance and coordination. Five of the nine State DOTs interviewed noticed more open communication as a result of the liaison position. Whether coordinating formally or informally, the increased frequency of coordination is seen as an improvement in level of service by the State DOT.

Improved relationships also play a large role in responsiveness and communication between the State DOT and liaison point of contact. Four of the nine State DOTs interviewed specifically cited that having a singular point of contact at the resource agency helped improve communication and the level of service. The State DOT knows whom to call when there are questions or issues, and they have a relationship with that point of contact because they work closely together. For example, one State DOT noted that their liaison program has helped strengthen ties between the agencies and adjust the agencies' perspectives so that the resource agency is seen as a strong, collaborative partner instead of solely as a regulator. This can be attributed to the liaison working more closely with the State DOT. Seven of the nine State DOTs interviewed noted that creating the liaison position improved their relationships with the resource agency.

Increased Predictability Reduces Time Frames

Expedited turnaround times, level of service improvements, and improved workflows provide assurances in the project delivery process for State DOTs. Four of the nine State DOTs specifically stated that having liaisons provides consistency and predictability for delivering programs. If a State knows it will receive a fast response from a liaison (e.g., receiving a permit in an average of 45 days) or a programmatic agreement covers routine maintenance work, they can more accurately plan the project development process.

Additionally, States indicated that having a dedicated project reviewer provides additional assurances in the project delivery process. One State DOT stated that, before instituting a liaison program, they sat down with some of their resource agencies and determined they ranked lower on the resource agency's priority list in terms of volume and project complexity than they had thought. Adding the liaison position ensured that staff were dedicated to reviewing the State DOT's projects and could turn the reviews around quickly.

Improved Coordination and Strengthened Relationships Build Trust

Of the nine State DOTs interviewed, all referred to better coordination and stronger relationships with resource agencies as a result of their transportation liaison programs. In traditional transportation project delivery processes, project managers are usually the only ones communicating with the resource agencies and only at specific points throughout the process. Having dedicated transportation liaisons allows for much more open, frequent communication. State DOTs noted that their staff are in contact with liaisons almost daily via e-mail or telephone, and often attend regular in-person meetings together on a monthly basis. Several agreements specifically spell out this responsibility and designate the liaison as the single point of contact between the State DOT and the resource agency. This direct, constant communication with a single point of contact develops trust and allows for stronger relationships. Furthermore, liaisons can provide input on projects earlier in the project development process. This early coordination may not be a measurable benefit at first. As time allows, this effort will demonstrate benefits to improving project delivery later on and will prevent unexpected delays.

Liaison programs can allow for State DOT and resource agency staff to better understand the mission and work processes of the other agency. Various State DOT staff interviewed remarked that since the liaison programs were established, resource agencies no longer question the motives of the State DOT and often see themselves as partners in the process. This change in perspective allows for more collaboration, increased information sharing, and more open feedback. One State DOT manager stated that the liaison program "provides a platform to meet on project issues, program matters, and environmental concerns" and to "constantly engage and provide feedback." By building stronger, more open relationships that allow for straightforward

conversations and constructive feedback, transportation liaisons allow for continual improvements in the transportation project delivery process.

Two States linked the strong relationships developed as a result of the liaison programs to successfully being able to assume NEPA responsibilities. Having existing, strong relationships and agreements in place with resource agencies allows for an easier transition to NEPA Assignment. When issues did arise, agencies were able to collaboratively address them and make the necessary improvements, either through trainings, new agreements, or other process improvements. Some resource agency staff noted that without liaisons in place to focus on State DOT needs, the outcomes of the NEPA Assignment would not have been as positive.

“We treat the [resource] agencies as friends, which has built a huge amount of trust between us. Neither party questions each other’s motives. We are both looking to improve performance and the environment.”
– State DOT interviewee

Programmatic Approaches and Other Opportunities for Collateral Duties

The majority of the liaison agreements reviewed allow for transportation liaison positions to undertake a variety of collateral duties—beyond reviewing transportation projects—that also contribute to accelerating project delivery. Many liaisons deliver trainings to State DOT staff in areas relevant to their agency’s mission. A fewer, but still significant, number of liaisons conduct site visits and field work with State DOT staff. This on-the-ground presence allows any potential issues to be identified and resolved as soon as possible in order to avoid delays. However, the most common and notable secondary duty assigned to transportation liaisons is to develop programmatic approaches. Examples of programmatic approaches include programmatic agreements, programmatic biological opinions, and programmatic biological assessments. Liaisons have also assisted with identifying advance mitigation, and carrying out the NEPA/404 merger process.¹⁶ These examples assist with expediting project delivery overall. A few examples of these approaches, developed in coordination with liaisons, are highlighted below.

- A USACE liaison developed transportation-specific general permits that were not available to the State DOT previously. The number of projects eligible to be covered and reviewed under the general permits has expanded and review times have decreased considerably for eligible projects.
- One USFWS liaison is devoted primarily to improving policy and developing programmatic agreements for ESA Section 7 consultations.

¹⁶ The NEPA/404 merger process uses early and active interagency coordination to focus efforts on reaching an environmentally sound project. “404” refers to Section 404 of the Clean Water Act.

- A USFWS liaison helped negotiate and write a first-of-its-kind programmatic agreement and in-lieu fee program for the Canadian lynx. The agreement covers both Section 7 and Section 10 of the ESA.

Other Direct Benefits to the Resource Agency

Transportation liaison programs provide many benefits to partner resource agencies. All of the resource agencies interviewed stated the liaison program had become business as usual for them, and they would not be able to function at the same level of service without the positions. For many agencies, statutory deadlines would not be met for transportation projects without these dedicated staff. Liaisons allow for more focus on transportation projects to ensure projects are delivered in a timely manner and ecological outcomes are improved. For example, multiple State resource agencies noted that State DOT funding allowed their staff to maintain more thorough, up-to-date databases of species or archaeological resources than they could without liaison funding.

“[Before the liaison position], data was not being updated or distributed quarterly. There was a lot of information coming in that people wanted in the database. [The State] DOT support has been invaluable to the heritage program; the program would not be as complete or as current otherwise.”
 – Resource agency interviewee

Challenges of Liaison Programs and Possible Ways to Address Them

Despite the overall positive impacts of transportation liaison positions, they do present unique challenges that should be considered. Primarily, the challenges can be avoided by proper management and clear communication. While not unique to transportation liaisons, several State DOTs pointed to personality conflicts that resulted in unnecessary tension. Even when liaison programs are functioning smoothly, managers in all agencies need to remain engaged to ensure the continued success and stability of the programs. Throughout interviews with the 2019 Study States, several recommendations and considerations for addressing challenges arose. The States shared these insights based on their experiences in establishing and managing transportation liaison programs. The following summarizes challenges raised by the 2019 Study States and ways they have addressed them.

Stability of Positions and Staff Turnover

The short-term, contract nature of liaison positions was one of the most widely cited challenges among the 2019 Study State DOTs and resource agencies. While most States have transitioned to longer-term agreements, some States or resource agencies have legal requirements and are bound to one- or two-year agreements. Potential liaison applicants may see these short contracts as too risky and choose not to apply. Many agencies noted they are unable to attract a large pool of highly qualified applicants because of this. In a few cases, resource agencies require a break in service at the end of the liaison program agreement. For example, at the end of a four-year

agreement, the liaison is required to take a one-year break in service. This instability can be a major burden on State DOTs.

Addressing the Challenge: Some resource agencies have begun to make the liaison position a permanent, rather than a term, position. This gives the liaison job security knowing that, even if the State DOT no longer funds the position, he or she will be reassigned elsewhere in the agency. Other solutions to attracting high-quality applicants and reducing turnover include ensuring competitive pay and allowing flexibility in work assignments and duty locations.

Since a liaison may be the sole person in his or her role, retaining institutional knowledge can be important for the continuity and long-term success of a liaison program. One State suggested having full-time equivalents (FTEs) divided across liaison staff to increase institutional memory when there is turnover, or to ensure there is someone familiar with the program if a liaison is out of the office. Another best practice for reducing any issues due to staff turnover is to have succession plans or clear standard operating procedures (SOPs) for the liaisons agreed upon by the State DOT and resource agency.

Navigating Performance Issues

Overall, the 2019 Study States had overwhelmingly positive feedback about their transportation liaison programs. However, several shared examples in which a transportation liaison had not met expectations or the requirements of the position. The 2019 Study States terminated liaison positions, or did not renew a liaison program agreement, when the role did not provide a benefit to the State DOT. One agency stated that a liaison provided roadblocks instead of helping the State DOT navigate the permitting process. Another agency noted that the personality of the person serving in the liaison position resulted in termination, and the State DOT decided to phase out the position. In both cases, the State DOTs felt they received the same level of service and did not see a drop in efficiencies after the position was terminated.

The 2019 Study States often used performance measures to monitor and assess liaison activities and justify continuing or ending a position. As State DOT liaison programs have matured, the performance measures in place have evolved. Many 2019 Study States did not initially include performance metrics in their programs, but added them shortly after renewing the first round of liaison agreements. Performance measures have developed over time to become very firm, and have given the State DOTs a way to measure expedited project delivery as well as scan for issues preemptively, particularly if the measures were not met consistently. The State DOTs regularly use the performance measures, or other indicators, to ensure that their liaison programs continue to provide them with the level of service they need.

“Even if the agencies are not meeting the performance measures, the [State] DOT can still show improvements as compared to other agencies or prior to the liaison agreement.”
– State DOT interviewee

Addressing the Challenge: Thoughtfully selecting a potential liaison candidate as well as instituting and continually evaluating quantitative performance metrics for a liaison program can help set a program on the right course. In one example from a State DOT interviewed, staff suggested that, from the project delivery side, each agency should be upfront about the baseline level of service the State DOT is getting. The State DOT staff recommended clearly delineating the additional benefits or services the liaison position will provide. The State DOT should then be able to measure the level of service received once the liaison position is in place to ensure it is worthwhile. A challenge for the State DOT in coming up with performance metrics is to ensure there is some flexibility to meet the changing needs and priorities of the agencies. The State DOT and resource agency should collaboratively agree to performance metrics that point to desired behaviors that ensure the liaison position benefits the State DOT. No matter the type of performance measure, reevaluating and adjusting performance measures as needed over time is a best practice to ensure they continue to help the liaison program operate successfully.

In addition, many agencies included a dispute resolution clause in their liaison agreements to protect the agencies in case it is ever needed. In most cases, the States have not had the need to activate this clause. States often found that improved communication led to resolving issues without the need to elevate them.

Managing Change in Agency Leadership

Several State DOTs and resource agencies noted the challenges associated with changes in agency leadership or administration. New priorities and shifting budgets can pose a threat to liaison positions. This is also true of changes in resource agency leadership.

Addressing the Challenge: Consistent and robust performance reporting can help educate new leadership and justify the continued funding of positions, given that the need still exists. One State DOT noted that, although they receive the same questions regarding the purpose and effectiveness of liaison positions every time the State administration changes, they never worry that the funding will be cut because they have strong performance data that clearly justifies the program's existence.

Clarifying Expectations when Establishing Agreements

Most States pointed to the establishment of liaison positions as the most challenging period of the program. In addition to the coordination and administrative requirements that present challenges, some States did not adequately clarify expectations in the original agreements, which led to confusion and sometimes conflict. Common issues included a lack of detail around which agency is responsible for administrative and overhead costs, retirement and disability costs, and salary approvals. Future agreements were amended to include this information.

The interagency collaboration inherent to liaison positions can create other challenges related to disparate agency work processes. State DOTs noted challenges in working around some resource agencies' policies. For example, some agencies have policies requiring salary parity across staff and were reluctant to give liaisons raises even when the State DOT was willing to pay for it. Other agencies have policies requiring workload parity, which can be difficult to achieve when the liaison is only focused on transportation projects.

Addressing the Challenge: The 2019 Study States recommended allowing sufficient time for developing liaison program agreements and ensuring consensus on expectations. State DOTs and resource agencies require significant lead time to renew or renegotiate the liaison agreement, and to obtain agency leadership signatures on the finalized agreements. Agencies recommended building in additional time to make this happen. Several State DOTs noted that it can take up to a year and a half to agree on the contents and process agreements. This process can take even longer if it is one of the first agreements with an agency. Some State DOTs have even worked to extend the length of the agreements once they function well in order to reduce the administrative burden of renewing them.

Engaging Early with Resource Agencies and Avoiding Conflicts of Interest

An ongoing challenge faced by many State DOTs is understanding the level of information, analysis, and documentation that is available during the planning stage versus what is needed during the environmental review or permitting stage. Resource and regulatory agencies traditionally work in the permitting phase and are accustomed to having more detail. In order for transportation liaisons to have meaningful impacts on accelerating project delivery, they need to be included earlier in the process when there is not as much detail. Furthermore, regulatory agencies are typically hesitant to provide any feedback, even informally, on a project before final determinations have been made. Because State DOTs are funding the liaison positions, this sometimes creates the appearance of a conflict of interest. This can limit open dialogue and the ability for State DOTs to address issues early in project development. While this is a challenge, transportation liaisons can also help overcome this issue. By building trust and a relationship, open dialogue can occur earlier in the process.

“You can’t rely just on the funded agreement. You have to bring the resource agencies into [the development of] guidance and trainings as a partner and have open communication with them. We work hard to highlight commonalities between agency missions and to create a win for both sides.”

– State DOT interviewee

Addressing the Challenge: Resource agencies take different approaches to avoiding potential conflicts of interest. While some liaisons are able to provide responses or issue permits themselves, other agencies either require a supervisor’s approval or do not allow liaisons to draft any language for permits. Several States identified these inconsistencies as challenges and are working to address them by engaging with resource agency leadership. Through close coordination and open communication, the agencies are able to identify potential issues and work through them together so that all parties feel comfortable with the liaison’s role.

Recommendations

State DOTs and resource agencies provided overwhelmingly positive reviews of transportation liaisons because of their contributions to accelerate project delivery through early coordination, dedicated reviews of projects, improved relationships, and by offering predictability to the project delivery process. Transportation liaisons can play a major role in advancing other USDOT priorities, such as PEL and OFD.

Overall, the 2019 Study States found liaisons to be an effective option to prioritize and accelerate project delivery activities. Many of the States’ liaison programs began in response to resolving specific issues, but over time have been integrated into State DOTs’ regular business practices and are seen today as “business as usual.”

Throughout the study interviews, the 2019 Study States shared insights and recommendations for others when considering establishing or managing transportation liaison programs. These recommendations included:

- Monitor liaison program activities to ensure they involve the right agencies and the right number of liaisons and adjust these numbers as needed.
- Utilize longer-term agreements to reduce administrative requirements for the State DOT and resource agency and provide more certainty and stability to a liaison program.
- Ensure positions are permanent with competitive pay and flexible work assignments.
- When looking for liaison candidates, focus on qualities such as strong communication skills, excellent time management and interpersonal skills, and a deep understanding of the State DOT and resource agency’s processes and organizational culture.
- Establish performance measures, or other level of service indicators, to confirm that liaisons contribute to accelerating project delivery.
- Reevaluate performance measures over time to ensure they are working for both agencies.
- Institute robust and consistent performance reporting to monitor effectiveness of the position.
- Ensure projects and priorities are set for the liaison, or that a process to establish projects and priorities is set to ensure they can help expedite project delivery.

- Make open communication a primary focus of the relationship with the State DOT.
- Designate a singular point of contact at the State DOT and resource agency to ensure communication between agencies is seamless.
- Retain institutional knowledge of the liaison program by developing SOPs or dividing FTEs across staff.
- Allow sufficient time for developing liaison program agreements and ensuring consensus on expectations.
- Involve liaisons in other aspects of planning, project development, and training as time allows.

The 2019 Study States also recognized that, while agencies have different missions, the liaison agreement ties them together with the common cause to move projects forward and avoid delays. States and resource agencies have an opportunity to focus on the commonalities between agency missions, and build trust upon those commonalities to create benefits for both agencies. The liaison agreement represents a partnership to further the work of each agency and to pursue opportunities for improved and more efficient project delivery processes.

Appendices

Appendix A: Study Contacts

The table below shows the contacts who supported the study. The FHWA Division points of contact helped identify the appropriate State DOT contacts, but were not contacted for individual calls. Instead, FHWA Division contacts were invited to participate in the State DOT and/or resource agency interviews as their schedules allowed. The table includes the State, participant name, title, agency, and the date of the interview.

The State DOTs that participated in the 2019 Study were:

- California DOT (Caltrans)
- Colorado DOT (CDOT)
- Florida DOT (FDOT)
- Minnesota DOT (MnDOT)
- North Carolina DOT (NCDOT)
- Ohio DOT (ODOT)
- Pennsylvania DOT (PennDOT)
- South Carolina DOT (SCDOT)
- Washington State DOT (WSDOT)

State	Participant Name	Participant Title	Participant Agency	Interview Date
California	Tammy Massenagle	Office Chief, GNEIS (GIS, NEPA Assignment, Environmental Management Systems, Innovation and Staff Development), Division of Environmental Analysis	Caltrans	6/26/18
	Connell Dunning	Transportation Team Supervisor	EPA, Region 9	8/2/18
	Jennifer Gillies	Chief, Office of Biological Studies	Caltrans	6/26/18
	Stephanie Hall	Senior Environmental Protection Specialist, Caltrans Liaison Regulatory Division, Transportation & Special Projects Branch	USACE, Los Angeles District	8/9/18
	Shawn Oliver	Environmental Team Leader	FHWA California Division	N/A
	Shawna Pampinella	Senior Environmental Planner/Contract Manager	Caltrans	6/26/18
	Larry Vinzant	Environmental Specialist	FHWA California Division	N/A
Colorado	Jean Cordova	Water Quality Section Manager	CDOT	9/12/18
	Stephanie Gibson	Environmental Manager	FHWA Colorado Division	N/A
	Jane Hann	Environmental Programs Branch Manager	CDOT	9/12/18

State	Participant Name	Participant Title	Participant Agency	Interview Date
	Alison Michael	CDOT/USFWS Liaison	USFWS, Colorado Field Office	9/19/18
	Tripp Minges	CDOT/CDPHE Liaison	CDPHE	10/3/18
	David Singer	Environmental Policy and Biological Resources Section Manager	CDOT	9/19/18 (participated in USFWS interview)
Florida	Joseph Sullivan	Environmental Specialist	FHWA Florida Division	N/A
	Pete McGilvray	State Environmental Quality and Performance Administrator	FDOT	6/22/18
	David Rydene	Fish Biologist	NOAA/NMFS	7/25/18
	Jennifer Schull	NMFS Liaison	NOAA/NMFS	7/25/18
Minnesota	Scott Bradley	Director, Context Sensitive Solutions; Assistant Director, Office of Environmental Stewardship	MnDOT	9/17/18
	Phil Forst	Environmental Engineer	FHWA Minnesota Division	9/17/18 (participated in MnDOT interview)
	Peter Leete	Transportation Hydrologist	MnDNR	10/9/18
	Benjamin Orne	Transportation Project Manager	USACE, St. Paul District	10/19/18
North Carolina	Donnie Brew	Preconstruction & Environment Engineer	FHWA North Carolina Division	5/7/18 (participated in NCDOT interview)
	Steven Hulsey	Manager, Programs Management Office	NCDOT	5/7/18
	Christopher Militscher	Chief, NEPA Program Office	EPA, Region 4	6/18/18
	Jimmy Travis	Director, Transportation Program Management Unit	NCDOT	5/7/18
Ohio	Karen Hallberg	Fish and Wildlife Biologist (Transportation)	USFWS, Ohio Ecological Services Field Office	10/9/18
	Tim Hill	Administrator, Office of Environmental Services	ODOT	8/27/18
	Lindsey Korfel	Fish and Wildlife Biologist (Transportation)	USFWS	10/9/18
	Noel Mehlo	Planning and Environmental Specialist	FHWA Ohio Division	8/27/18 (participated in ODOT interview)
	Mike Pettegrew	ODOT Program Manager	ODNR	10/5/18

State	Participant Name	Participant Title	Participant Agency	Interview Date
	Lauren Scarberry	Office Manager, Office of Environmental Services	ODOT	8/27/18
Pennsylvania	John Gibble	Lead District Liaison	USACE, Baltimore District	10/12/18
	Kathryn McKelvey	Environmental Planner, Environmental Policy and Development Section, Bureau of Project Delivery	PennDOT	N/A
	Mark Lombard	Highway Administration Program Manager, Environmental Policy and Development Section, Bureau of Project Delivery	PennDOT	9/11/18
	Camille Otto	Environmental Protection Specialist	FHWA Pennsylvania Division	9/11/18 (participated in PennDOT interview)
South Carolina	Jeffrey Belcher	Environmental Protection Specialist	FHWA South Carolina Division	N/A
	Stephen Brumagin	Biologist	USACE, Charleston District	10/22/18
	Sean Connolly	Permitting Division Manager	SCDOT	10/10/18
	Michelle Herrell	Environmental Protection Specialist	FHWA South Carolina Division	N/A
	Chad Long	Director of Environmental Services	SCDOT	10/10/18
Washington	DeeAn (DeeDee) Jones	Joint USFWS-NOAA Liaison	USFWS/NOAA	6/6/18
	Sharon Love	Environmental Program Manager	FHWA Washington Division	N/A
	Sandra Manning	Transportation Policy and Team Lead	USACE	6/18/18
	Michelle Meade	Liaison Program Manager	WSDOT	4/25/18
	Tara Stone	Liaison Program Coordinator	WSDOT	4/25/18

Appendix B: Interview Questions

State DOT Interview Questions

The following questions were used for the interviews held with the State DOTs:

Liaison Program

- *What are the activities for which you rely on a transportation liaison?*
 - i.e., transportation planning, project delivery, training, information gathering, programmatic agreements, project-specific activities?

Agreement

- *What was the initial reason(s) for establishing a liaison position/program?*
 - What is the source of the funds used to support the liaison program (i.e., 139(j) funds, State funds, etc.?) Has this changed over the years?

Program Since 2009

- *How have you been able to justify continued/sustained use of liaison positions?*
 - How has your liaison program evolved since 2009?

Management / Relationships

- *How has the use of transportation liaisons affected (if at all) the working relationship between the State DOT and funded agency as well as project delivery?*

Performance Measures

- *How have performance measures (if at all) impacted the work and/or work direction of the transportation liaison?*
 - Did you include performance measures in the original agreement? In the updated one?
 - Can you share the MOU/MOA or any annual reports that contain performance metrics with us?

Lessons Learned

- *Can you identify any lessons learned, challenges, and opportunities from your experience with funded positions, both internally and with the resource agency?*

Liaison Interview Questions

The following questions were used for the interviews held with the transportation liaisons suggested by the State DOTs:

Liaison Program

- *What are the activities that you perform as a transportation liaison?*
 - i.e., reviewing projects, issuing permits, attending public or interagency meetings, training, information gathering, programmatic agreements, project-specific activities, emergency permitting, visiting project sites, attending project-level meetings at the State DOT, other (please specify)?

Agreement

- *What was the initial reason(s) for establishing a liaison position/program?*
 - Were you (or your predecessor) involved in establishing or renegotiating the liaison agreement?

Program Since 2009

- *How have you been able to accommodate continued/sustained use of liaison positions?*
 - How has your liaison position/program evolved since 2009?

Management / Relationships

- *How has the use of transportation liaisons affected (if at all) the working relationship between your agency and the State DOT as well as project delivery?*

Performance Measures

- *How have performance measures (if at all) impacted your work and/or work direction?*
 - Did you include performance measures in the original agreement? In the updated one?
 - Can you share the MOU/MOA or any annual reports that contain performance metrics with us?

Lessons Learned

- *Can you identify any lessons learned, challenges, and opportunities from your experience as a funded liaison, both internally and with the State DOT?*

Appendix C: Liaison Program Overviews

Caltrans Program Overview

Current Liaison Agreements:

- *Federal*
 - NMFS
 - USACE
 - USEPA
 - USFWS
- *State*
 - California Coastal Commission (CCC)
 - California Department of Fish and Wildlife (CDFW)
 - California Department of Parks and Recreation (DPR), Office of Historic Preservation

Caltrans' liaison program began in 1999, in response to TEA-21 giving States the authority to use title 23 funds to establish staff positions at resource agencies to facilitate the environmental review and permitting processes for transportation projects. Caltrans has liaison agreements with seven State and Federal agencies. The positions are paid for using State funds, and Caltrans spends approximately \$6.5 million per year on its liaison program. Caltrans directs resource agency priorities, but each liaison is managed by staff at his or her own agency. Most agreements are five years in length. All agencies have quarterly meetings with the State DOT, and all have annual meetings to discuss performance. Caltrans' program has evolved over time by adding and tailoring performance measures, as well as developing strong relationships with the resource agencies.

CDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USFWS
 - USFS
- *State*
 - Colorado Department of Public Health and Environment (CDPHE)

CDOT's liaison program arose out of need. The State DOT faced long turn-around times on ESA clearances and had a challenging relationship with the CDPHE. Through its liaison program, CDOT has been able to decrease review times and strengthen relationships. CDOT today has three liaisons: one FTE with USFWS, who processes ESA clearances and supports other wildlife

planning activities; one FTE with CDPHE focused on water quality issues; and a part-time liaison with USFS funded specifically to support the completion of a Programmatic Environmental Impact Statement (EIS) for the I-70 Mountain Corridor and later to handle flood issues that arose in 2015. The USFWS and CDPHE positions have been in place since 2003 and 2013, respectively. All of the agreements are five years in length and use State funds. CDOT manages the CDPHE and USFWS liaison positions, which are considered CDOT staff and housed under CDOT's Environmental Programs branch. CDOT previously had an additional CDPHE liaison focused on hazardous materials clearances, but allowed the position to go vacant after the liaison retired. CDOT uses qualitative performance measures that focus on "keeping each side happy." If CDOT noticed work performance declining, CDOT staff would check in to investigate why and then develop a more quantitative plan of action. Work assignments are largely driven by CDOT; however, CDOT tries to provide liaisons with control over some areas in which they have professional interest and encourage these ideas when appropriate. For example, the USFWS liaison led the development of the first-of-its-kind programmatic agreement for the Canadian lynx in-lieu fee mitigation plan, which addresses ESA Section 7 and Section 10. The USFS funding agreement will expire this year and will not be renewed since the I-70 PEIS received a decision document in 2011 and the flood-related activities requiring USFS involvement have been completed.

FDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USFS
 - USEPA
 - USFWS
 - USACE
 - NMFS
 - U.S. Coast Guard (USCG)
 - National Resources Conservation Service (NRCS)
 - National Park Service (NPS)
- *State*
 - Florida Department of Economic Opportunity (FDEO)
 - Suwannee River Water Management District (SRWMD)
 - Southwest Florida Water Management District (SWFWMD)
 - Northwest Florida Water Management District (NFWWMD)
 - South Florida Water Management District (SFWMD)
 - St. Johns River Water Management District (SJRWMD)
 - Florida Department of Agriculture and Consumer Services (FDACS)
 - Florida Department of Environmental Protection (FDEP)

- Florida Fish and Wildlife Conservation Commission (FWC)
- Department of State – State Historic Protection Officer (DOS-SHPO)

FDOT’s liaison program began in 2004 due to a desire to engage partners earlier in the transportation planning process and accelerate project delivery. FDOT currently has liaisons in 20 State and Federal agencies making up a team of practitioners referred to as the Environmental Technical Advisory Team (ETAT). Not all State and Federal agencies actively participating in the ETAT are funded liaison positions. Several State and Federal agencies are fully engaged and participate on the ETAT without funding from the liaison program. These liaison positions provide expedited project review and technical assistance services as a member of the ETAT supporting the FDOT’s Efficient Transportation Decision Making, the State DOT’s early coordination process to screen projects for environmental considerations in the planning phase and Project Delivery programs (NEPA). The liaison program was established after a 2001 MOU between FDOT and resource agencies establishing the need to accelerate project delivery. Resource agencies have the flexibility to organize their liaisons how they see best to meet FDOT’s needs. FDOT relies on Federal funding to support funded liaisons, and spends approximately \$2 million annually on its liaison program. Agreements are generally for five-year terms, although the length has increased as the program has matured. FDOT is considering shifting to 10-year agreements as a future enhancement to their program. FDOT tracks performance metrics via an electronic tracking tool, and agencies can provide feedback to FDOT via annual surveys.

MnDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USACE
- *State*
 - Minnesota Department of Natural Resources (MnDNR)
 - Minnesota Office of the State Archeologist (MnOSA)

MnDOT established its liaison program in the late 1990s. Prior to establishing the program, there was a lack of predictability in environmental review of MnDOT projects in terms of timeliness, prioritization of MnDOT work, and inconsistency in reviews. MnDOT initially had six part-time liaisons paid for by the Engineering Services Division (three with the MnDNR and three with the Minnesota Pollution Control Agency (MnPCA) and referred to as MnDOT’s DNR and PCA Transportation Teams). While this initial liaison program was considered effective and successful, it was phased out in 2002 in the face of State budget cuts and the need for MnDOT’s Engineering Services Division to lay off a significant number of staff members. Later on in that decade, MNDOT’s Office of Environmental Services, now MnDOTs Office of Environmental

Stewardship (OES) reinitiated a liaison program by funding two full-time embedded State Liaisons, one from MnDNR and one from MnPCA. Over time, MnDOT OES phased out the liaison position with the MnPCA due to lack of need and cost-effectiveness. MnDOT has continued the liaison position with the MnDNR based on need and a high degree of cost-effectiveness and value-added. In the past six years, MnDOT OES and the State Aid Division also added USACE liaison positions to speed up USACE permit review and processing times for MnDOT. One part-time Cultural Resource/Historian liaison position was funded to speed up Section 106 reviews for USACE permitting; one full-time liaison position was funded to speed up USACE aquatic resource related permitting for national and State highway projects; and one half-time liaison position was funded to speed up USACE aquatic resource-related permitting for local State aid highway projects. The part-time USACE Cultural Resource/Historian liaison position that was focused on Section 106 reviews has now been phased out upon retirement of the liaison and current lack of need and permitting backlogs related to Section 106 reviews. MnDOT currently funds one liaison (1 FTE) with MnDNR, two liaisons with the USACE (equivalent of 1.5 FTEs), and one newly added liaison (1 FTE) with the MnOSA. The MnDNR liaison is embedded within MnDOT and has a MnDNR supervisor, but is considered an MnDOT employee in the office. The two USACE liaisons are not embedded within MnDOT, are located at the USACE district office, and are managed by USACE. The MnOSA liaison is not embedded within MnDOT and is located at the OSA. MnDOT funds the liaison positions primarily using State funds. The agreements are typically at least three years in length, and where possible, MnDOT aims for five-year agreements with an option to renew. MnDOT is currently working with the Minnesota Department of Administration to add two additional liaison positions in 2019 with the Minnesota State Historic Preservation Office (MnSHPO), and the Minnesota Indian Affairs Council (MIAC).

NCDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USACE
 - USFWS
 - EPA
- *State*
 - North Carolina Department of Environmental Quality (NCDEQ)
 - North Carolina Department of Natural and Cultural Resources (NCDNCR)
 - North Carolina Wildlife Resources Commission (NCWRC)

NCDOT's liaison program began in the early 1990s in response to increased demand after the passage of a State gas tax in 1985. Currently, there are 31 liaisons across six agencies (NCDEQ, NCDNCR, NCWRC, USACE, USEPA, and USFWS); however, in the past, there have been as

many as 33 liaisons. NCDOT uses all State funds to support the positions, and the average total annual spending for the program is between \$2.5 million and \$3 million. Additionally, NCDOT is in the process of adding several partially funded positions to some agencies. There are performance measures that were added to agreements in 2012 that identify certain tasks the liaisons must complete in certain time frames, which are reported in quarterly reports. The agreements are generally five years in length, and have been updated periodically to include additional information or details.

ODOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USACE
 - USFWS
- *State*
 - Ohio Department of Natural Resources (ODNR)
 - Ohio Environmental Protection Agency (OEPA)
 - Ohio History Connection (OHC)

ODOT has funded liaison positions since 1998, which were created as a response to poor responsiveness and turnaround times from their resource agencies. The SHPO was less than 40 percent on time, and USFWS was 7 percent on time. ODOT has liaison agreements with two Federal agencies, the USACE and USFWS, and three State agencies, ODNR, OEPA, and OHC. The positions were originally funded using both State and Federal funds, changed to using only Federal funds, and today use only State funds. ODOT spends approximately \$1.35 million per fiscal year on the liaison program. ODOT sets priorities at each liaison agency, focusing primarily on deliverable due dates. ODOT does not specify the frequency of meetings in its agreement, preferring the flexibility of stating that the liaisons will meet “regularly” with the DOT. Agreements are two years in length. ODOT has seen their relationships with the resource agency improve over time, including increased trust and the desire to be partners. The funded agencies are now operating at nearly 100 percent on time. Performance measures were developed over time, and focus on assignments and ODOT priorities. ODOT funds a three-person USACE field office in Columbus to ensure dedicated services. Prior to this arrangement, ODOT worked with three USACE Districts which included some offices located out of State.

PennDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USACE

- USFWS
- *State*
 - Pennsylvania Department of Conservation and Natural Resources (DCNR)
 - Pennsylvania Department of Environmental Protection (DEP)
 - Pennsylvania Fish and Boat Commission (PFBC)
 - Pennsylvania Game Commission (PGC)
 - Pennsylvania Historical and Museum Commission (PHMC)

PennDOT's liaison program began in 1995, because the PennDOT bureau director was very involved in the NEPA process and wanted to see improvements. When TEA-21 was passed, PennDOT leadership moved to use funds to establish liaisons very quickly. PennDOT funds 26.5 liaison positions with the DCNR, DEP, PFBC, PGC, PHMC, USACE, and USFWS. The positions are funded using 80 percent Federal funds and 20 percent State funds, and PennDOT spends approximately \$933,071 per year on the program. All agreements are five years in length. PennDOT added performance measures to its agreements in 2010. The measures have helped provide expedited review, and resulted in narrowing the scope of the positions, like not paying for studies that do not directly benefit PennDOT. PennDOT holds annual performance reviews for each of its agencies. PennDOT has a single point of contact that directs the priorities to the liaisons. All requests from PennDOT districts are funneled through this contact. PennDOT believes liaisons are a service they need in order to deliver their project delivery program, and also sees the benefits the funded liaisons bring to the resource agencies.

SCDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USACE
- *State*
 - South Carolina Department of Archives and History (SCDAH)

The liaison program began at SCDOT in 2001 with positions first at State agencies, with a position at USACE added a few years later. Currently, there are five liaisons at two agencies: USACE and SHPO. Previously, SCDOT funded liaison positions at USFWS, South Carolina Department of Natural Resources, and the South Carolina Department of Health and Environmental Control. These positions were terminated primarily because SCDOT determined they were not providing enough of a benefit to warrant the costs; however, they did not see any drop in efficiencies without the positions. Currently, the agreements are five years and supported using Federal funds. In addition to performance measures, SCDOT submits a monthly priority list that determines the liaisons' workload. Annual reports and in-person evaluations are used to assess performance and discuss any issues.

WSDOT Program Overview

Current Liaison Agreements:

- *Federal*
 - USFWS
 - NMFS
 - USFWS and NMFS
 - USACE
- *State*
 - Washington State Department of Ecology (Ecology)

In the late 1990s, WSDOT began funding liaisons for USACE, USFWS, and Ecology at the State level. WSDOT continues liaison positions at these agencies today, funded by State funds. WSDOT uses two-year IPA agreements for its USFWS and NOAA/NMFS positions, and a combination of IPA agreements and MOUs for its USACE and Ecology positions, which have varying term limits. WSDOT currently has eight liaison positions—four ESA liaisons with USFWS and NOAA/NMFS, two regulatory permitting liaisons with USACE, and two Ecology liaisons with Ecology (1.5 FTE). Two of the ESA liaisons serve in joint capacities, performing consultations for both USFWS and NOAA/NMFS, while the other two are dedicated to either USFWS or NOAA. The IPA agreement enables the Federal resource agency to pay for federally mandated training, per diem, and other related costs; however, setting up this type of agreement can be cumbersome. At the end of the initial two-year term for the USFWS agreement, WSDOT can extend it for an additional two years. Prior to the end of the four years, the USFWS liaison must take a 60-day break in service. For the NOAA/NMFS agreements, after four years, the liaison must take a one-year break in service. WSDOT directly supervises the WSDOT-employed staff (the four ESA liaisons and one of the USACE liaisons). WSDOT does not directly manage the three staff employed by Ecology, but manages their workload. WSDOT has a centralized liaison manager and program coordinator who manage the liaison program and coordinate regularly with the liaisons on work assignments and prioritization. WSDOT has continued to evolve its performance measures, and today tracks fewer performance measures, but conducts more data analysis on the measures and the relationship between project delivery and the liaisons' workload.

Appendix D: Liaison Agreements Reviewed

The table below shows the liaison agreements reviewed as part of the 2019 Study. The 2019 Study States provided these agreements for use in the study. The table does not represent the universe of all liaison positions a State DOT may have currently in place, but rather the agreements that were provided and reviewed as part of the study effort. In some cases, the participating State DOTs did not share all agreements but rather provided a sample of agreements for their liaison programs.

Funding Agency	No. of Agreements Reviewed	Agreement Mechanisms	Agencies Funded
California	7	<ul style="list-style-type: none"> • Consulting services agreement (2) 	<ul style="list-style-type: none"> • NMFS • USFWS
		<ul style="list-style-type: none"> • Interagency agreement (3) 	<ul style="list-style-type: none"> • CCC • CDFW • DPR
		<ul style="list-style-type: none"> • MOA (1) 	<ul style="list-style-type: none"> • USACE
		<ul style="list-style-type: none"> • Standard Agreement (1) 	<ul style="list-style-type: none"> • USEPA
Colorado	3	<ul style="list-style-type: none"> • Collection Agreement (1) 	<ul style="list-style-type: none"> • USFS
		<ul style="list-style-type: none"> • MOU (2) 	<ul style="list-style-type: none"> • CDPHE • USFWS
Florida	1	<ul style="list-style-type: none"> • AOFA 	<ul style="list-style-type: none"> • USACE
Minnesota	2	<ul style="list-style-type: none"> • Inter-agency Request for State Agency Services (1) 	<ul style="list-style-type: none"> • MNDNR
		<ul style="list-style-type: none"> • MOA (1) 	<ul style="list-style-type: none"> • USACE
North Carolina	5	<ul style="list-style-type: none"> • Reimbursement Agreement (3) 	<ul style="list-style-type: none"> • NCDEQ • NCDNCR • NCWRC
		<ul style="list-style-type: none"> • Special Reimbursement Agreement (2) 	<ul style="list-style-type: none"> • USACE • USFWS
Ohio	5	<ul style="list-style-type: none"> • Cooperative Agreement (2) 	<ul style="list-style-type: none"> • USACE • USFWS
		<ul style="list-style-type: none"> • MOU (2) 	<ul style="list-style-type: none"> • ODNR • OEPA
		<ul style="list-style-type: none"> • Personal Service Contract (1) 	<ul style="list-style-type: none"> • OHC

Funding Agency	No. of Agreements Reviewed	Agreement Mechanisms	Agencies Funded
Pennsylvania	7	• Interpersonnel MOA (1)	• USACE
		• Intergovernmental Agreement (1)	• USFWS
		• MOU (5)	• DCNR • DEP • PGC • PFBC • PHMC
South Carolina	2	• Agreement (1)	• SCDAH
		• Cooperative Agreement (1)	• USACE
Washington	2	• Assignment Agreement (2)	• NMFS • USFWS
Total	34		

Appendix E: Number of Liaisons in 2019 Study States (2009 and 2019)

The following table represents the number of liaisons in each study State as reported by the State DOT as of January 2019. Numbers in parenthesis represent Full Time Equivalents (FTEs).

State	Number of Liaisons in 2009		Number of Liaisons in 2019	Agencies Involved in 2019
California	<i>Federal</i>	20	19	USACE (4), NMFS (5), USFWS (8) USEPA (2)
	<i>State</i>	11	17.5	CCC (5), CDFW (10), SHPO (2.5)
	TOTAL	31	36.4	
Colorado	<i>Federal</i>	1	1.5	USFS (0.5), USFWS (1)
	<i>State</i>	n/a	1	CDPHE (1)
	TOTAL	n/a	2.5	
Florida ¹⁷	<i>Federal</i>	14.5	18.25	USFS (1.25), USEPA (3), USFWS (4), USACE (4), NMFS (2), <i>USCG</i> (2), <i>NRCS</i> (1), <i>NPS</i> (1),
	<i>State</i>	7.5	9.5	FDEO (1.25), SRWMD (1), SWFWMD (2), NFWFMD (1), SFWMD (2), SJRWMD (2), <i>FDACS</i> (1.25), <i>FDEP</i> (1) FWC (2), DOS-SHPO (3)
	TOTAL	22	34.75 (26.75 funded)	
Minnesota	<i>Federal</i>	n/a	1.5	USACE (1.5)
	<i>State</i>	2	2	MnDNR (1) and MnOSA (1)
	TOTAL	2	3.5	
North Carolina	<i>Federal</i>	7	6	USACE (2), USFWS (3), EPA (1) ¹⁸
	<i>State</i>	20	25	NCDNCR (7), NCDEQ (16), NCWRC (2) ¹⁹
	TOTAL	27	31	
Ohio	<i>Federal</i>	9	5	USACE (3), USFWS (2)
	<i>State</i>	0	5	ODNR (2), OEPA (1), OHC (2)
	TOTAL	9	10	
Pennsylvania	<i>Federal</i>	n/a	5.5	USACE (3.5), USFWS (2)
	<i>State</i>	n/a	21	DCNR (1), DEP (13), PFBC (2), PGC (1), PHMC (4)
	TOTAL	n/a	26.5	
South Carolina	<i>Federal</i>	5	4	USACE (4)

¹⁷ Florida DOT has both funded and unfunded liaison positions. Agencies in italics represent liaisons that are not funded by the DOT. Liaison numbers can be handled by multiple individual resources.

¹⁸ NCDOT is in the process of adding four partially funded USACE liaison positions. The NCDOT's liaison position with the USEPA is also partially funded.

¹⁹ NCDOT has seven liaisons with the NCDNCR—three with the SHPO, three with the Office of State Archaeology, and one with the North Carolina Natural Heritage Program. NCDOT has 16 liaisons with the NCDEQ—three focused on coastal management, and 13 focused on transportation permitting.

State	Number of Liaisons in 2009		Number of Liaisons in 2019	Agencies Involved in 2019
	<i>State</i>	1	1	SCDAH (1)
	TOTAL	6	5	
Washington	<i>Federal</i>	11	6	USFWS (1), NMFS (1), USFWS and NMFS (2) USACE (2)
	<i>State</i>	9	2	Ecology (2)
	TOTAL	20	8	

Appendix F: Length of Liaison Program Agreements in 2019 Study States

The following table shows the lengths of liaison program agreements in the 2019 Study States as of January 2019. The length represents the time period for which an agreement is active before it expires.

Length of Agreement (yrs.)	No. of Agreements	Percentage ²⁰	States
6	2	6%	CA (DPR ²¹), PA (USFWS)
5	22	62%	CA (CCC, CDFW, NMFS, USACE, USEPA, USFWS), CO (CDPHE, USFWS), FL (USACE), MN (USACE), NC (NCDEQ, NCDNCR, NCWRC, USACE, USFWS), PA (DCNR, DEP, PFBC, PGC, PHMC, USACE), SC (SCDAH)
3	2	9%	OH (OEPA), SC (USACE)
2	8	21%	CO (USFS), MN (MnDNR), OH (OHC, ODNR, USFWS, USACE), WA (NMFS, USFWS)
Total	34	100%	

²⁰ Due to rounding, individual rows total slightly above 100 percent.

²¹ The DPR agreement was originally a five-year agreement that has been extended to six years.