

PENNSYLVANIA DATA SHARING FORUM SUMMARY REPORT

Background

The Pennsylvania Division of the Federal Highway Administration (FHWA) contacted the U.S. Institute for Environmental Conflict Resolution (The U.S. Institute)¹ in June of 2007 to request assistance with ongoing data sharing issues among the Pennsylvania Department of Transportation (PennDOT) and natural resource agencies in Pennsylvania. PennDOT uses a variety of natural resource data in its planning and project development processes. The Pennsylvania resource agencies, through the Pennsylvania Natural Heritage Program (PNHP)², collect and manage natural resource data and consult with PennDOT to avoid or mitigate environmental impacts. PennDOT wanted to explore the option of a centralized state-wide database that could help all agencies achieve their goals. PennDOT would also like better access to data on "sensitive species" to enhance transportation planning and project development, but the resource agencies are concerned that increasing access may heighten risks to the species.

The U.S. Institute worked with FHWA to convene a Data Sharing Forum that brought PennDOT and the state and federal resource agencies together to discuss how to better share information³. A Steering Committee of representatives of the affected agencies was formed to help plan the Forum, and the Institute conducted interviews with key personnel at all the relevant agencies to better understand data sharing issues and concerns.

Steering Committee

The Forum Steering Committee was formed in June and expanded subsequently. It was comprised of representatives from each affected state and federal agency:

- **Kelly Heffner**, *Department of Environmental Protection (DEP)*
- **Carol Copeyon, Rick McCoy**, *U.S. Fish and Wildlife Service (USFWS)*
- **John Arway**, *PA Fish and Boat Commission (FBC)*
- **Kevin Mixon**, *PA Game Commission (PGC)*
- **Greg Czarnecki, Ellen Shultzabarger**, *Department of Conservation of Natural Resources (DCNR)*
- **Bob Hannigian, Frank Desendi, Jill Reeder, Jack Rocavek**, *PA Department of Transportation (PennDOT)*

¹ The U.S. Institute is a federal program whose mission is to assist stakeholders in building consensus and resolving conflicts involving public lands, natural resources and the environment. For more information on the Institute, visit www.ecr.gov.

² A partnership among the PA Department of Conservation and Natural Resources, PA Fish and Boat Commission, PA Game Commission, and the Western PA Conservancy to share and manage a natural resource database – PA Natural Diversity Index (PNDI). The U.S. Fish and Wildlife Service is a cooperating agency but not a partner in the Program.

³ The Forum was funded by FHWA through an Interagency Agreement with the U.S. Institute.

- **John Gible**, *U.S. Army Corps of Engineers (USACEO)*
- **Bill Arguto**, *Environmental Protection Agency (EPA)*
- **Jim Knudson**, *Governor's Office*
- **Karyn Vandervoort, Matt Smoker**, *Federal Highway Administration PA Division*
- **Spencer Stevens**, *Ruth Rentch Federal Highway Administration Headquarters*
- **Dale Keyes, Kimberly Caringer**, *U.S. Institute*

Interviews

The Steering Committee's first task was to nominate staff within each agency to be interviewed by the Institute. These interviews would serve to identify the primary issues, the key agency participants and possible solutions or avenues for moving forward, and to explore benefits of a one-day workshop. The Steering Committee members agreed that interviewing two people from each agency, one practitioner and one manager, would provide useful perspectives.

The main issue expressed in the interviews was the need to obtain information (primarily on regulated species) at the desired level of specificity for efficient and effective transportation planning and project development, versus providing the data in a way that protects the species of concern from harm and insures adequate inter-agency consultation. Both sides referred to statutory authority (buttressed by legal tests) and agency policy to justify their positions.

Other findings included that efforts to resolve differences between PennDOT and the resource agencies had been unsuccessful partly due to a lack of follow up from previous meetings on the subject, and partly because the agencies have a low level of trust for each other. Nevertheless, we heard several interviewees express common interests and goals, including serving the public, protecting the environment, and improving the transportation planning process. We also heard that the State's centralized GIS database initiative bears directly on the issue of data sharing among agencies and should be part of the Forum.

Developing the Forum Agenda and Objectives

The Steering Committee met on several occasions via conference call to discuss the primary objectives and the agenda for the Forum. Committee members first worked on a problem statement that would help to characterize "the problem" from the many different viewpoints in a concise manner. The group collaboratively developed:

PennDOT believes it needs better access to natural resource data to enhance its planning and project development processes. The PA resource agencies, through the PA Natural Heritage Program (PNHP), are concerned that increasing access may increase risks to sensitive species. PennDOT believes the development of a centralized state-wide data system may help all agencies achieve their goals.

The group also developed a list of questions that would help characterize the problem, and could be explored at the Forum:

- *What types of data does PennDOT need that it currently cannot get and why does it need the data?*
- *Why is the current PNDI access system (PNHP Environmental Review tool) not meeting PennDOT's needs?*
- *Can the current system be improved to better meet PennDOT's needs and in what ways?*
- *To what extent is the problem due to consultation turn-around times for planning efforts and/or specific projects?*
- *How can turn-around times be reduced without jeopardizing the quality of the consultation?*
- *How can PennDOT enhance consultation process?*
- *Is PNHP getting timely and high quality resource data from PennDOT and would it be affected by improved access for PennDOT to sensitive species data?*
- *Would a centralized database for GIS data in PA (data from federal and state resource and transportation agencies linked on one platform) help solve some of the data-sharing problems? How?*
- *How can PennDOT better prioritize and expedite project planning and implementation, so that the need for repeated environmental reviews can be reduced?*
- *Are there other factors that bear on data access and security that need to be addressed and that could affect a solution?*

The Committee then developed the Forum objectives and agenda.

The Forum

The Forum was hosted by the FHWA PA Division and was held on October 30th, 2007 in Harrisburg, PA at the Radisson Penn Harris Hotel and Convention Center. Participants were:

- **Kelly Heffner**, *Department of Environmental Protection (DEP)*
- **Carol Copeyon, Bob Anderson**, *U.S. Fish and Wildlife Service (USFWS)*
- **John Arway, Chris Urban**, *PA Fish and Boat Commission (FBC)*
- **Bill Capouillez, Kevin Mixon**, *PA Game Commission (PGC)*
- **Greg Czarnecki, Ellen Shultzabarger**, *Department of Conservation of Natural Resources (DCNR)*
- **Bob Hannigian, Jill Reeder**, *PA Department of Transportation (PennDOT)*
- **Bill Arguto**, *Environmental Protection Agency (EPA)*
- **Jim Knudson**, *Governor's Office*
- **Karyn Vandervoort**, *Federal Highway Administration PA Division*

- **Spencer Stevens**, *Federal Highway Administration Headquarters*
- **Jeffrey Wagner, Susan Klugman**, *Western Pennsylvania Conservancy*
- **Dale Keyes, Kimberly Caringer**, *U.S. Institute*

Part One: Overview of the state-wide database initiative and agency missions

Karyn Vandervoort welcomed everyone and participants introduced themselves. Dale Keyes then set out the Forum objectives:

- Better understand current data systems in place and initiatives to consolidate and centralize natural resource data.
- Better understand different agencies needs and uses for natural resource data.
- Explore the benefits and limitations of a centralized data system for Pennsylvania, and how it could help improve access to natural resource data in the transportation planning process while still achieving the resource agencies' mission of protecting sensitive species.

Participants then suggested three additional ones:

- Understand PennDot's needs
- Improve real understanding ("light bulbs")
- Pin down a moving target (changing personnel)

Jim Knudson (*Governor's Office- Deputy CIO for Environmental Community*) started off the morning's series of presentations with the Governor's office initiative to create a state-wide database of natural resource data as well other spatial information that different agencies, planners, and the public could use. This database would merge over 300 different data sets that would include hydrography, infrastructure, elevation data and much more. This database will be capable of housing non-sensitive data that would be available to the public, as well as secure data, that would be protected and shared with only approved agency partners or specific individuals. This system will be accessible via the internet, and will be a separate system from the internal databases that resource agencies already have in place. The Governor's office is currently in the data collection phase of this initiative, and will be bringing on more staff members to get it on-line.

Greg Czarnecki (*DCNR- Director of PA Heritage Program*) gave a brief overview of the PA Heritage Program, including the agency partners and their current data sharing agreements. DCNR houses the PA Natural Diversity Index (PNDI) also known as the Heritage Geographic Inventory System (HGIS). The Western Pennsylvania Conservancy is a primary data-gathering organization for HGIS, but will not share data independently without approval from the PA Heritage Program partners. The PNDI evaluation tool currently processes approximately 45,000 project requests to identify possible conflicts with sensitive species or their habitats. PNDI eliminates approximately 75 percent of projects from requiring additional consultation with specific resource agencies. Agency

partners in the Heritage Program are in the process of improving the geographic resolution of PNDI by developing “conservation planning polygons.” These would more accurately depict where sensitive species are located and thus potentially reduce the number of project “hits” recorded (each hit requires consultation with one or more resource agencies). DCNR estimates that developing the polygons within PNDI will take approximately three years and cost \$1,000,000 in addition to the funds already committed⁴.

John Arway (FBC – *Chief, Division of Environmental Services*) presented the Pennsylvania Fish and Boat Commission’s mission: to protect, conserve, and enhance the Commonwealth’s aquatic resources and provide fishing and boating opportunities. He highlighted the point that the agency recently changed their mission focus back to its longstanding position of “resource first”, including protection of rare and common aquatic and terrestrial species under the Commission’s jurisdictional responsibilities (fish, amphibians and reptiles, and aquatic organisms).

Chris Urban (FBC – *Natural Diversity Section Chief*) gave a presentation on the Pennsylvania Fish and Boat Commission’s rare, threatened, and endangered species program, their review process, data acquisition, and priorities. This included information about the current Threatened and Endangered Species list as well as candidate species for listing (123 species in Pennsylvania). FBC currently has 4 staff members conducting species impact reviews, including two PennDOT-funded positions for PennDOT projects. Most reviews take 1-3 days. Overall, the number of transportation and non-transportation reviews conducted by FBC has increased over 300% in recent years, close to 4,000 in 2006. The FBC is currently developing the conservation planning polygons for species under their jurisdiction. These polygons are being developed in a three phase implementation process that includes first developing the polygons for high-priority species, then developing them for all other species, followed by posting them in the PNDI. The FBC noted that it is responsible for selectively releasing species information, which eliminates the risk of PennDOT misinterpreting the information.

Kevin Mixon (*PGC-Wildlife Biologist II*) presented an overview of the Pennsylvania Game Commission mission and priorities. As discussed by DCNR and the FBC, sensitive species data are highly protected. Presently only eleven PGC staff members have access to bird and mammal data, all of which have signed a PGC confidentiality agreement. The presentation also highlighted that only PGC can make decisions for bird or mammal species under their jurisdiction.

Carol Copeyon (USFWS - *Assistant Supervisor of Endangered Species Section*) discussed the Fish and Wildlife's species jurisdiction (federally threatened and endangered species) and how federal and state jurisdictions sometimes overlap. Although FWS is not formally a partner in the PNHP, it cooperates with the state agencies in the Program. PennDOT has to consult with FWS whenever a federal threatened or endangered species may be affected by a project.

⁴ Funds committed include a \$202,000 State Wildlife Grant from Fish and Boat Commission and Game Commission (received from Fish and Wildlife Service) and \$225,000 in DCNR grants.

Bob Hannigan (*PennDOT - Division Manager*) presented an overview of PennDOT's mission with a particular focus on the new planning and project development process being implemented over the next year. This new process addresses requirements in Sections 6001 and 6002 of SAFTEA-LU as well as guidelines in FHWA's Linking Planning and NEPA initiative. It will integrate preliminary engineering steps into the planning process and create just one process for all projects. Changes from the current system include earlier consideration of environmental issues by Metropolitan Planning Organizations (MPO) and Rural Planning Organizations (RPO) in project planning (review of project needs and screening of preliminary alternatives), field visits (field views) at the scoping stage for projects that are shortlisted, and the removal of agency concurrence points. Rather than signing off at specific points in the project development and review process, as in the past, resource agencies are being asked to get involved earlier and work with PennDOT toward consensus during the length of the planning process.

Part Two: Discussion of problems and solutions

A productive dialogue occurred in the afternoon of the Forum that clarified many of the problems and lead participants to suggest possible solutions for overcoming data-sharing barriers. After hearing the various presentations during Part One, participants were asked to describe their understanding of the key problems:

Problems

- MPOs and RPOs need access to resource data earlier in the transportation planning process.
- PennDOT isn't receiving resource data in a timely manner (consultation process takes too long).
- Not all resource agencies (specifically DCNR) know about and attend the Agency Coordination Meetings (ACMs).
- Descriptions of transportation projects need to be entered in different ways in various databases to get needed environmental data.
- PennDOT still needs access to species-specific data.⁵
- Natural resource agencies would like access to PennDOT's Electronic Construction Management System to obtain information on mitigation options and costs.

⁵ Attempts were made during the Forum to clarify terms used to describe various categories of species data as used by the various agencies. "Listed" or "regulatory" species are threatened and endangered (T&E) species, either under federal or state jurisdiction. "Sensitive" refers to T&E species, candidate T&E species, and species or natural communities of concern under state jurisdiction due to their commercial value or other attributes that place them at risk.

- Natural resource agencies would like access to PennDOT's LET schedules (i.e., schedules to let construction contracts for specific projects).

And for each problem, they were asked to brainstorm a solution:

Solutions

- Revisit timelines in MOUs between PennDOT and resource agencies, and make them consistent with new project development process.
 - 30-day turn around by resource agencies should be the realistic expectation for most reviews.
 - PennDOT will consider building in 30-90 days into the process for species identification with agencies (pre-Environmental and Engineering scoping) to ensure there is an adequate buffer when reviews may take longer than 30 days.
- Provide a PennDOT-funded position to DCNR.
- MPOs/RPOs can already access PNDI/HGIS (add this to MPO/RPO Guidelines for new project planning and development process and subsequent training).
- Consolidate databases so MPOs/RPOs/PennDOT only need to go to one site (this refers to general environmental data and non-sensitive PNDI data).
- Develop a single project description ("geography" or shape file?) that can be used universally for all data sets, including PNDI/HGIS (this would alleviate PNDI's limitations on linear projects).
- Develop and input conservation planning polygons in PNDI (DCNR needs PennDOT funding).
- PennDOT should reference the project tracking number in subsequent correspondence on same project so additional PNDI queries will capture project history; thus improving project review efficiency. This number is assigned to a project at the initial PNDI search request. .
- PennDOT should review DCNR's request for polygon development and position funding and send it to FHWA.
- PennDOT should send notices to DCNR and Western PA Conservancy re: upcoming ACM meetings (next one 12/4/07).
- Resource agencies will identify species at the TIP stage (when project characteristics are known and the project is on the short list).
- PennDOT should check whether ECMS houses comprehensive data on mitigation costs and whether this can be shared with the resource agencies early in project development to help them decide what mitigation is appropriate and of reasonable cost.

Next Steps

Action	Who	Timeline Beginning 11/28/07
Data collection from natural resource agencies on non-sensitive species for the centralized data base	Jim Knudson	12 months
Create a mapping service to consolidate data	Jim Knudson	13 months
1. Evaluate the creation of a new non-species environmental application for the NEPA planning process that would a) consolidate all non-sensitive information in a single application interface and b) assess non-species environmental impacts. 2. Create a new category for Long Range Plans. 3. Create a project spatial representation (geo-shape) that can be used universally to gather information pre-TIP and to be retained for the duration of project.	Jill Reeder & Jim Knudson	12 months
Check & report on funding a PennDOT position at DCNR	Bob Hannigan	1 month
Check & report on funding polygon development	Bob Hannigan	1 month
Send additional information on who is partially funding the polygon development to FHWA (Karyn)	Greg Czarnecki	ASAP
Send invitations to DCNR & Western PA Conservancy for ACM meeting (and make sure all resource agencies are notified)	Bob Hannigan	Begin with the next ACM meeting
Check on extent of ECMS data including costs, plans, and mitigation commitments for project alternatives	Bob Hannigan	1 week
Provide link to PennDOT LET schedules to other agencies	Kelly Heffner	ASAP
Provide LET schedules (including district schedules) to resource agencies	Bob Hannigan	ASAP
Send list of PennDOT's "Top 20" priority projects and open plan schedule to resource agencies	Bob Hannigan	ASAP
Invite resource agencies to field views as part of the pre-TIP review process	Bob Hannigan	Ongoing
Include PNDI/HGIS training as part of the new process training for MPOs/RPOs (can happen at next meeting with the MPOs/RPOs)	Bob Hannigan & Ellen Shultzabarger	Next meeting (2-6 months)
Make suggestions on PNDI improvements; Karyn will meet with PennDOT Environmental Managers to get suggestions in December and discuss with Carol	Karyn Vandervoort/ Carol Copeyon	2 months

Facilitators' Conclusions and Suggestions

We are pleased with the substantial progress made at defining/clarifying the nature of "the data sharing problem" and with developing constructive ideas on resolving different perspectives on the problem. This Forum has served as a beginning for increased communication and cooperation among the affected agencies and has outlined a clear set of action items.

We urge all Forum participants to review the Next Steps Table, especially those who have responsibility for specific items. Logically, FHWA would monitor progress over the next thirteen months. If these steps are completed, substantial progress should be achieved in improving the sharing of natural resource and transportation data. As a result, transportation planning and project development and review should be enhanced leading to better transportation and environmental outcomes.

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