OTEC 2016
Environmental Commitment Challenges
– The Future Is Now

Photo Source: ODNR
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ODOT Project Manager

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Project Environmental Protection Program & Procedure Manager

Samantha Givens, Beaver
Environmental Compliance Specialist
PRESENTATION OVERVIEW

• Project Overview
• P3 Contract Requirements
• Plan Development
• Plan Implementation
• Future of Environmental Commitments
PROJECT OVERVIEW

- Public-Private Partnership (P3)
- Largest ODOT Project
- 4 Year D&C
- 35 Year O&M

Under construction
PROJECT OVERVIEW

- 16 miles, 4-lane divided highway
- Over 20 Million CY of excavation
- High fill embankments (>150’), Rock Cuts (~190’)
- 5 miles of culverts

Photo taken 10/6/2016
P3 CONTRACT REQUIREMENTS

• **Goal of P3 Contract Documents**
  - Provide Clarity of responsibilities for Owner and Developer
  - Transfer Environmental Risk to Developer – D&C and O&M
  - Delegate all ODOT’s environmental obligations, conditions, commitments and responsibilities to Developer

• **Accomplished through Contract and Project Scope Document**
P3 Contract Requirements

- Required Developer to demonstrate compliance

- Risks not transferred:
  - Undisclosed Conditions
    - Regulated Environmental Conditions
    - Archaeological Remains
    - Endangered Species
  - Department-provided Governmental Approvals

Wick Drain Installation
P3 Contract Requirements

Contract Language

• “Developer shall ensure that the Project is constructed and maintained in accordance with all Environmental Commitments, regulations, and applicable Governmental Approvals”. This includes existing, pending, modifications, and amendments.

• “Monitor all commitments and mitigation measures set forth in all Environmental Approvals”
“Design Build Contractor is solely responsible for the payment and performance of the environmental obligations, commitments, and responsibilities….and shall pay fines assessed by any Governmental Entity as the result of the Design Build Contractor’s non-compliance with such environmental obligations, commitments and responsibilities.
Environmental Scope Requirements for D&C and O&M periods

1. Environmental Commitment Tracking System (ECTS)
   System to track environmental commitments throughout the life of the project.

2. Environmental Consultation Management Plan (ECMP)
   Written plan on how compliance for all environmental commitments and governmental approvals would be achieved.

3. Environmental Compliance Specialist (ECS)
   Environmental expert co-located on the project site throughout the duration of construction.
Environmental Commitment Challenge

• The challenge was to take 15 years of documents and condense to understand “all governmental approvals, commitments, and approvals…” to develop the Environmental Commitments for the Project
### Plan Implementation

#### Environmental Commitment List (ECL) Development

- Environmental Permits
- Mitigation
- T & E Species
- Storm Water
- Floodplain
- Hazardous Materials
- Groundwater Protection
- Noise, Dust and Vibration

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#### Table: Environmental Commitment List (ECL) Development

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>14-8</td>
<td>Mitigation</td>
<td>No deviation from the requirements for work in streams, wetlands, and ponds, except in the Commonwealth, may be traded unless a modification has been submitted and approved for the appropriate agencies (e.g., DEP, VCEA, USIC, DEQ, USFWS, and USGS).</td>
<td>No modifications to the requirements for work in streams, wetlands, and ponds, except prior project approval.</td>
<td>Contractor</td>
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<td>Contractor</td>
</tr>
<tr>
<td>14-9</td>
<td>T &amp; E Species</td>
<td>Impact ChangesFP-179 (3.5)</td>
<td>FP-179 (3.5)</td>
<td>FP-179 (3.5)</td>
<td>FP-179 (3.5)</td>
<td>Contractor</td>
</tr>
<tr>
<td>14-10</td>
<td>Storm Water</td>
<td>Impact ChangesFP-179 (3.5)</td>
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<tr>
<td>14-11</td>
<td>Floodplain</td>
<td>Impact ChangesFP-179 (3.5)</td>
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<tr>
<td>14-12</td>
<td>Hazardous Materials</td>
<td>Impact ChangesFP-179 (3.5)</td>
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<tr>
<td>14-13</td>
<td>Groundwater Protection</td>
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<td>14-14</td>
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<td>FP-179 (3.5)</td>
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</tbody>
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#### Diagram: Environmental Commitment List (ECL) Development

- [Diagram of the Environmental Commitment List (ECL) Development process]

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#### Excerpts from the Plan Implementation:

- **Environmental Permits**
- **Mitigation**
- **T & E Species**
- **Storm Water**
- **Floodplain**
- **Hazardous Materials**
- **Groundwater Protection**
- **Noise, Dust and Vibration**
## Plan Implementation

### Environmental Commitment List (ECL) Tracking

<table>
<thead>
<tr>
<th>REFERENCE / Page</th>
<th>Category</th>
<th>COMMITMENT</th>
<th>TIMING</th>
<th>Compliance Measure</th>
<th>Responsibility</th>
<th>STATUS and/or Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-001</td>
<td>NOISE</td>
<td>Structural noise abatement possible at 1 location</td>
<td>See N-006</td>
<td>Designer</td>
<td>Complete and in compliance. See environmental commitment N-006.</td>
<td></td>
</tr>
<tr>
<td>N-006</td>
<td>PPA-Exhibit3/13-9</td>
<td>Noise wall at SR 139 (Portsmouth-Minford Road) shall be constructed</td>
<td>Noise wall to be constructed</td>
<td>Contractor</td>
<td>In compliance. RFI #68 on pattern closed 5/17/16.</td>
<td></td>
</tr>
<tr>
<td>C-004</td>
<td>CULTURAL</td>
<td>In the event of inadvertent discovery of archaeological or cultural resources, including suspected human remains, during construction activities on site,</td>
<td>upon discovery</td>
<td>Contractor</td>
<td>In compliance. This information is included in the training video.</td>
<td></td>
</tr>
<tr>
<td>C-006A</td>
<td>Discovery</td>
<td>If archaeological sites or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact ODOT</td>
<td>upon discovery</td>
<td>Contractor</td>
<td>In compliance. This information is included in the training video.</td>
<td></td>
</tr>
<tr>
<td>E-004</td>
<td>Threatened &amp; Endangered Species (T&amp;E)</td>
<td>Confirm the status of T&amp;E in coordination with the Department prior to any construction annually</td>
<td>Annual in April</td>
<td>Review USFWS T&amp;E list annually (has been completed in April each year)</td>
<td>Contractor</td>
<td>In compliance. Confirmed 04-27-2015 and 4-25-2016.</td>
</tr>
<tr>
<td>E-008</td>
<td>Small Whorled Pogonia</td>
<td>Small Whorled Pogonia surveys will be coordinated with ODNR</td>
<td>Summer 2011 ODOT conducted additional surveys. Not identified.</td>
<td>ODOT</td>
<td>Complete and in Compliance. According to PPA-P2Art1-27/19 Department has relocated this</td>
<td></td>
</tr>
<tr>
<td>E-009</td>
<td>Primrose-leaved Violet</td>
<td>ODOT will attempt to relocate the primrose-leaved violet population</td>
<td>Prior to construction</td>
<td>Relocation completed.</td>
<td>ODOT</td>
<td>Complete and In Compliance. ODOT Interoffice Memo dated 8-6-2014 documenting survey and relocation efforts.</td>
</tr>
</tbody>
</table>
ECMP is used by various team members for:

- Design Considerations
- Compliance Observations
- Clarity of Responsibility
- Review of Environmental Commitment compliance
- How Commitments are Tracked
Plan Implementation

Development of the ECMP

- Ensure the Project Design and Construction meets Environmental Commitments and Government Approvals

- Review, Observe, and Document adherence to Environmental Commitments

- Provide Clarity and Direction
Development of the ECMP

- Minimize disruptions to project work related to Environmental Commitments
- Define Roles & Responsibilities
- Ensure all personnel understand the ECMP
- Continuous Improvement
ECMP – Who

Environmental Compliance Specialist (ECS)

- Full-time
- Co-Located On-site
- Expert in All Areas
- Point of Contact for Questions

Stormwater
Archaeologist
Noise
Air
Remediation Design
Ecologist
Waterway Permitting
NEPA
Wetland Mitigation
Environmental Assessment
ECMP – Who

- Environmental Protection Program & Procedure Manager (EPPPM)
- Environmental Permitting Compliance Specialist (EPCS)
- Wetland and Ecological Compliance Specialist (WECS)
- Cultural Resource Compliance Specialist (CRCS)
- Hazardous Materials Compliance Specialist (HMCS)
- Air and Noise Compliance Specialist (ANCS)
**Monitoring – Daily**

- ECS daily observation for adherence to environmental commitments
- Daily Report & Review
- Tool Box Talks

*Photo Source: ODNR*
ECMP – WHEN & WHERE

Monitoring – Weekly

Weekly Storm Water Inspection Form

• Perimeter Controls
• Inlet Protection
• Construction Seeding and Mulching
• Winter Seeding and Mulching
• Slope Protection
• Ditch Checks and Ditch Protection
• Sediment Basins and Dams

Assortment of BMPs
ECMP – WHEN & WHERE

Monitoring – Monthly

• Storm Water Inspection by SWPPP Designer
• Designer Certification
• Ecologist Observation
• EPPPM Observation

Typical site visit (ODOT, Ohio EPA, USACE)
ECMP – HOW

**Tracking**

- All reports uploaded to electronic file system
- All permits and related documents are saved on the system
- ECL is updated monthly

Seeding success!
PLAN IMPLEMENTATION

Getting Started

• Team is Committed

• Environmental Commitments Identified

• ECMP Plan is Written

• Right People in the Project Roles

Now how to spread the word?
PLAN IMPLEMENTATION

Training Video

- All personnel
- Tracking of Viewing
- Cover all commitments
- Repeatable

NOTICE
Your viewing of this video is being tracked.

Roles and Responsibilities

- Your Role
  - Know Environmental Conditions that may affect your work
  - Meet Environmental Commitments in performing your work
  - Know when to Stop Work
  - Know who to contact

Understanding Environmental Commitments

- Streams and Wetlands
  - Do Not impact (fill, destroy, run over, etc.) beyond what is permitted
  - Look for demarcated areas, including Right-of-Way limits, and do not go past these limits

823 Portsmouth Bypass
An Appalachian Development Highway
Training Successes!

Comment after watching the training video: “So I know what the video said, but you really want us to report every spill?”

“I came in on Saturday to button up the BMPs because I saw that we were going to get a big rain”

“So you mean to say we can’t work in the stream ‘cause the minners are matin’?”

“Sam, there was a snake in the cab of the dozer, just calling to see what we are supposed to do”
**Plan Implementation**

**Delineation of Resources**

- All streams, wetlands, ditches, ponds, water resource buffers, no-build zones, and other identified resources within or adjacent to the ROW that are not authorized for impact shall be demarcated in the field with highly visible material, such as orange fencing, prior to site disturbance.
Plan Implementation

T&E

- In-water Work Restrictions
- Tree Clearing
- Snakes
- Bats

Bat cooler – just in case
Sam finding something to rescue
Plan Implementation

Spills

• Spill Kits

• SPCC Plan

• On-site reporting & removal

Equipment maintenance logs placed in mailbox

Spill kits next to every stream
Plan Implementation

Storm Water

- SWPPP Design
- SWPPP Redlines

Stormwater diversion around nearby pond

Installing silt fence correctly
Plan Implementation

Storm Water

• SWPPP Inspection

A lot to manage!

Making it clear.
**Plan Implementation**

*Storm Water*

- BMP Improvements
- Use of Native seed

[Slope Drains]

[Basin with Skimmer]
Plan Implementation

Storm Water

Impressive TEMPORARY Stream Diversion Channel
THE FUTURE OF ENVIRONMENTAL COMMITMENTS

Awareness & Communication

• Understand Environmental Commitments

• Mindset Shift

• Communicate from Top Managers down to Laborers
**Increased Cost**

- Dedicated/Knowledgeable personnel
- Increased Observations/Reporting
- Additional Control Measures
- Training
THE FUTURE OF ENVIRONMENTAL COMMITMENTS

ODOT’s Perspective

• Compliance Inspections will Increase

• Revisions to CMS Section 107

• Updates to ODOT’s EnviroNet system for Tracking Commitments

• Future Environmental Commitment Manual

Bat Condo
THANK YOU!

Thank you for staying for this last OTEC session –
You Win a Free Puppy!

Sam has rescued over 14 puppies while working on the project – she is your connection for anyone in need of a puppy!

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