ODOT OFF-SITE MITIGATION

- Off-Site Mitigation Requirements
- ODOT Off-Site Mitigation Program
- Off-Site Mitigation Case Studies
- Conclusions / Next Steps
OFF-SITE MITIGATION

WHAT ARE THE REQUIREMENTS?
Off-Site Mitigation Requirements

• Determine the On-Site Treatment Requirements

• Determine How much can be Treated On-Site

• Demonstrate that Full On-Site Treatment is Infeasible
  • Not a Cost / Benefit Assessment

• Ohio EPA Approves Requests for Off-Site Mitigation
  • Late Planning may not be Acceptable Reason
Off-Site Mitigation Requirements

- Demonstrate Available BMPs are not Feasible

- Same HUC-12 Watershed

- Mitigation Ratio of 1.5 Times the WQv or the WQv at the Point of Retrofit

- Maintenance Agreement to Ensure O&M
Watershed Boundaries

HUC-12

HUC-8
ODOT OFF-SITE
MITIGATION PROGRAM
Off-Site Mitigation Program

Three Phases:

1. Interim Fee
   - Short-Term Fee for Projects with Planned ExTs when Removed from ODOT L&D

2. Pilot Study
   - Off-Site Mitigation as Defined in Construction General Permit

3. Long-Term Program
   - Ongoing Program
Off-Site Mitigation Program

Phase 1, Interim Fee:

- ~36 ODOT Projects were nearly Finished with Design when ExTs were Removed from L&D
- OEPA Set a Temporary Dollar Amount
  - Reduce Project Schedule Impacts
  - Funds to be used for Off-Site Mitigation
- ODNR / ODOT Identifying Mitigation Partners
  - Fund Mitigation Projects in the Same Watersheds
Off-Site Mitigation Program

Phase 2, Pilot Study:

- Match Specific ODOT Project to Specific Mitigation Project
- Fees not Defined; Based on Cost of Mitigation
- ODNR / ODOT Identifying Mitigation Partners and Specific Mitigation Projects
Off-Site Mitigation Program

Phase 3, Long-Term Program:

- Data from Phases 1 and 2 Used to Plan for Future ODOT Projects
  - ODOT, OEPA, and ODNR Input
- Methodology for Approving Off-Site Mitigation
- Methodology for Coordinating with Mitigation Partners
- Documented in ODOT L&D Vol. 2
Off-Site Mitigation Case Study: FRA-70-3.41
Phase 1; Interstate 70 in Hilliard, Ohio
Project Summaries

- FRA-40-4.71
  - Project EDA = 14.68 ac
  - Treatment Required = 3.72 ac
  - 280 ft of Exfiltration Trench

- FRA-40-7.00
  - Project EDA = 6.08
  - Treatment Required = 1.23 ac
  - 68 ft of Exfiltration Trench

- FRA-70-3.41
  - Project EDA = 32.50 ac
  - Treatment Required = 6.50 ac
  - 6.54 ac Draining to Vegetated Filter Strip
## Off-Site Mitigation

<table>
<thead>
<tr>
<th>Project</th>
<th>Treatment Required</th>
<th>Treatment Provided</th>
</tr>
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<tbody>
<tr>
<td>FRA-40-4.71</td>
<td>3.72 ac</td>
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<tr>
<td>FRA-40-7.00</td>
<td>1.23 ac</td>
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<td>6.50 ac</td>
<td>6.54 ac</td>
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<tr>
<td><strong>Sum</strong></td>
<td><strong>11.45 ac</strong></td>
<td><strong>6.54 ac</strong></td>
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</table>

- $11.45\text{ ac} - 6.54\text{ ac} = 4.91\text{ ac}$ for Mitigation
- FRA-70-3.41
  - Add Long Bioretention Cells (approx. 6’ x 300’)
  - Tributary Area = 5.32 ac
Off-Site Mitigation: FRA-70-3.41
Bioretention Cells
Keys to Success

• Identifying Opportunities

• Project / District Buy-In

• Coordination with Design Team
  • Early in Design

• Coordination with Ohio EPA
  • Standard Submittal Form
Off-Site Mitigation Case Study: LUC-75

Phase 2; Interstate 75 in Toledo, Ohio
Project Summaries

- **LUC-75-2.75 (Southern)**
  - Project EDA = 39.40 ac
  - Treatment Required = 7.88 ac
  - Vegetated Biofilter and Manufactured Device

- **LUC-75-4.52 (Middle)**
  - Project EDA = 149.69
  - Treatment Required = 32.26 ac
  - Vegetated Biofilter

- **LUC-75-6.70 (Northern)**
  - Project EDA = 64.60 ac
  - Treatment Required = 12.92 ac
  - Vegetated Biofilter
Argument for Mitigation

- Onsite Treatment Possible for LUC-75-2.75
- Man. System would be Deep and Difficult to Construct
- Man. Systems Require Vacuum every 4 – 12 Months
  - At Least 1 Southbound Lane would Close Each Time
  - Expensive and Difficult to Maintain
  - High Likelihood of Insufficient Maintenance
- No Maintenance = Poor Performance

- Opportunity to Over-Treat on Northern Projects
Off-Site Mitigation

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<td>LUC-75-2.75</td>
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<td>LUC-75-4.52</td>
<td>32.26 ac</td>
<td>34.32 ac</td>
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<td>LUC-75-6.70</td>
<td>12.92 ac</td>
<td>15.35 ac</td>
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<tr>
<td>Sum</td>
<td>53.06 ac</td>
<td>53.46 ac</td>
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• Extra Vegetated Biofilter BMPs on Northern Projects
• Avoid Man. System in a Poor Location
• Take Advantage of Treatment Opportunities that make the Most Sense
Keys to Success

• Identifying Opportunities

• Project / District Buy-In

• Coordination with Design Team
  • Early in Design
  • All Three Project Managers

• Coordination with Ohio EPA
  • Standard Submittal Form
Off-Site Mitigation Case Study: DEL-315-0.86

Phase 2; 315 in Delaware, Ohio
Project Summaries

- **DEL-315-0.86 (Part 1, West Side of Road)**
  - Project EDA = 2.28 ac
  - Treatment Required = 0.46 ac
  - Manufactured Device

- **DEL-315-0.86 (Part 2, East Side of Road)**
  - Project EDA = 2.47
  - Treatment Required = 0.49 ac
  - BMP = ?
DEL-315-0.86 (Facing South)
Argument for Mitigation

- No Space on East side of 315
  - Steep Slope and then to Olentangy River
- Man. Systems would Need to be Under Road at Multiple Locations

- Part 1 of the Project has Overtreatment
DEL-315-0.86 (Part 1)

- BMP Tributary Area = 12.42 ac
- 1.94 ac within ODOT R/W
## Off-Site Mitigation

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<tr>
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<td>0.46 ac</td>
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<tr>
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<tr>
<td>DEL-315-0.86</td>
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<td>0.00 ac</td>
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<tr>
<td>Sum</td>
<td>0.95 ac</td>
<td>1.94 ac</td>
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- **Part 1:**
  - BMP Over-Treated due to Siting Limitations
- **Part 2:**
  - Take Advantage of Part 1 Over-Treat
Keys to Success

- Identifying Opportunities
- Project / District Buy-In
- Coordination with Design Team
  - Early in Design
- Coordination with Ohio EPA
  - Standard Submittal Form
Conclusions / Next Steps
Conclusions

- Always Look for Over-Treatment Opportunities
- Planning Needed at High Level
- Planning Needed Early for BMPs
- Ohio EPA is Open to Off-Site Mitigation
- Many Over-Treatment (Mitigation) Opportunities Exist
Next Steps

- ODOT is Exploring Ways to Spend Remaining In-Lieu Fee Money within ODOT R/W

- ODOT is Engaging Planners at District Offices

- Districts May be Open to Providing Mitigation for LPA projects on ODOT R/W.

- If Interested in Off-Site Mitigation on Transportation Project, Contact ODOT Office of Hydraulic Engineering or Jon Prier at ODNR.
QUESTIONS?

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