



## Maumee AOC Advisory Committee

February 11, 2021 9:30am – 11:30am

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### AGENDA

- **Welcome & Meeting/Call Logistics** (Cherie Blair, Ohio EPA) (5 mins)
- **Overview of Meeting & Agenda** (Cherie Blair) (5 mins)
- **Vote: Recommended Voting Members** (5 mins)
- **Vote: Chair & Vice-Chair** (5 mins)
- **Vote: Minutes** (Chair) (5 mins)
- **Update from BUI 3a, 6, 14a Biological Subcommittee** (Josh Miller, USGS) (5 mins)
  - Status of TBD projects
  - Status of Maumee River projects
- **Update on Otter Creek Sediment Removal Project** (Ashley Binion-Zucarro, USACE) (10 mins)
- **US EPA Task Force Leader Report** (Leah Medley, GLNPO) (5 mins)
- **Ohio EPA AOC Coordinator Report** (Cherie) (10 mins)
  - Planned 2021 Field Work
  - Overview update of MAPs
  - AOC Program updates
- **Facilitating Organization's Report** (Kris Patterson, PCS) (10 mins)
  - Financial update
  - Support grant update
  - Update on future activities
- **MAP Spotlight:**
  - Howard Marsh, Phase 2 (Tim Schetter, Metroparks Toledo) (15 mins)
- **Next Meeting** (5 mins)

May 13, 2021 at 9:30am, Teams call
- **Public Comments & Adjourn** (5 mins)



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### MINUTES

Attendance: Cherie Blair, Beth Sparks-Jackson, Regina Collins, Scott Butterworth, Kris Patterson, Jenny Carter-Cornell, Mike Pniewski, Paul Hotz, Lynn Ackerson, Amanda Kovach, Chris Kline, Matt Kovach, Tim Schetter, Ashley Binion-Zuccaro, Amber Bellamy, Ryan Darton, Lead Medley, Sondra Prchlik, Josh Miller, Shawna Towns, Jessica Wilbarger, Sally Gladwell, Deanna Bobak, Melanie Coulter, Archie Lunsey, 2 phone guests

- **Welcome, Meeting/Call Logistics, Overview of Agenda:** Since there are elections today for MAAC leadership, Cherie Blair, Ohio EPA, handled the basic meeting info to get it started.
- **Vote: Recommended Voting Members:** Kris Patterson, Partners for Clean Streams, updated the group on the applications & review process. The review team invites one new applicant to participate as a guest and recommends Sally Gladwell (Business), Tim Schetter (Local Government), and Jenny Carter-Cornell (Business) for MAAC voting membership. The current group of non-expired voting members (5) voted to approve the slate of recommended applicants. Mike P made the motion to accept the slate & Chris K seconded. Motion passed.
- **Vote: Chair & Vice-Chair:** Kris led the discussion of nominations for Chair & Vice Chair. Mike Pniewski & Jenny Carter-Cornell both agreed to another term as Chair & Vice Chair. With no other nominations, the voting member selected Mike & Jenny unanimously. Chris K made the motion, Joey seconded, and motion passed with 7 yes votes.
- **Vote: Minutes:** Mike asked for a vote on the prior minutes. No changes were made. Chris K made the motion, Jenny seconded, and motion passed.
- **Update from BUI 3a, 6, 14a Biological Subcommittee:** Josh Miller, USGS, updated the group on the development of concept plans for potential projects in the mainstem lower Maumee River. Federal partners have reached out to other stakeholders and are beginning discussions. The sub-committee will reconvene soon and discuss the projects in more detail to prepare for recommendations to the MAAC.
- **Update on Otter Creek Sediment Removal Project:** Ashley Binion-Zucarro, USACE, gave a presentation about the Otter Creek sediment removal project that is getting underway soon. There will be a public webinar about the project in March. The GLRI project will remove approximately 57,000 cubic yards of contaminated sediment & confine it in the Army Corps confined disposal facility (CDF) nearby. The dredged material will be piped to the CDF. Every effort is being made not to interfere with boat traffic in the confluence or the bay.
- **Marc Mills, US EPA-ORD, gave a quick update that they** was able to complete collection of samples for the Ottawa River 10-Year Remedy Effectiveness study. Data is expected later this year. Baseline data for the Otter Creek sediment removal project was also collected.
- **Ohio EPA AOC Coordinator Report:** Cherie distributed written updates and briefly reviewed the highlights. Cherie distributed AquaMAP, SedMAP, and WildMAP lists, with updates as of the end of 2020. Five WildMAP projects are



complete. Sediment remediation projects are beginning; Swan Creek and Maumee River data gaps projects (100% federally funded) this year. Funding for all 10 of the AquaMAP projects that was requested was approved by US EPA for this FFY. Four other projects were also approved for upcoming funding for a total of over \$10 million this FFY. 2021 field work by various agencies to support AOC work is still being determined. Some agencies are still working out field plans given COVID restrictions. The Ohio Lake Erie Commission just released an updated website; the Maumee AOC has a new page there.

- **US EPA Task Force Leader Report:** Leah Medley, GLNPO, congratulated the MAAC on meeting the requested deadline for submitting all Management Action Project lists (with the understanding that a few projects will be more fully defined pending other investigations and report results). This made the AOC eligible for consideration of funding this FFY. Chris Kline asked how to keep the rest of the priority projects moving forward. All funding has been allocated and there likely won't be any more for this FFY. US EPA reviewed the requests in detail and had more requests from AOCs than funding allowed. EPA and other agencies will continue to work with the state to fund future projects that are MAPs as funding allows. Nothing else is necessary from the MAAC at this time. Cherie added that there may be other funding sources possible too & partners can still look for funding.
- **Facilitating Organization's Report:** Kris Patterson, PCS: Kris noted that the grant was approximately 35% spent; underspent so far but expect there to be more contractual expenses coming up. Kris is the primary staff now, with Amanda's departure. PCS is increasing the digital outreach during COVID. There will be new website content & social media content. A new annual report is ready. PCS is working with Metroparks Toledo on a paddle opportunity for committee members this summer on the Maumee River to some of the islands we are considering for restoration. Kris invited partners to reach out about highlighting their MAP projects, in various stages, and in providing virtual or in person visits.
- **MAP Spotlight:**  
Howard Marsh, Phase 2 presentation by Tim Schetter, Metroparks Toledo. Tim gave a visual presentation of the upcoming next phase for expanding Howard Marsh, primarily funded through directed AOC dollars as a Management Action Project. The next addition, across a road from the main Marsh, will be converting another 243 acre track of previous farmland to marsh (with some pockets of upland prairie) and deep channels, and including several fish passage structures so that fish can move between the canal (to Lake Erie) and the main marsh. Construction begins this year.
- **Next Meeting** (5 mins)  
May 13, 2021 at 9:30am, Teams call
- **Public Comments & Adjourn** (5 mins)

## Maumee AOC Coordinator Report for the Maumee AOC Advisory Committee February 11, 2021

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- **WildMAPs** (*BUI 14b: Wildlife Habitat*)
  - We have 5 WildMAPs that are complete. Eight more are scheduled to be completed in 2021.
  - An updated Summary Table of the WildMAPs is below.
  - A detailed narrative tracking of the WildMAPs is available upon request.
- **AquaMAPs** (*BUI 3a, 6, 14a: Fish Pops, Benthic Pops, Fish Habitat*)
  - Funding for 10 Top Tier projects (approx. \$8 million) was requested by Ohio for FFY21-Q2. We have not heard if any funding has been awarded for these projects.
  - Many of those Top Tier project implementers have begun developing their grant applications, so they will be ready as soon as the funding becomes available.
  - An updated Summary Table of the AquaMAPs is below.
  - A narrative tracking of the AquaMAPs is available upon request.
- **SedMAPs** (*BUIs vary by project site, GLLA contaminated sediment*)
  - Ohio continues to work with federal partners to make progress on these projects.
    - Ottawa River: 10-Yr Remedy Effectiveness Study was completed this winter by US EPA-ORD and US ACE-Chicago District. Data is expected in the spring/summer.
    - Otter Creek: Remedy and Restoration Baseline Study was completed this winter. Remediation is expected to begin in March/April, and habitat restoration in the fall.
    - Swan Creek: Data Gap sampling is expected this spring by a GLNPO contractor and US EPA-ORD. The sampling plan is being finalized pending the approval of FFY21-Q2 funding. The Focused Feasibility Study is funded and expected to begin once the data gap sampling results are available.
    - Maumee River-Sway Bridge & WWTP: Data Gap sampling is expected this spring by US ACE and US EPA-ORD. The sampling plan is being finalized pending the approve of FFY21-Q2 funding. The Focused Feasibility Study is being negotiated by Ohio EPA and GLNPO. It is expected to begin once the data gap sampling results are available.
  - Ohio is working to secure non-federal cost-share funding to match future project funding needs (*i.e.*, remedial design, remediation) for these contaminated sediment projects through community partnerships, responsible parties, and cost-share projects (*i.e.*, H2Ohio).
  - An updated Summary Table of the SedMAPs is below.
  - A narrative tracking of the SedMAPs is available upon request.
- **Misc. MAPs** (*BUIs 1, 4, 7, 8, 10, 11*)
  - **BUI 1b: Wildlife Consumption** – Ohio EPA expects to begin drafting this BUI removal document this spring.
  - **BUI 4: Deformities & Tumors** – Ohio EPA expects US FWS to sample the bullhead tumors and fish community this spring/summer after the 2020 sampling delay due to COVID.
  - **BUI 7: Dredging** – Ohio EPA and US EPA are working with ACE to finalize a sampling plan within the navigation channel for this summer.
  - **BUI 10a: Beach Closings (advisories)** – The MAAC recommended waterfowl deterrent project has been APPROVED. Funding for the project was requested by Ohio for FFY21-Q2. We have not heard if any funding has been awarded for this project.

- **BUI 8b: Eutrophication** – Ohio EPA is developing a sampling plan to collect water samples for this BUI in the Maumee River and Bay this summer. This sampling activity is still pending approval by Ohio EPA management due to COVID and potential laboratory capacity issues.
- **BUI 11: Aesthetics** – No recent activity, BUI removal pending Otter Creek GLLA project which is scheduled to being in March/April 2021.
- **AOC Program Updates**
  - The Ohio Lake Erie Commission has established a new website that includes a webpage for the Ohio AOC Program (<https://lakeerie.ohio.gov/wps/portal/gov/lec/programs-and-projects/areas-of-concern>). The previous Ohio EPA page provides a link to the new OLEC webpage. Please update any bookmarks or links you may have to the Ohio AOC program.
  - US AOC Conference has been postponed until Sept. 28-30. The details and format have not been finalized. If it is held in person it will be in Muskegon, MI.
  - Congratulations to the Black River AOC for its Aesthetics BUI Removal. It was recognized as the 100<sup>th</sup> BUI removed in the Great Lakes. We are so excited that this milestone was in an Ohio AOC.

# Complete Management Action Project List for Maumee AOC Wildlife Habitat BUI 14b (WildMAPs)

Updated 12/31/20

On 12/14/17 the MAAC approved the projects below for recommendation to Ohio EPA. Ohio EPA endorsed these projects on 1/18/18 and US EPA accepted them on 2/12/18. It is expected that once implemented these projects will achieve the restoration target for BUI 14b: Loss of Wildlife Habitat.

Project ID	Project name (Site name)						
<b>COMPLETED</b>		<b>Project Acreage</b>	<b>AOC GLRI Funding</b>	<b>Other Funding</b>	<b>Implementer</b>	<b>Funding Source</b>	<b>Complete</b>
4-16	Irwin upland site 5 (Griswold property)	20	\$150,000	--	Metroparks	COMPLETE (GLRI via U.S. EPA)	9/18
6-16	Habitat Restoration Plans	0	\$400,000	--	Ohio EPA	COMPLETE (GLRI via U.S. EPA)	3/19
10-16	Irwin wet prairie site 3a (Neyland property)	10	\$97,300	--	Metroparks	COMPLETE (GLRI via U.S. EPA)	3/18
11-16	Irwin wet prairie site 3b	31.8	\$300,000	--	Metroparks	Funded (GLRI via U.S. EPA)	12/20
23a-17	Restoring Coastal Wetlands at Toussaint State Wildlife Area Phase I & II	63	\$600,000	\$888,000	ODNR-Wildlife, TNC, DU	Funded (GLRI via NOAA, GLFWRA, SOGL)	2019
		<b>124.8</b>	<b>\$1,547,300</b>	<b>\$888,000</b>			

<b>FUNDED (In Progress)</b>		<b>Project Acreage</b>	<b>AOC GLRI Funding</b>	<b>Other Funding</b>	<b>Implementer</b>	<b>Funding Source</b>	<b>Estimated Complete</b>
1-16	Magee Marsh State Wildlife Area	1000	\$1,075,000	--	ODNR-Wildlife	Funded (GLRI via U.S. EPA)	6/22
2-16 & 3-16	Toussaint Parcel East and Toussaint Parcel West	203	\$2,297,000	--	DU, U.S. FWS	Funded (GLRI via U.S. FWS)	Fall 2022
7-16	Maumee State Forest site 1 (Carter and Rusin-1 property)	25	\$220,000	--	ODNR-Forestry	Funded (GLRI via U.S. EPA)	4/21
8-16	Maumee State Forest site 2 (Hight wetland & forest property)	75	\$115,000	--	ODNR-Forestry, TNC	Funded (GLRI via U.S. EPA)	4/21
9-16	Maumee State Forest site 3 (Hight upland & flatwoods property)	85	\$95,000	--	ODNR-Forestry, TNC	Funded (GLRI via U.S. EPA)	4/21
13-16	Navarre Unit of Ottawa National Wildlife Refuge	732	\$1,300,000	--	US FWS, DU	Funded (GLRI to U.S. FWS)	2022
14-16	Cedar Point National Wildlife Refuge Pool 2	150	\$850,000	--	US FWS	Funded (GLRI to U.S. FWS)	2021
15-16	Oak Savannah Expansion at Secor Metropark	39.3	\$510,000	--	Metroparks	Funded (GLRI via U.S. EPA)	2022
22-17	Fox Property Restoration Project	35	\$43,840	--	Friends of Ottawa National Wildlife Refuge	Funded (GLRI via U.S. EPA passthru to OEPA)	12/21
23b-17	Restoring Coastal Wetlands at Toussaint State Wildlife Area Phase III	62	\$750,000	--	ODNR-Wildlife, DU	Funded (NOAA Partnership)	Fall 2021
24-17	Penn 7 Wetland Restoration	59	\$2,786,144	--	City of Toledo, GLC	Funded (NOAA Partnership)	2021
25-17	Howard Marsh Phase 2	240	\$4,272,000	--	Metroparks, DU	Funded (NOAA Partnership)	Fall 2022
27-17	Kitty Todd Expansion	310	\$1,400,000	\$3,545,700	TNC	Funded (GLRI via U.S. EPA passthru OEPA, WRRSP)	12/21
28-17	Maumee State Forest Expansion	152	\$1,369,500	--	ODNR-Forestry	Funded (GLRI via U.S. EPA)	7/23
29-17	Maumee Bay State Park Coastal Wetland	137	\$500,000	\$2,000,000	ODNR-Wildlife, Parks	Funded (GLRI via U.S. EPA, H2Ohio)	6/22
		<b>3304.3</b>	<b>\$17,583,484</b>	<b>\$5,545,700</b>			

<b>NEEDS FUNDNG/FUNDING being PROCESSED</b>		<b>Project Acreage</b>	<b>Funding Needed</b>	<b>Other Funding</b>	<b>Proposed Implementer</b>	<b>Funding Status</b>
ALL Projects Funded		0	\$0	\$0		

3429.1 = Total Acres of Recommended MAPs  
 3427.0 = BUI 14b Target Acreage  
 -2.1 = Remaining Acres that Need to be Identified\*

Estimated **Total AOC GLRI Funds** = \$19,130,784    \$6,433,700 = Estimated **Total Non-AOC GLRI Funds**  
 Estimated **Total Cost** = \$25,564,484  
 Estimated **Funding Needed** = \$0

Estimated **Percentage of Non-AOC Funds Leveraged** = 25.2%  
 Estimated **Cost per Acre to Achieve Target\*\*** = \$7,459.73

\* Based on past experience, it is expected that the actual acreage of projects will change slightly as they are implemented. Any remaining acreage needed to achieve the BUI 14b restoration target is expected to be realized through project(s) that have similar objectives to this BUI target, but are funded by non-AOC GLRI sources.

\*\* In NW Ohio in-lieu mitigation costs average \$48,000 per acre and mitigation bank costs average \$35,000 per acre in 2016

**Complete Management Action Project List for Maumee AOC Aquatic BUIs 3a, 6, and 14a (AquaMAPs)**

On 4/30/20 the MAAC approved these projects for recommendation to Ohio EPA. Ohio endorsed these projects on 5/7/20 and US EPA accepted them on 7/29/20. BUI 3b is not impaired. BUI 14b has all mgmt. actions being implemented. Once this list of projects is implemented the Restoration Targets for BUI 3: Degradation of Fish & Wildlife Populations, BUI 6: Degradation of Benthos, and BUI 14: Loss of Fish & Wildlife Habitat is expected to be achieved.

Project ID	Project name (Site name)	Target BUI(s)	AOC GLRI Funding	Other Funding	Implementer	Funding Source	Complete	--
<b>COMPLETED</b>								
			\$0	\$0				

<b>FUNDED (In Progress)</b>		Target BUI(s)	AOC GLRI Funding	Other Funding	Implementer	Funding Source	Estimated Complete	--
			\$0	\$0				

<b>NEEDS FUNDING/FUNDING being PROCESSED</b>		Target BUI(s)	Funding Needed	Other Funding	Proposed Implementer	Proposed Source	Funding Status	Funding Priority
<b>Top Tier</b>								
PD-5.0	Prairie Ditch Restoration at Secor Park: North of Visitor's Center	14a, 6	\$150,000	--	Metroparks Toledo	GLRI via U.S. EPA	Awaiting Allocation	top(1)
PD-6.0	Prairie Ditch Two-Stage and Floodplain Planting: Secor Park Expansion, Phase II	14a, 6	\$160,000	--	Metroparks Toledo	GLRI via U.S. EPA	Awaiting Allocation	top(1)
TuC-17.0	Wetland Enhancement in the Riverine of Turtle Creek (Sharlow) ^	14a, 3a, 6	\$302,325	--	Ottawa SWCD	GLRI via U.S. EPA	Awaiting Allocation	top(2)
HTC-2.0	Headwaters Tenmile Creek Stream & Riparian Restoration^*	6, 14a, 3a	\$505,000	--	Lucas SWCD	GLRI via U.S. EPA	Awaiting Allocation	top(3)
AOC-2.0	Fish and Benthos Improvements with Urban Chloride Reductions (Phase 1)	6, 3a	\$264,261	--	TMACOG	GLRI via U.S. EPA*	Awaiting Allocation	top(4)
SiC-3.0	Restoration of the Ottawa River within Jermain Park*	3a, 6, 14a	\$600,000	--	City of Toledo (TES)	NOAA/GLC Partnership	Awaiting Allocation	top
OC-5.0	Collins Park Municipal Golf Course Stream Restoration	14a, 3a, 6	\$700,000	--	City of Toledo (Parks)	NOAA/GLC Partnership	Awaiting Allocation	top
CeC-6.0	Dry Creek Ecological Design and Demonstration Project	14a, 6, 3a	\$580,000	--	Wood Co. Engineers	GLRI via U.S. EPA	Awaiting Allocation	top
PC-2.0	Packer Creek Stream Restoration near Genoa-State Route 163*	14a	\$3,444,000	--	Ottawa SWCD	GLRI via U.S. EPA	Awaiting Allocation	top
BD-2.0	Stream Restoration at Oregon Recreational Complex*	14a, 6	\$1,344,000	--	City of Oregon	GLRI via U.S. EPA	Awaiting Allocation	top
<b>Tier Two</b>								
LTC-13.0	Connected Wetland and Fish Passage at Camp Sabroske^*	3a, 6, 14a	\$3,000,000	--	U.S. FWS, DU	IA and NOAA/DU Partnership	Awaiting Allocation	1
TuC-18.0	Oxbow Channel Addition & Wetland Enhancement/ Reconnection in the Lacustrary of Turtle Creek (Minier)^ *	14a, 3a, 6	\$3,300,000	--	U.S. FWS, TBD	IA and TBD Passthrough	Awaiting Allocation	2
AC-3.0	Neis Ditch Stream Restoration^?	14a, 6, 3a	\$400,000	--	Metroparks Toledo	GLRI via U.S. EPA	Awaiting Allocation	3
HDOR-9.0	Hill Ditch Restoration at Toledo Natural Science Technology Center*	6, 14a	\$250,000	--	Toledo Public Schools	GLRI via U.S. EPA	Awaiting Allocation	4
PC-6.0	Packer Creek Stream and Riparian Restoration^	14a	\$278,500	--	Ottawa SWCD	GLRI via U.S. EPA	Awaiting Allocation	5
TuC-2.0	Turtle Creek North Nissen Road Restoration^E*	14a, 6, 3a	\$787,000	--	Black Swamp Conservancy	TBD Passthrough	Awaiting Allocation	6
HDOR-13.0	Hill Ditch Restoration at Paisley Park	14a, 6	\$130,000	\$130,000	City of Toledo (Eng. Services)	NOAA/GLC Partnership	Awaiting Allocation	7a
DD-7.0	Detwiler Park Municipal Golf Course Stream Restoration	6, 3a, 14a	\$1,000,000	--	City of Toledo (Parks)	NOAA/GLC Partnership	Awaiting Allocation	7b
HTC-12.2	Stream Restoration at Lathrop Park*	14a, 6	\$450,000	--	Village of Berkey	GLRI U.S. EPA or NOAA/GLC	Awaiting Allocation	8
LTC-1.0	Schiller Stream and Riparian Improvements*	14a, 3a, 6	\$678,000	--	U.S. FWS	GLRI to U.S. FWS	Awaiting Allocation	9
CeC-1.0	Nature Trails Park Riparian Restoration and Wetland Creation*	14a, 6, 3a	\$357,000	--	City of Northwood	GLRI via U.S. EPA	Awaiting Allocation	10
UBC-13.0	Maumee State Forest Blue Creek Stream Restoration*	14a	\$668,000	--	ODNR-Forestry	GLRI via U.S. EPA	Awaiting Allocation	11
CeC-4.0	Waste Management Instream and Riparian Restoration^E	14a, 6, 3a	\$500,000	--	Wood Co. Engineers	GLRI via U.S. EPA	Awaiting Allocation	12
<b>Tier Three</b>								
CrC-5.0	Crane Creek Lacustrary Wetland Restoration	14a, 3a, 6	\$1,500,000	--	U.S. FWS	GLRI to U.S. FWS	Awaiting Allocation	13
OC-3.2	Berlin Avenue Floodplain and Stream Improvements^	14a, 6, 3a	\$557,136	--	City of Oregon	GLRI via U.S. EPA	Awaiting Allocation	14a
OC-3.3	Taylor Rd. and Yarrow St. Floodplain and Stream Improvements^*	14a, 6, 3a	\$690,000	--	City of Oregon	GLRI via U.S. EPA	Awaiting Allocation	14b
LBC-17.1	Blue Creek Restoration at Blue Creek Metropark*	14a	\$550,000	--	Metroparks Toledo	GLRI via U.S. EPA	Awaiting Allocation	15
DC-2.0	Delaware Creek Park Restoration: Phase II	6, 14a	\$500,000	--	City of Toledo (TES)	NOAA/GLC Partnership	Awaiting Allocation	16
HDSC-4.0	UTMC Swan Creek Restoration*	6, 14a	\$508,000	--	University of Toledo	GLRI via U.S. EPA	Awaiting Allocation	17
<b>Pending</b>								
MR-14.0	Restoration Projects in Maumee RMs 15 to 7 (pending - tribal consultation/involvement)	3a, 14a, 6	\$9,000,000	--	TBD	TBD	TBD	TBD
SiC-13.0	Instream and Riparian Projects in the Lacustrary of Ottawa River (pending - sampling results)	3a, 6, 14a	\$3,000,000	--	TBD within 1 yr of data	TBD	TBD	TBD
			<b>\$36,153,222</b>	<b>\$130,000</b>				

<b>NO GLRI-AOC (FA1) FUNDING REQUIRED, ALREADY FUNDED</b>		Target BUI(s)	AOC GLRI Funding	Other Funding	Implementer	Funding Source	Complete	Funded
varies	20 already funded Aquatic Biological MAPs	3, 6, 14a	--	\$16,144,139	varies	varies	6	all
			<b>\$0</b>	<b>\$16,144,139</b>				

^ = acquisition

^E = acquisition or easement

\* = concept plan

Estimated **Total AOC GLRI Funds** = \$36,153,222 + \$16,274,139 = Estimated **Total Non-AOC GLRI Funds**

Estimated **Total Cost** = \$52,427,361

Estimated **Funding Needed** = \$36,153,222

Estimated **Percentage of Non-AOC Funds Leveraged** = 31.0%



**Complete Maumee AOC Management Action Project List for Contaminated Sediments (SedMAPs)**

Updated 12/31/20

On 6/11/20 the MAAC approved these projects for recommendation to Ohio EPA. Ohio endorsed these projects on 6/29/20 and US EPA accepted them on 7/29/2020. These projects will address a variety of BUIs as listed with each project. These projects will lead to the direct removal of some BUIs, but other BUIs will require additional management actions as defined in those BUI-specific management action lists. Below is an explanation of the BUI numbering.

BUI	Site	Lead Agency	Task/Description	Funding Status	Estimated Total Cost	Anticipated FFY
1,3,4,6,14	Ottawa River <i>(Reaches 1 - 4 area)</i>	US ACE/ORD (for GLNPO)	Remedy Confirmation Study - Reach 1	Complete	\$446,723	19
			Remedy Effectiveness Study - Reach 2-4	Complete	\$1,100,000	20
			Decision document	In Progress	-	20
3,4,6,14	Halfway, Silver, Shantee Creeks	Ohio EPA	Field verification of conditions	Complete	-	20
			Decision document	In Progress	-	21
6,14	Swan Creek (RM 4-0) <i>(Phase 1 &amp; 2 area)</i>	GLNPO	SLERA	Complete	-	19
			Data Gap Investigation	In Progress	\$600,000	20
			Feasibility Study	Funded	\$200,000	21
			Remedial Design	Pending	tbd	22
			Remedial Action/Construction	Pending	\$18,500,000	23
			Remedy Effectiveness Study	Pending	tbd	28
3,4,6,14	Maumee River - Upstream <i>(Phase 1 area)</i>	US ACE (for GLNPO)	SLERA	Complete	-	20
			Decision document	In Progress	-	20
3,4,6,7,14	Maumee River - Sway Bridge <i>(within Phase 2 area)</i>	US ACE (for GLNPO)	SLERA	Complete	-	20
			Data Gap Investigation	In Progress	\$700,000	21
			Feasibility Study	Pending	tbd	22
			Remedial Design	Pending	tbd	23
			Remedial Action/Construction	Pending	\$19,250,000	24
			Remedy Effectiveness Study	Pending	tbd	29
3,4,6,14	Maumee River - WWTP <i>(within Phase 2 area)</i>	US ACE (for GLNPO)	SLERA	Complete	-	20
			Data Gap Investigation	In Progress	\$600,000	21
			Feasibility Study	Pending	tbd	22
			Remedial Design	Pending	tbd	23
			Remedial Action/Construction	Pending	\$33,250,000	24
			Remedy Effectiveness Study	Pending	tbd	29
3,4,6,11,14	Otter Creek	US ACE (for GLNPO)	Remedial Design	Complete	\$2,000,000	20
			Remedy/Restoration Baseline Study	In Progress	tbd	20
			Remedial Action/Construction	In Progress	\$10,000,000	21
			Remedy Effectiveness Study	Pending	tbd	26
			Restoration Effectiveness Study	Pending	tbd	26
3,4,6,14	Duck Creek	GLNPO	SLERA	Complete	-	19
			Decision document (NFA)	Complete	-	19

\$86,646,723

**Beneficial Use Impairments**

BUI 1:	Restrictions on Fish & Wildlife Consumption
BUI 2:	Tainting of Fish and Wildlife Flavor
BUI 3:	Degradation of Fish & Wildlife Populations
BUI 4:	Fish Tumors or Other Deformities
BUI 5:	Bird or Animal Deformities or Reproductive Problems
BUI 6:	Degradation of Benthos
BUI 7:	Restrictions on Dredging Activities
BUI 8:	Eutrophication or Undesirable Algae
BUI 9:	Restrictions on Drinking Water Consumption or Taste & Odor Problems
BUI 10:	Beach Closings (Recreational Contact)
BUI 11:	Degradation of Aesthetics
BUI 12:	Added Costs to Agriculture or Industry
BUI 13:	Degradation of Phytoplankton and Zooplankton Populations
BUI 14:	Loss of Fish & Wildlife Habitat





# Howard Marsh Metropark

## Phase 2 Park Development



# Howard Marsh Metropark: Acquisition Overview

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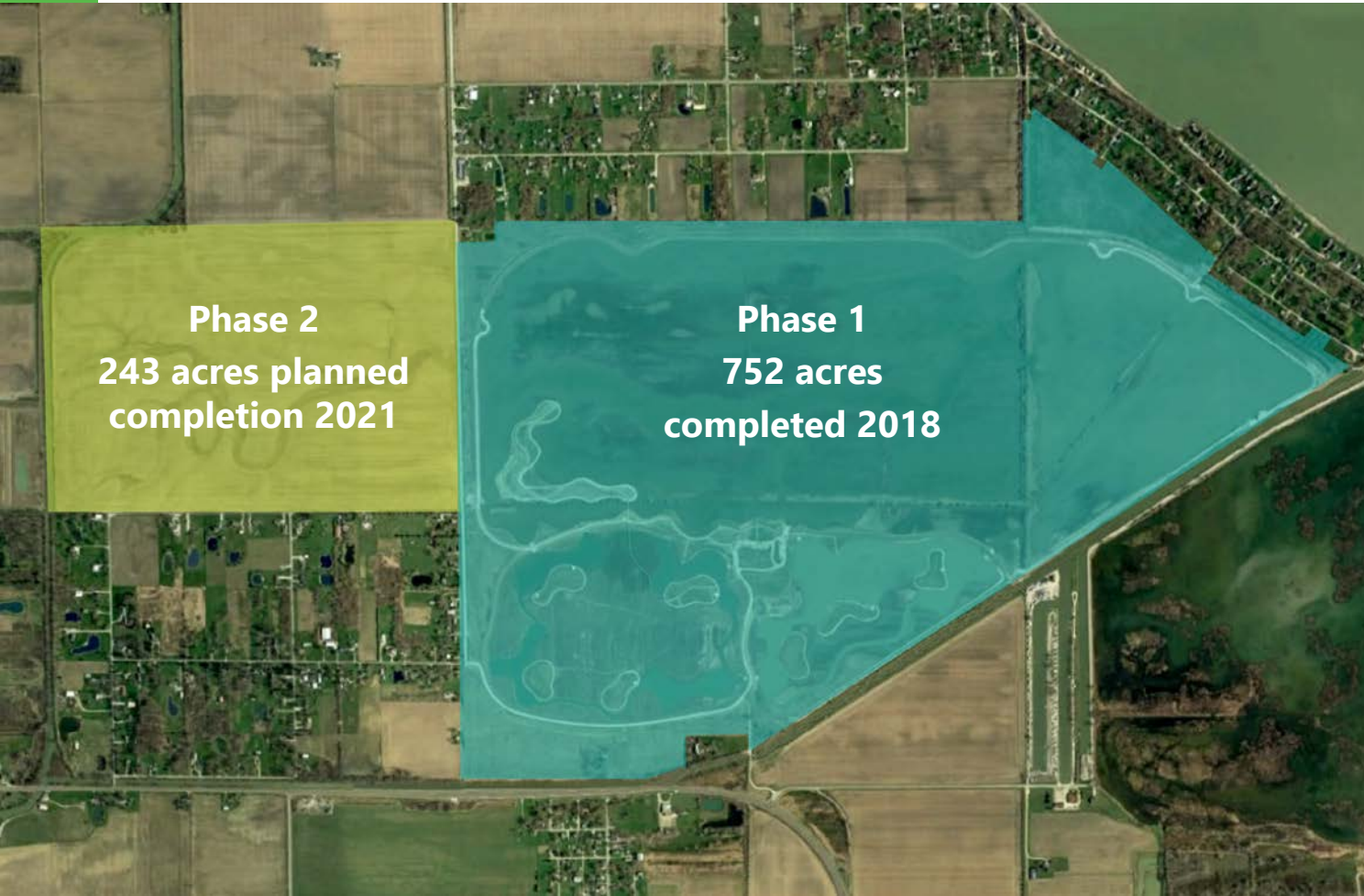
987-acre farm purchased by Metroparks in 2008 (current size: 995 acres)

<b>Ohio Division of Wildlife</b>	<b>\$3.0 million</b>
<b>Clean Ohio Fund</b>	<b>\$1.8 million</b>
<b><u>Metroparks Toledo Land Levy</u></b>	<b><u>\$1.2 million</u></b>
<b>Total Cost</b>	<b>\$6.0 million</b>





# Howard Marsh Metropark: Park Development Overview



**Phase 2**  
243 acres planned  
completion 2021

**Phase 1**  
752 acres  
completed 2018

## Project Emphasis

- Water Quality
- Habitat
- Visitor Engagement



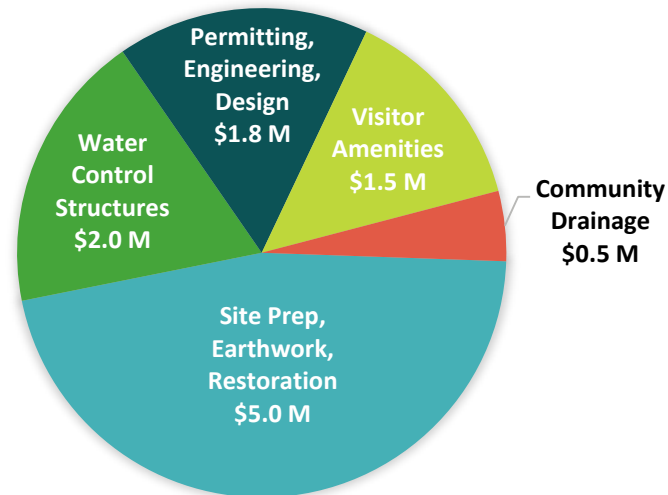


# Howard Marsh: Phase 1 Park Development Overview

**Design, Engineering, Permitting:** May 2013 – May 2016  
**Construction:** June 2016 – March 2018

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<b>Metroparks Toledo</b>	\$ 4.0 million
<b>Ohio Division of Wildlife</b>	\$ 4.0 million
<b>NOAA</b>	<u>\$ 2.8 million</u>
<b>Total Cost</b>	<b>\$10.8 million</b>



**METROPARKS  
TOLEDO**



**SMITHGROUP**



**DUCKS  
UNLIMITED**



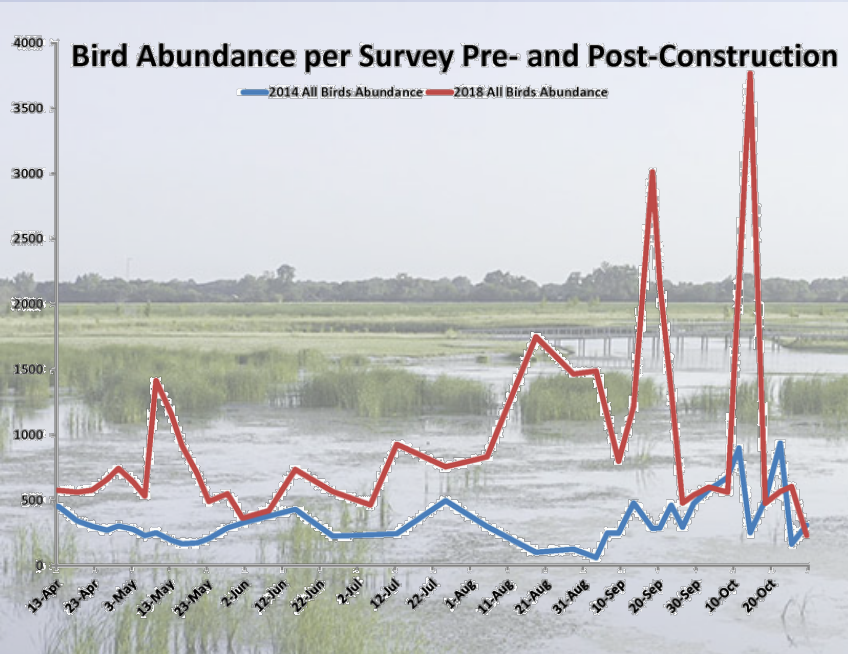
# Howard Marsh Metropark Phase 1: Water Quality Benefits



- 750 acres of agricultural land draining into Lake Erie removed
- 400 acres of residential stormwater captured
- Hydrologic connection to Lake Erie for continued nutrient uptake



# Howard Marsh Metropark Phase 1: Habitat Benefits



- 571 acres of coastal wetland & aquatic habitat restored
- 116 acres of upland forest planted
- 235 bird species documented since park opened in spring 2018
- Blanding's Turtles (Threatened in Ohio) documented in 2019
- 75 Common Tern (Endangered in Ohio) chicks fledged on nesting platforms in 2020







# Howard Marsh Metropark Phase 1: Visitor Engagement



- 6.6 miles of new multiuse trails & accessible boardwalks
- Over 6 miles of accessible blueways
- Accessible kayak launch & kayak share locker
- Waterfowl hunting & fishing opportunities

## Programs/Events

## Park Visitors

2018	10 (2,444 people)	59,268 (19,024 during May bird migration)
2019	15 (274 people)	91,273 (26,584 during May bird migration)
2020	18 (39 people)	76,442 (14,442 during May bird migration)





# Howard Marsh Metropark Phase 2: Park Development Overview

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## Design, Engineering, Permitting:

November 2018 – March 2021

NOAA

\$211,060

Ducks Unlimited

\$ 24,416

Total

\$235,476

## Construction:

April 2021 – November 2021

NOAA (wetland restoration & permitting)

\$3,911,487 grant award to Ducks Unlimited\*

Clean Ohio Fund (public access improvements)

TBD

\*contract for construction awarded to Haynes Construction for \$2,487,150 (+10% contingency)

Hull & Associates selected for construction engineering oversight



# Howard Marsh Metropark Phase 2: Park Development Overview

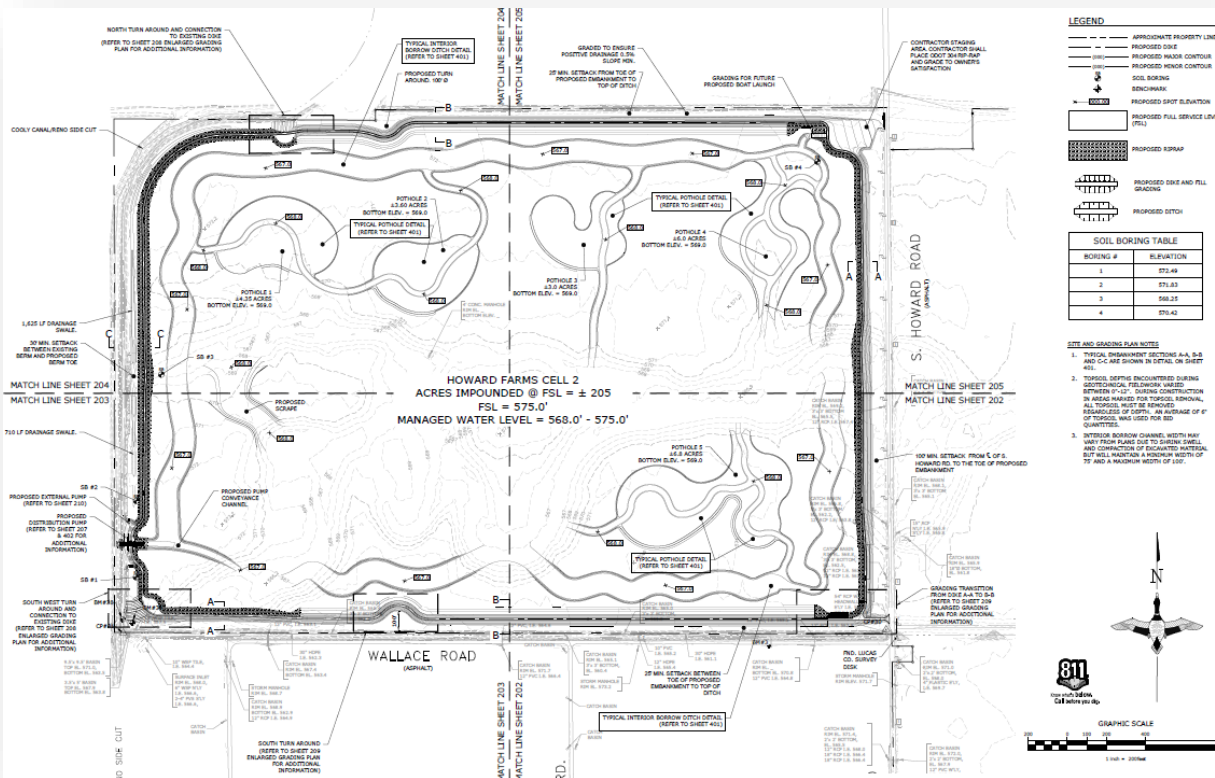


## Current Condition

- 243 acres currently in agriculture
- Hydrologic connection to Lake Erie via Coolie Canal
- Contains former Cedar Creek channel



# Howard Marsh Metropark Phase 2: Park Development Overview



- 203 acres of coastal wetland & aquatic habitat to be restored
- 25 acres of upland prairie to be planted around perimeter
- Over 4 miles of navigable deep water channels
- Water control & fish passage structure connected to Lake Erie
- 2.3 mile multiuse perimeter trail
- Additional recreational improvements planned



# Howard Marsh Metropark Phase 2: Visitor Engagement



## Philosophy for activation

Since Howard Marsh is a prime example of coastal wetland restoration, programs that take place at Howard feature educational messaging on wetland restoration, wetland management, habitat restoration and their importance to migratory pathways and safe recreation.

## Examples of Proposed Programs:

- Boat and Bird (Kayaking and Birding)
- Marsh Madness
- Howard Marsh Eco-Tour
- Fitness Night Hike
- Stargazing
- 3 Mile sunset and Night Hike
- Sunrise Over the Marsh



A long wooden walkway with wire mesh railings extends from the left side of the frame over a body of water. The walkway is supported by wooden posts. In the distance, a sign on a tall post reads "WATERFOWL RESTAURANT". The sun is setting on the horizon, creating a warm orange glow. The water reflects the sky and the walkway. The overall scene is peaceful and scenic.

**QUESTIONS?**