

# Community-Based Beneficial Use for Sea Level Rise

## A CO-BENEFITS STRATEGY FOR DREDGED MATERIAL MANAGEMENT

WEDA 2019 | Chicago, IL

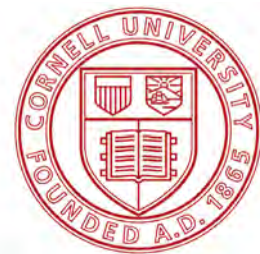
Isaac Hametz

Principal/Research Director

**MAHAN RYKIEL**  
ASSOCIATES INC

Brian Davis

Assistant Professor







**I. Sea Level Rise & Sediment Management: Baltimore**

**II. Community Context: Turner Station**

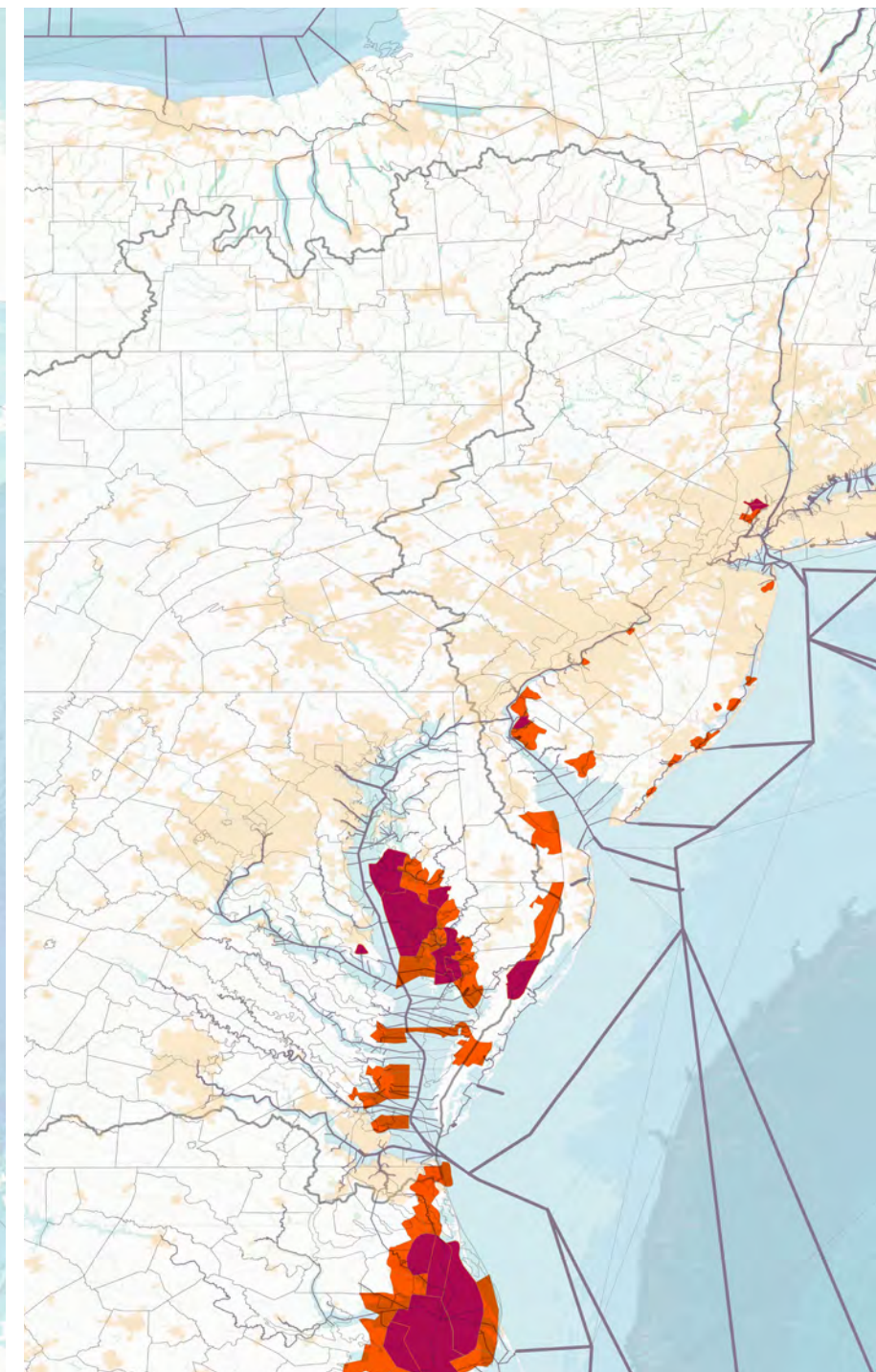
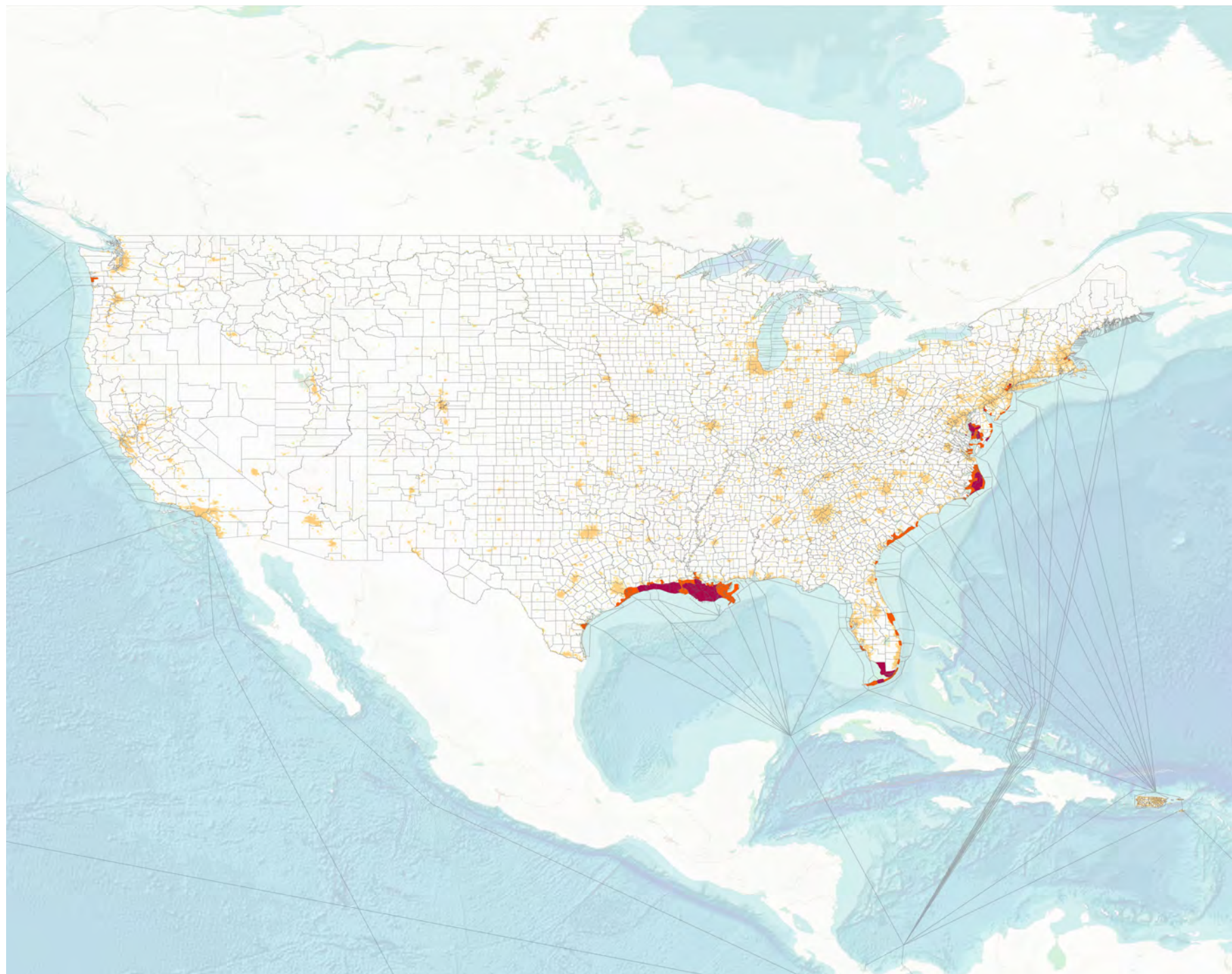
**III. Design Process: Fleming Park**



**I. Sea Level Rise & Sediment Management: Baltimore**

II. Community Context: Turner Station


III. Design Process: Fleming Park




**Legend**

 urban space

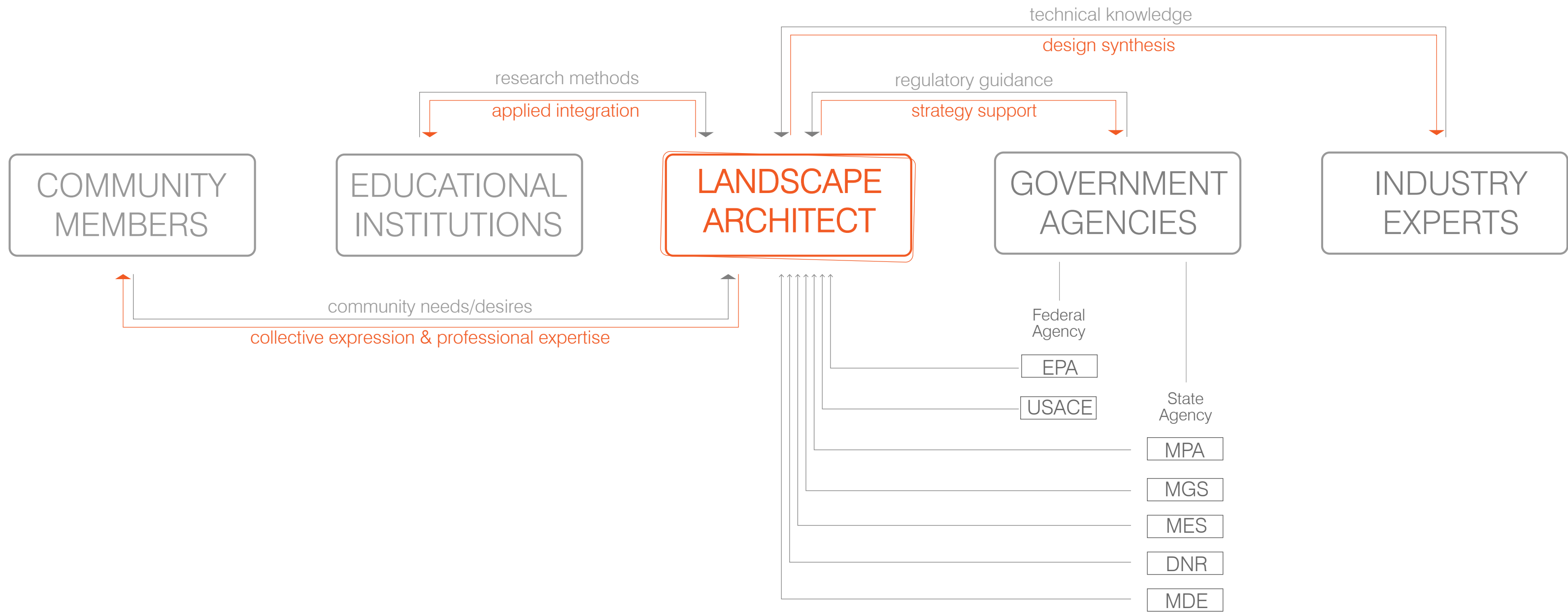
Extent of Chronic Inundated in Communities, 2060

 >10% inundated

 >50% inundated

Source: Union of Concerned Scientists, 2017. "When rising seas hit home". Figure 7. Extent of Chronic Inundated in Communities, 2060, Intermediate Scenario.







## VOLUME

The total volume of dredged material in innovative reuse and beneficial use projects varies. Volumes can range from as little as 5,000 cubic yards in small scale thin layer placement projects to upwards of 40 million cubic yards in large-scale restoration projects like Poplar Island.



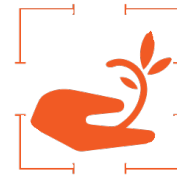
## STAKEHOLDERS

Committed stakeholders help advance innovative reuse and beneficial use projects in direct and indirect ways. Among the ways that stakeholders support projects are through advocacy, funding, outreach, and implementation.



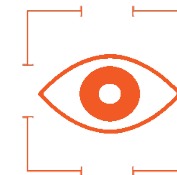
## SOCIAL VALUE

Social justice issues are explicitly and/or implicitly part of every innovative reuse and beneficial use project. Among the social benefits that can be provided by projects are access to open space, flood risk reduction, pollution abatement, and equitable development.



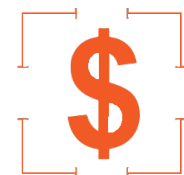
## ECOLOGICAL VALUE

Ecosystems are modified during innovative reuse and beneficial use projects. These modifications can be designed to maximize targeted ecological functions including but not limited to habitat creation, nutrient cycling, biodiversity preservation, and carbon sequestration.



## VISIBILITY

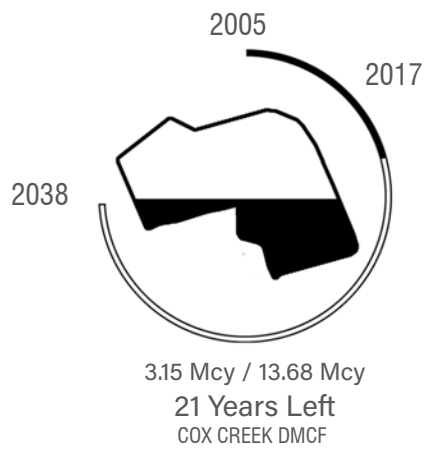
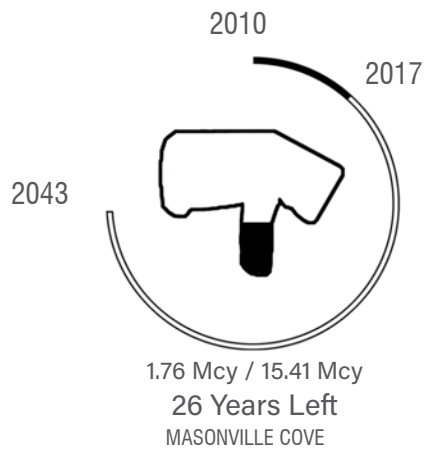
Many innovative reuse and beneficial use projects are not publicly visible. However, increased visibility ensures greater oversight, transparency, and strengthens stakeholder engagement.

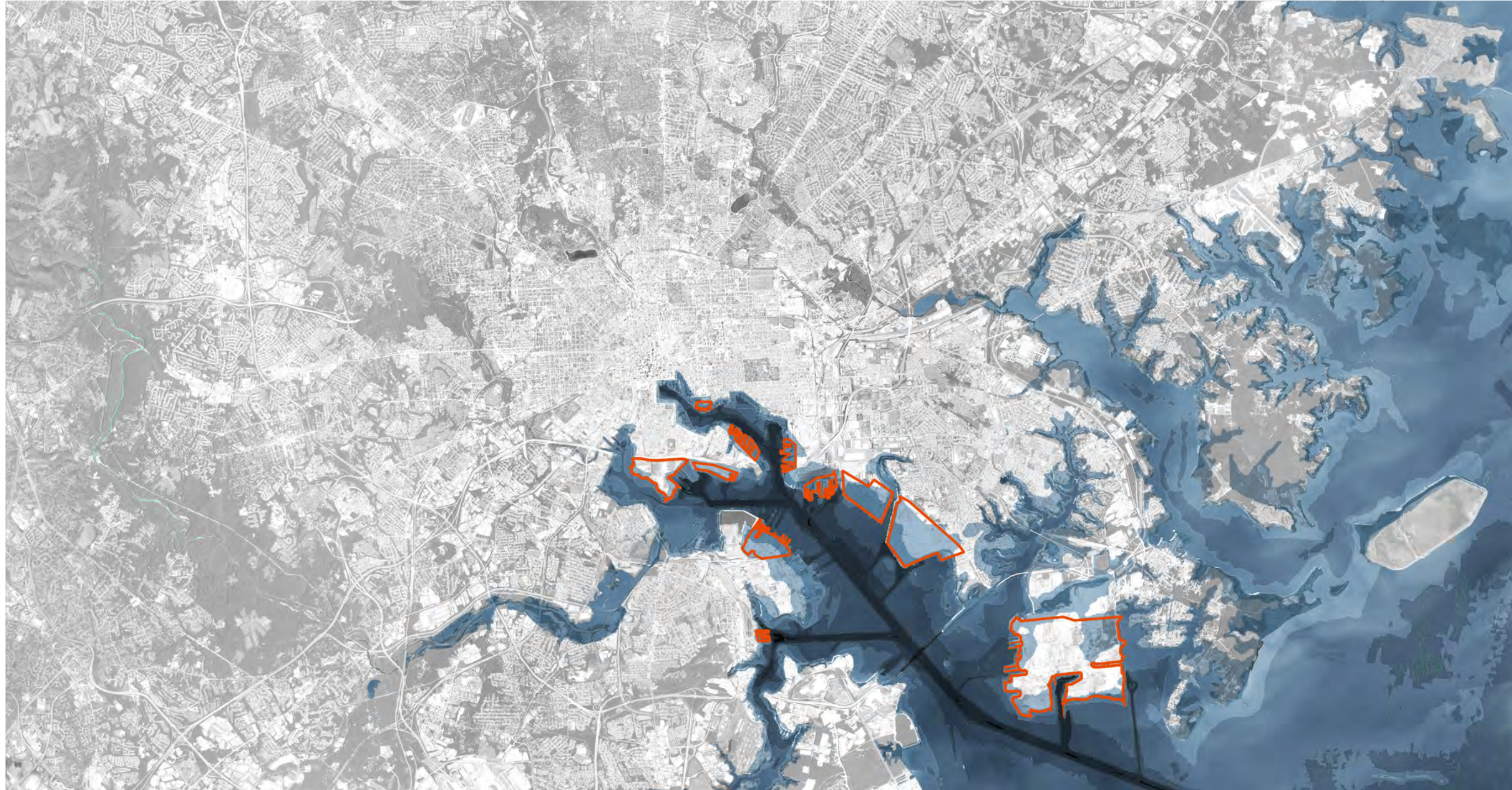


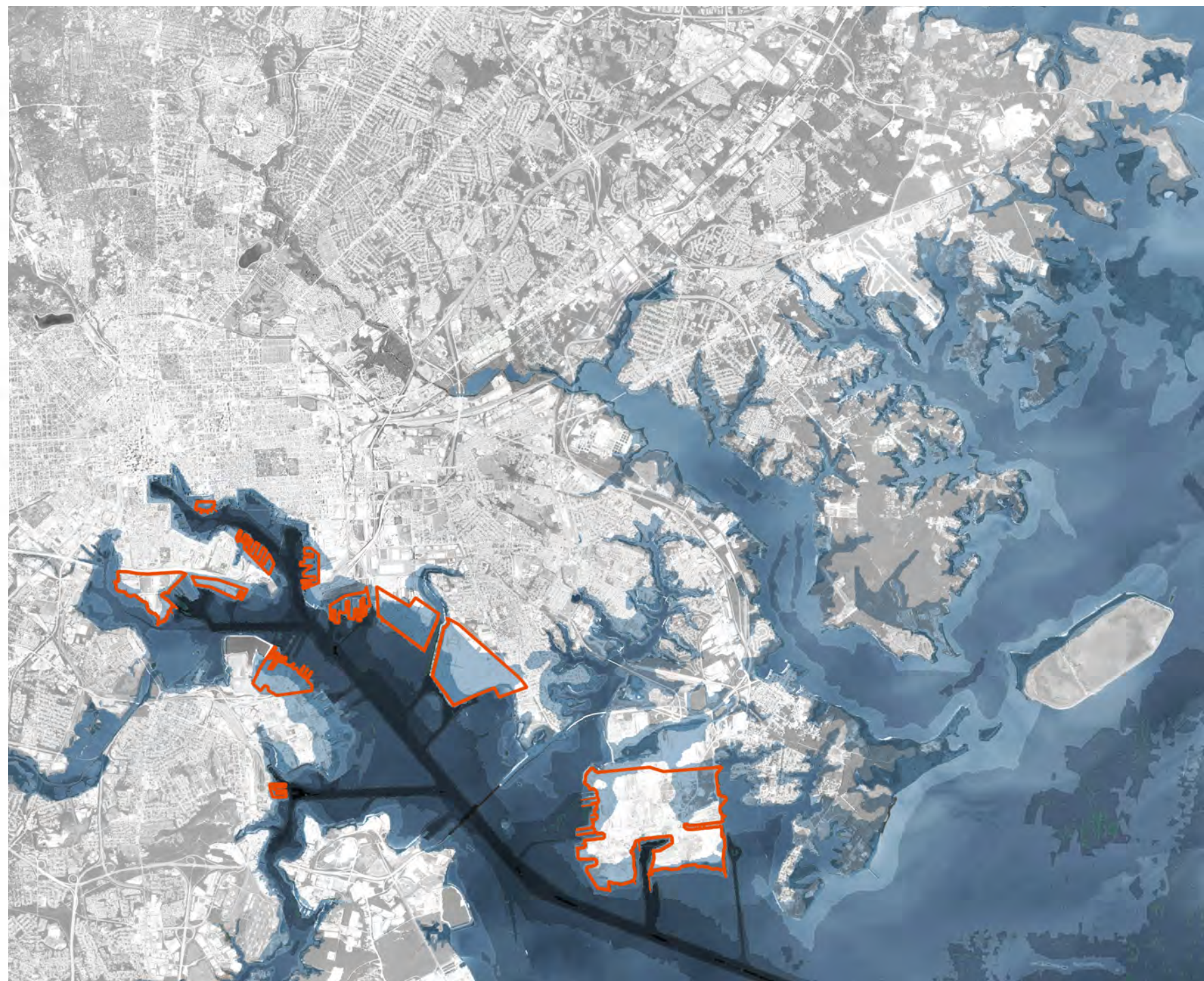
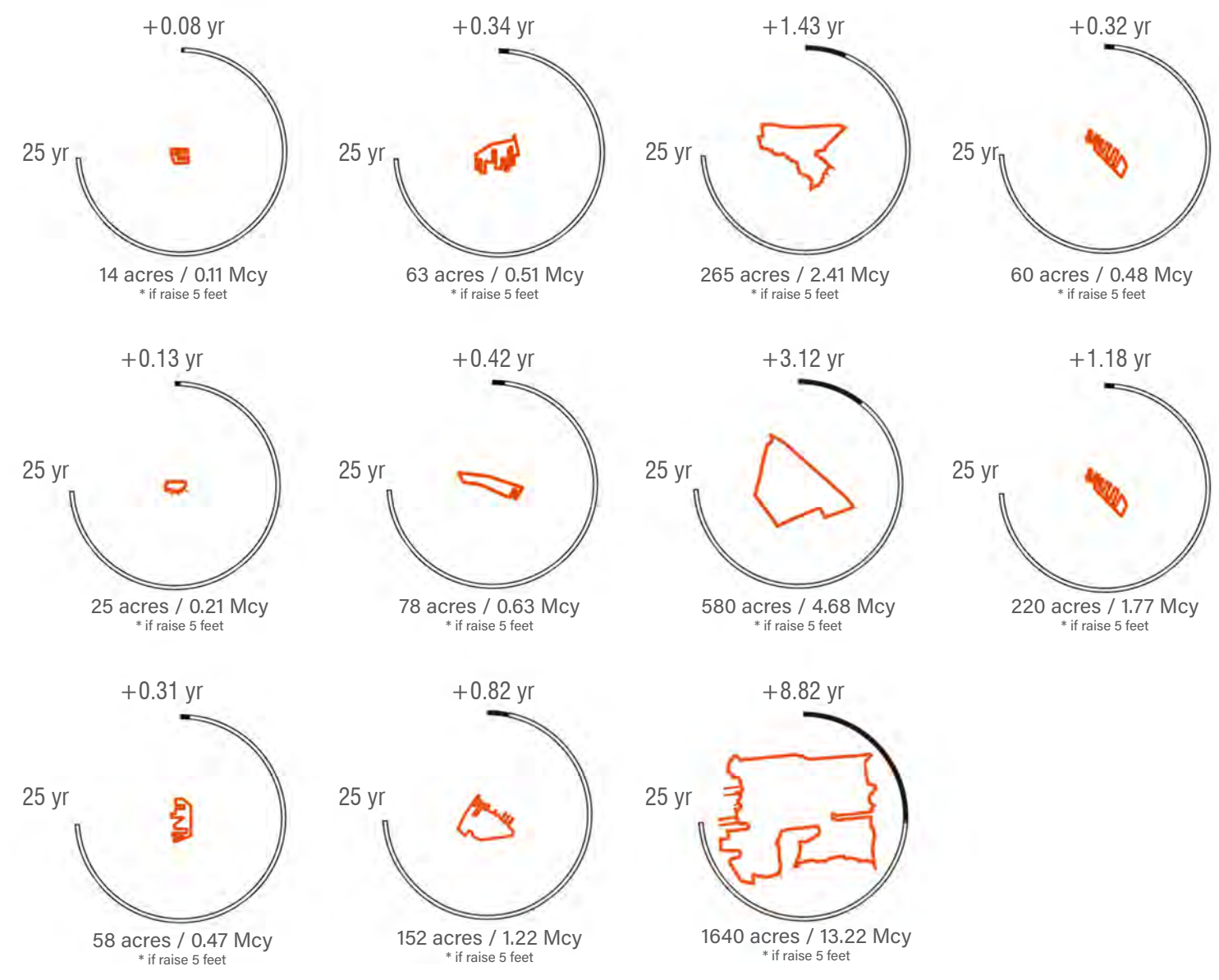
## COST

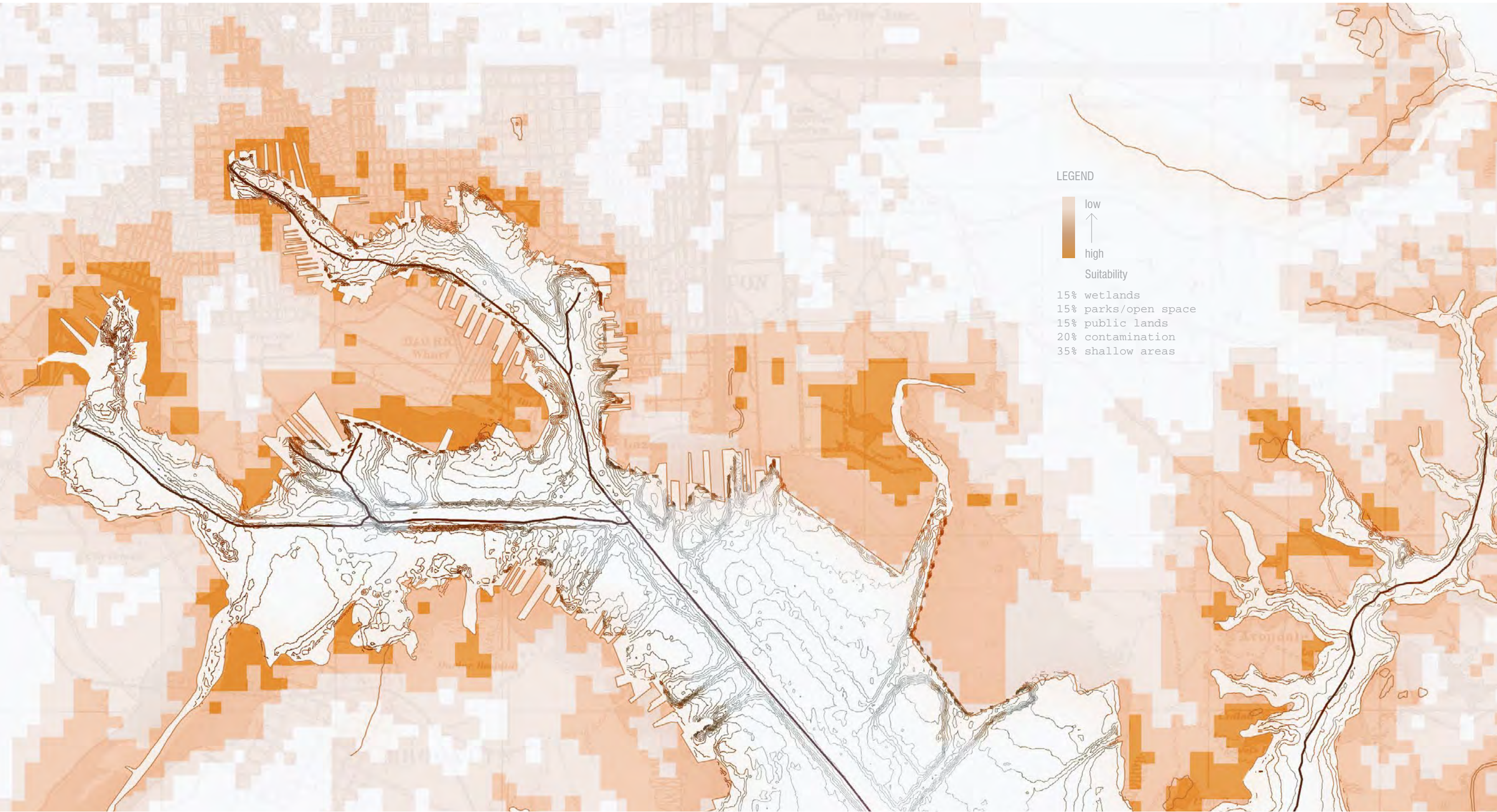
The costs of innovative reuse and beneficial use projects are typically shared between local and federal government. Additional cost-sharing arrangements can be developed when projects provide co-benefits (social, ecological, and/or economic) to targeted stakeholders.



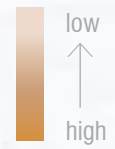








LEGEND



- Suitability
- 15% wetlands
  - 15% parks/open space
  - 15% public lands
  - 20% contamination
  - 35% shallow areas



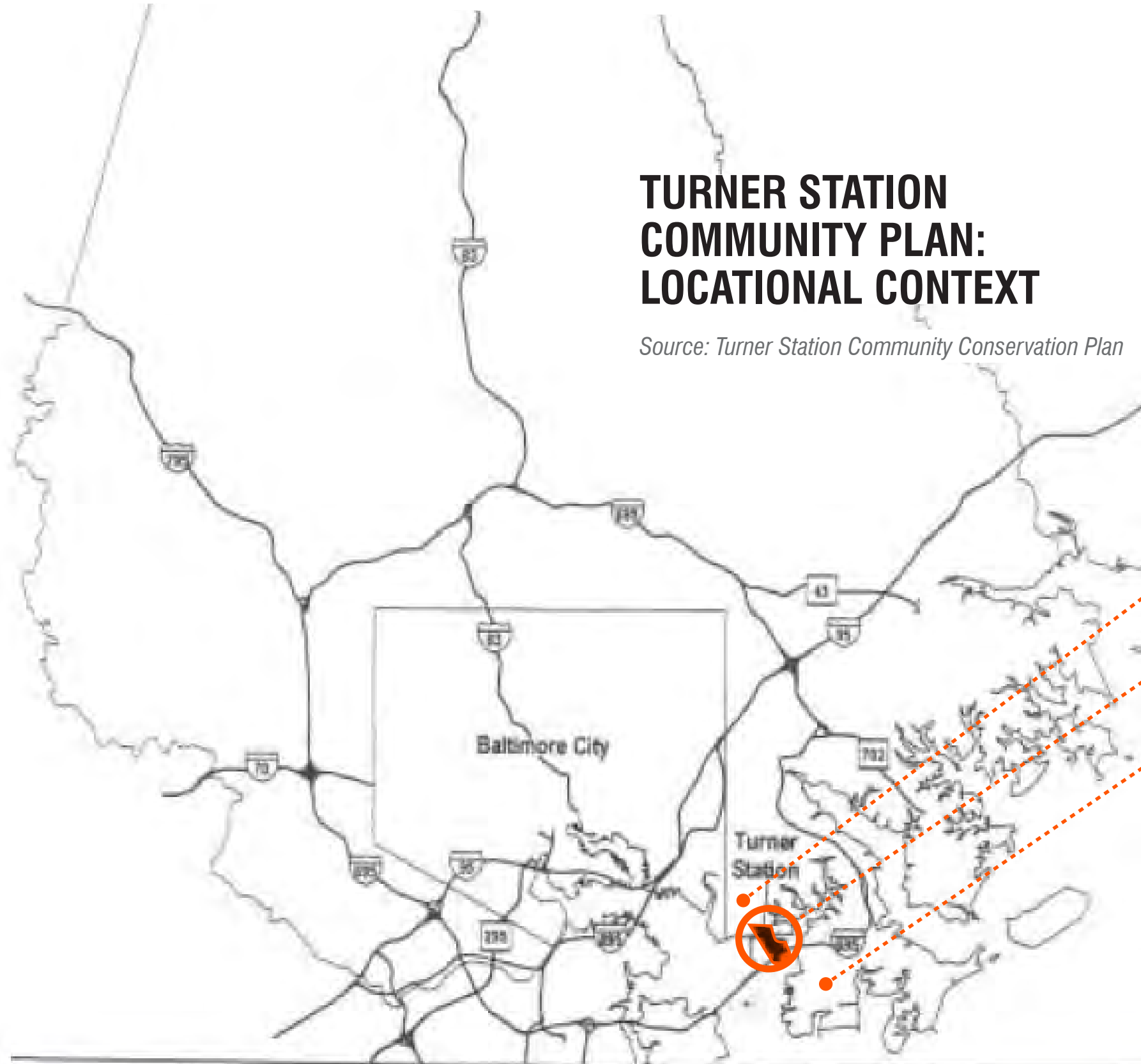
I. Sea Level Rise & Sediment Management: Baltimore

**II. Community Context: Turner Station**

III. Design Process: Fleming Park

# TURNER STATION COMMUNITY PLAN: LOCATIONAL CONTEXT

Source: Turner Station Community Conservation Plan



Prepared by:  
Baltimore County Office of Planning  
851 Easton Avenue  
Towson, Maryland 21286  
January 2007



Major Roads  
Turner Station Plan Area  
Baltimore County Boundary  
Water

Data Source:  
Roads - Baltimore Metropolitan  
County (2006)  
Water - Baltimore Metropolitan  
County (2006)

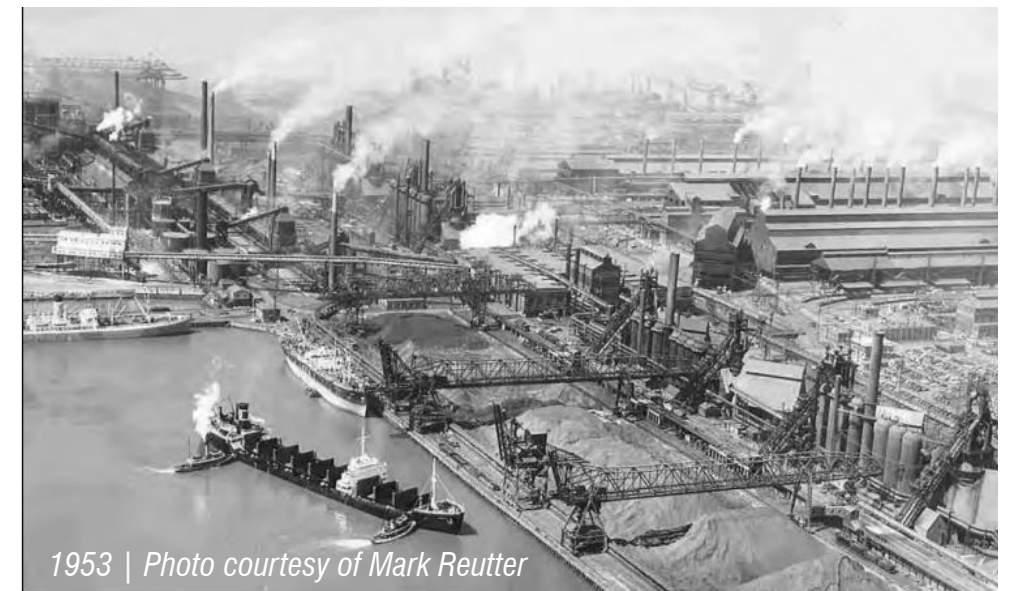


Photo courtesy of Baltimore Museum of Industry

**DUNDALK MARINE TERMINAL**

**TURNER STATION**

**SPARROWS POINT**



1953 | Photo courtesy of Mark Reutter



▲ *The Consent Decree in 1974 was a significant moment for civil rights in the steel industry, a movement that started in the 1940s*



◀ *Among the workers drawn to Sparrows Point to work during World War II, was Day Lacks, husband of Henrietta, who lived in Turner Station.*



◀ *Preparing for 'tap,' L Furnace Keeper, Charles Woods, is one of many African American men who has worked in the Bethlehem Steel Mill on Sparrows Point.*



▲ *Fleming Beach, Opening Day at Sollers Point. 1964*



▲ *Edward Alston (left), & James Lewis, Turner Station Residents, crabbing. Sep. 13, 1947*



## TURNER STATION CONSERVATION TEAM

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### Gloria Nelson

*TSCT President*

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- + *Original Harbor Team member since 2003*
- + *Served on Diesel Emissions Round Table*
- + *MPA Dray Truck Program community representative*
- + *COPR Community Work Group representative*
- + *Greenports Congress Participant, 2018*

### Larry Bannerman

*TSCT Board Member*

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- + *Innovative Reuse Committee member since 2011*
- + *Served on Diesel Emissions Round Table*
- + *MPA Dray Truck Program community representative*
- + *COPR Community Work Group representative*
- + *Greenports Congress Participant, 2018*

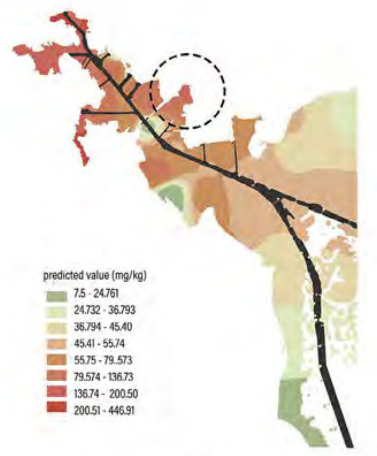
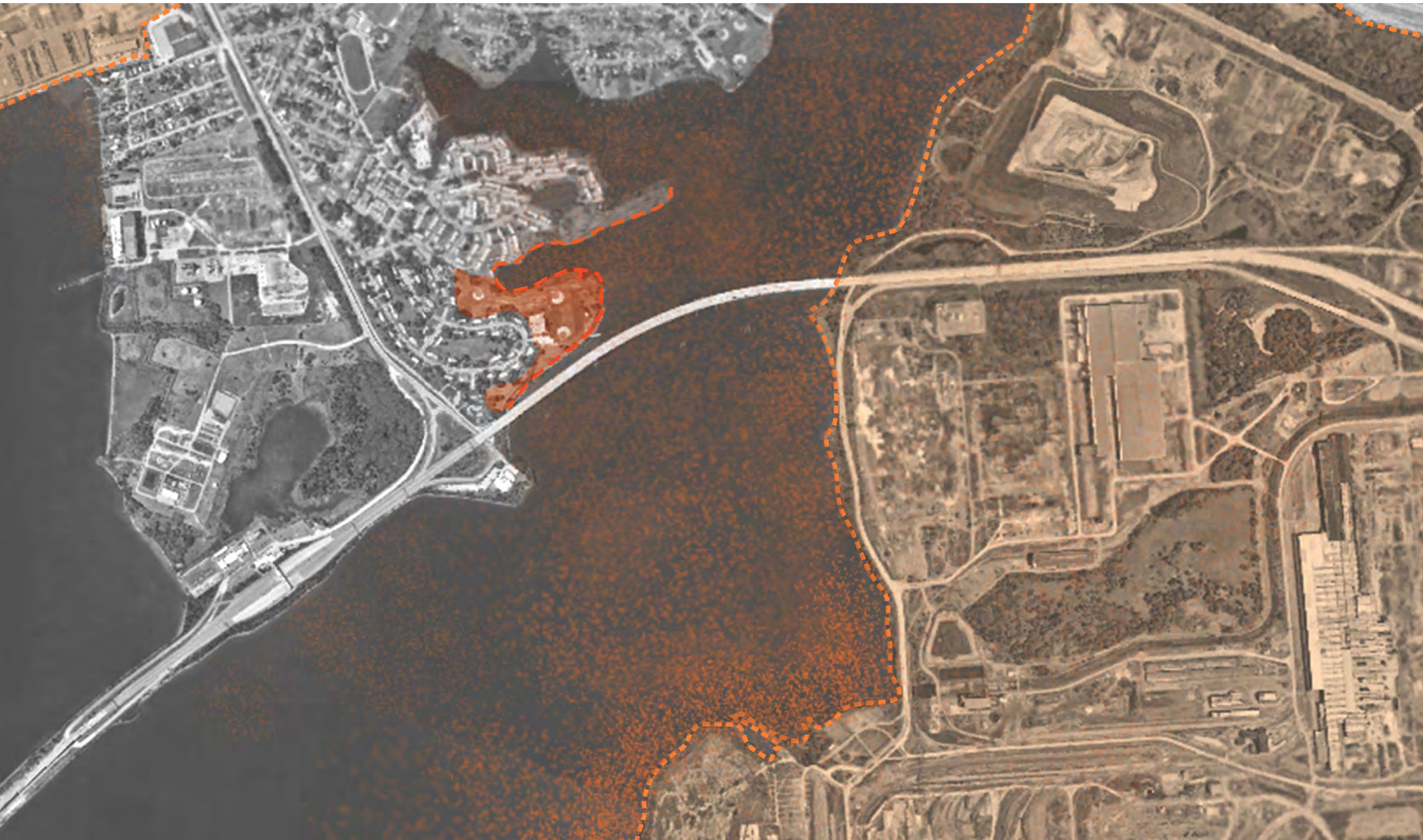


I. Sea Level Rise & Sediment Management: Baltimore

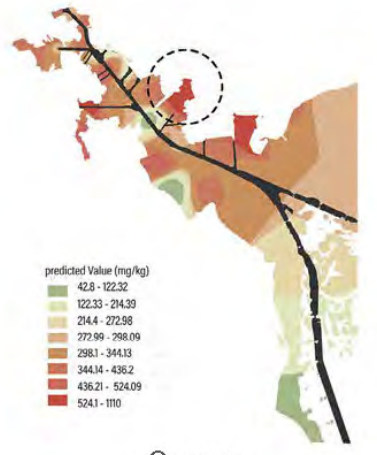
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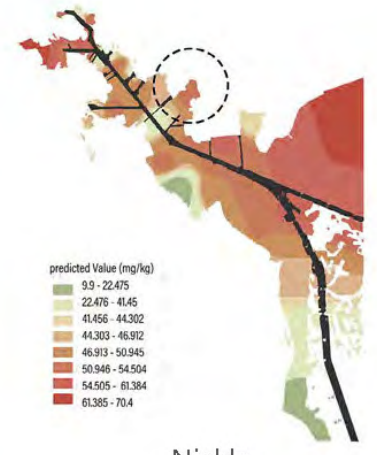




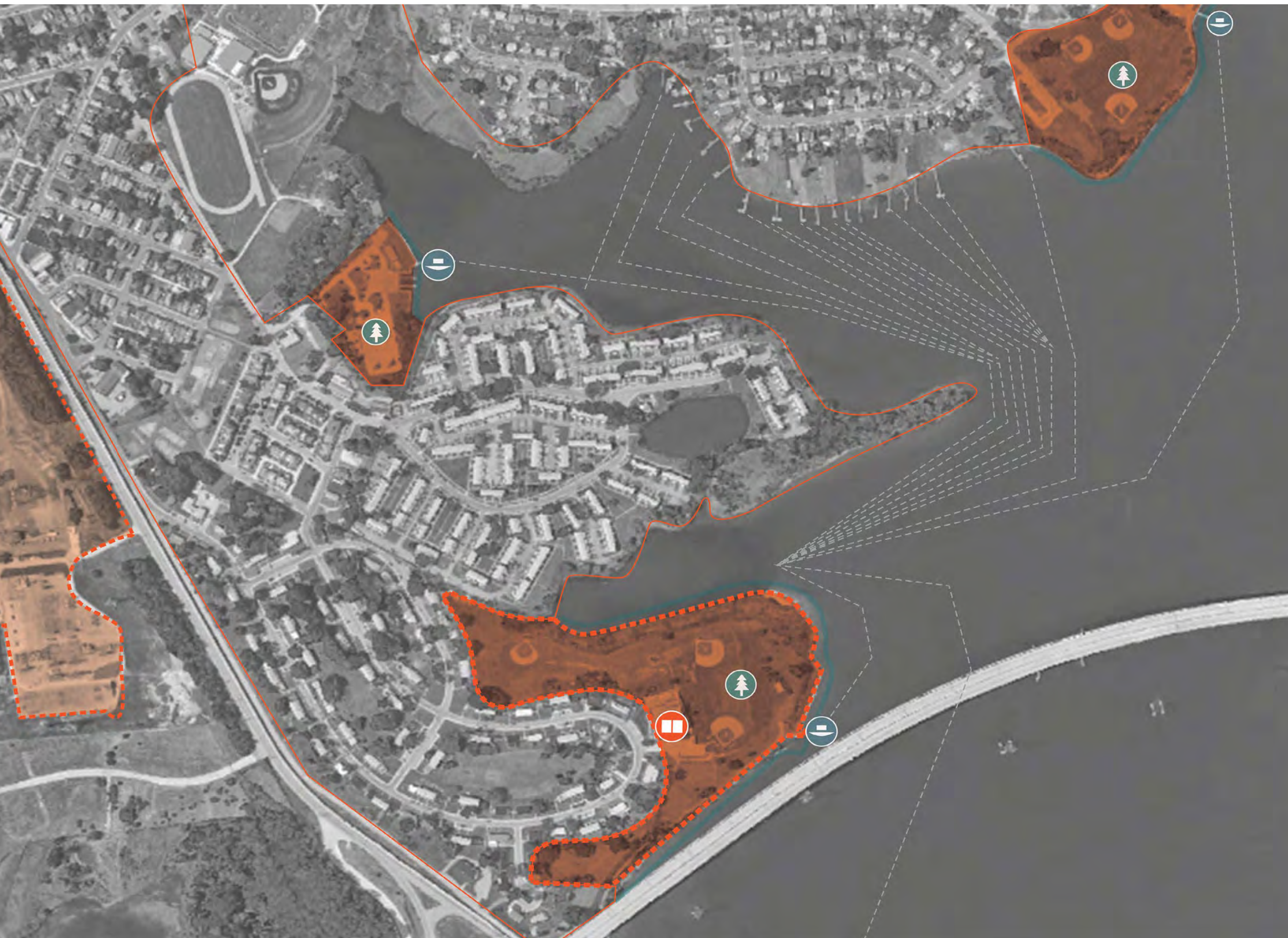
Zinc



Copper

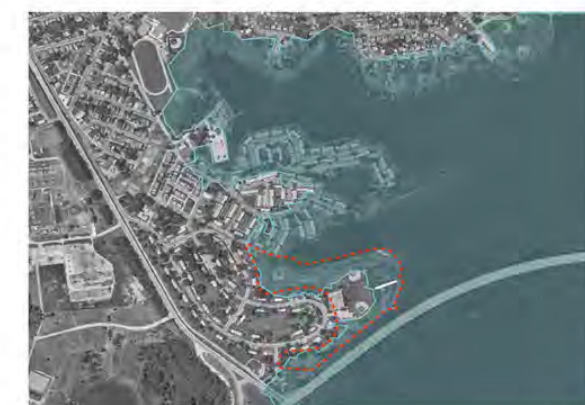


Nickle



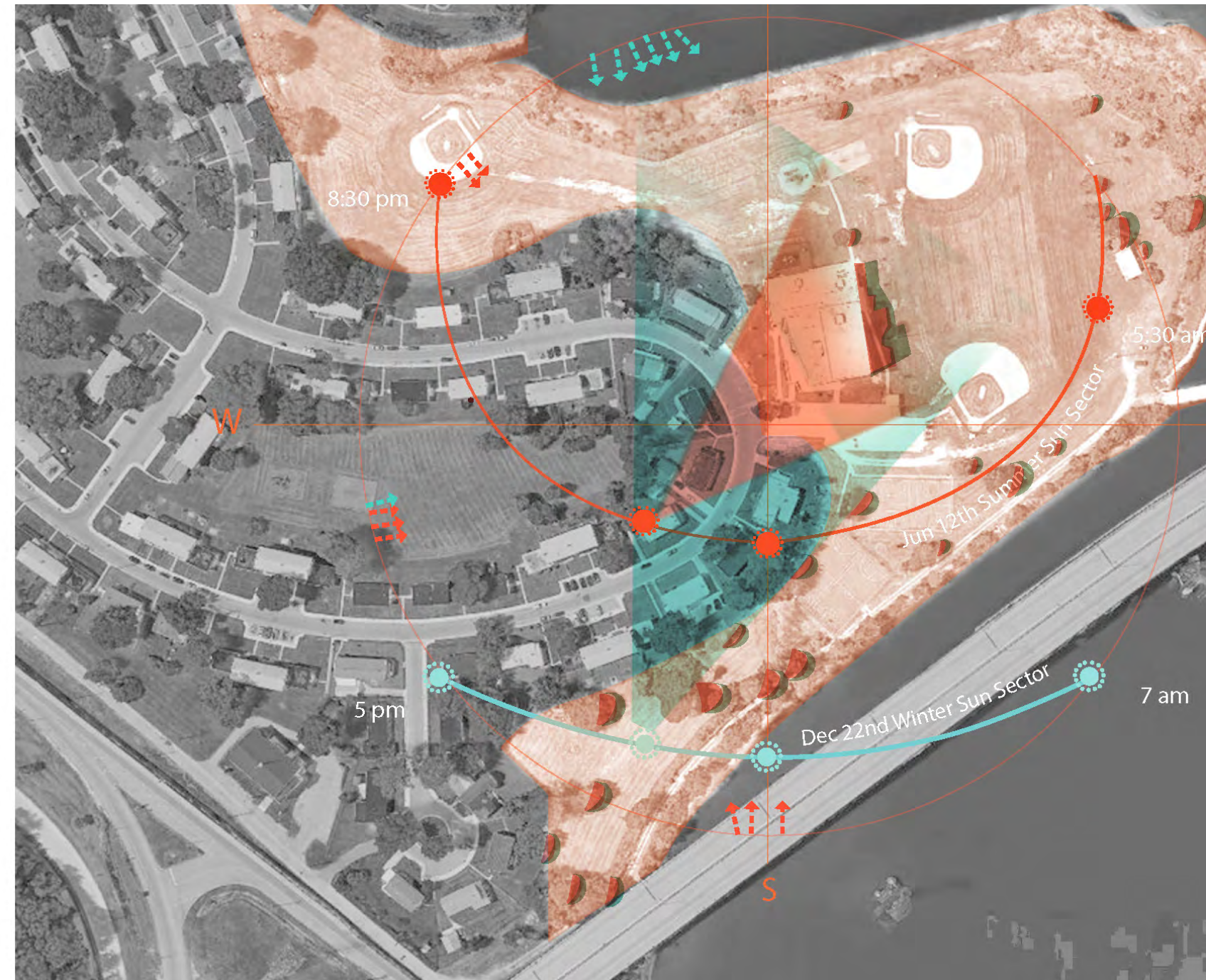
King tide  
 2150/ 4ft  
 2100/ 2ft  
 2060/ 1ft

Sea Level Rise

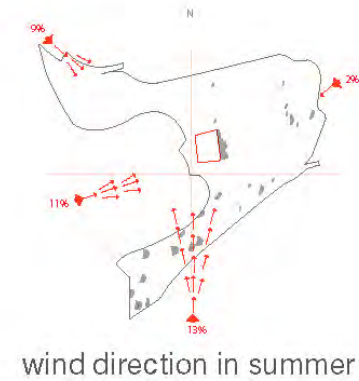
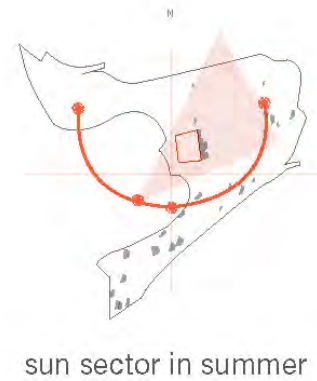
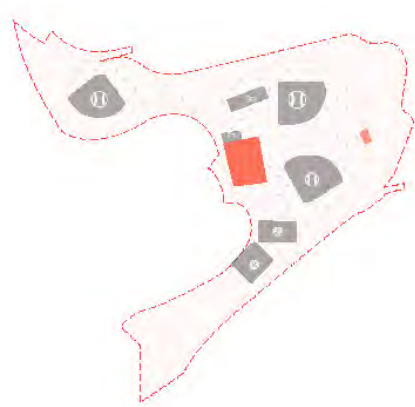


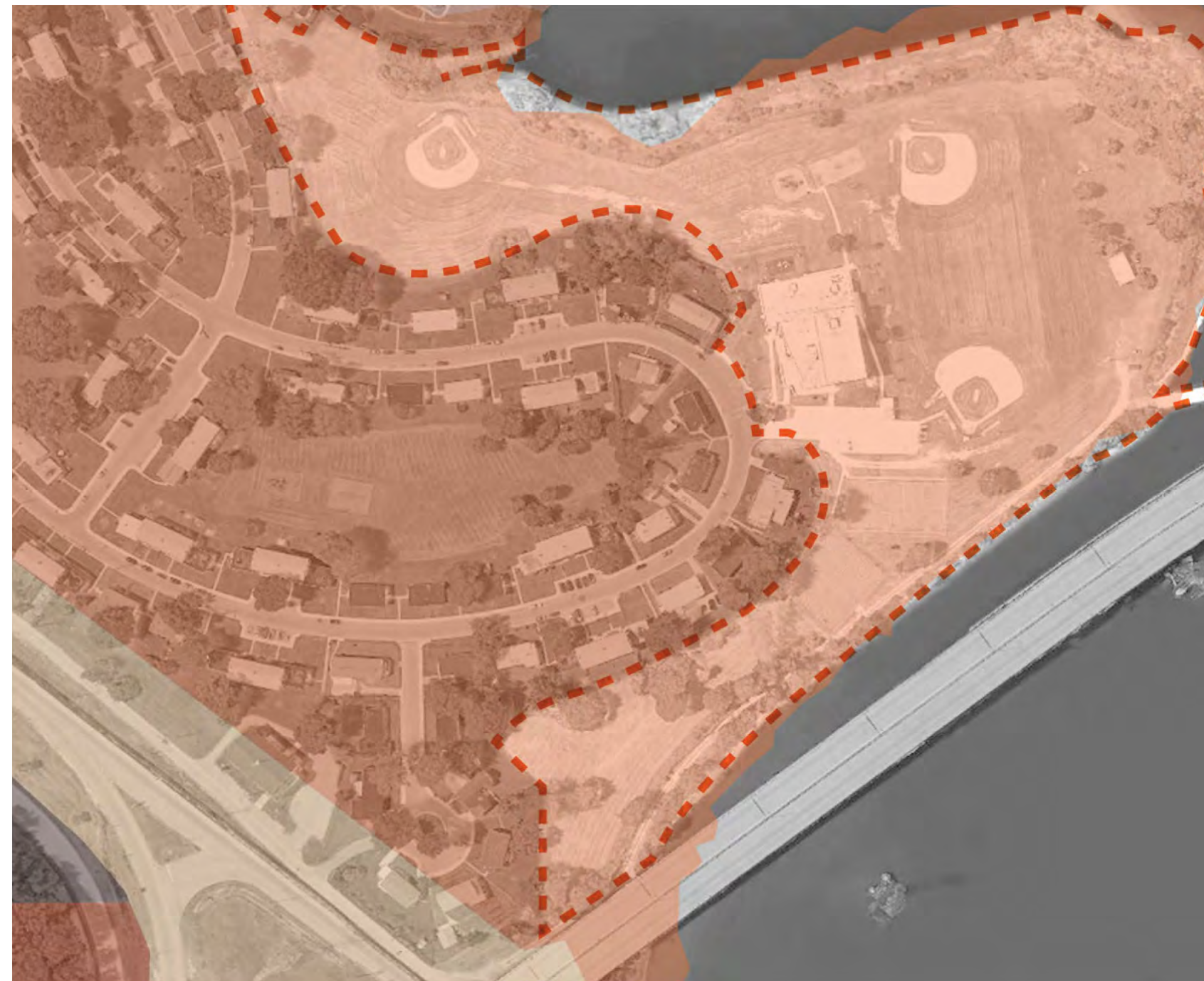
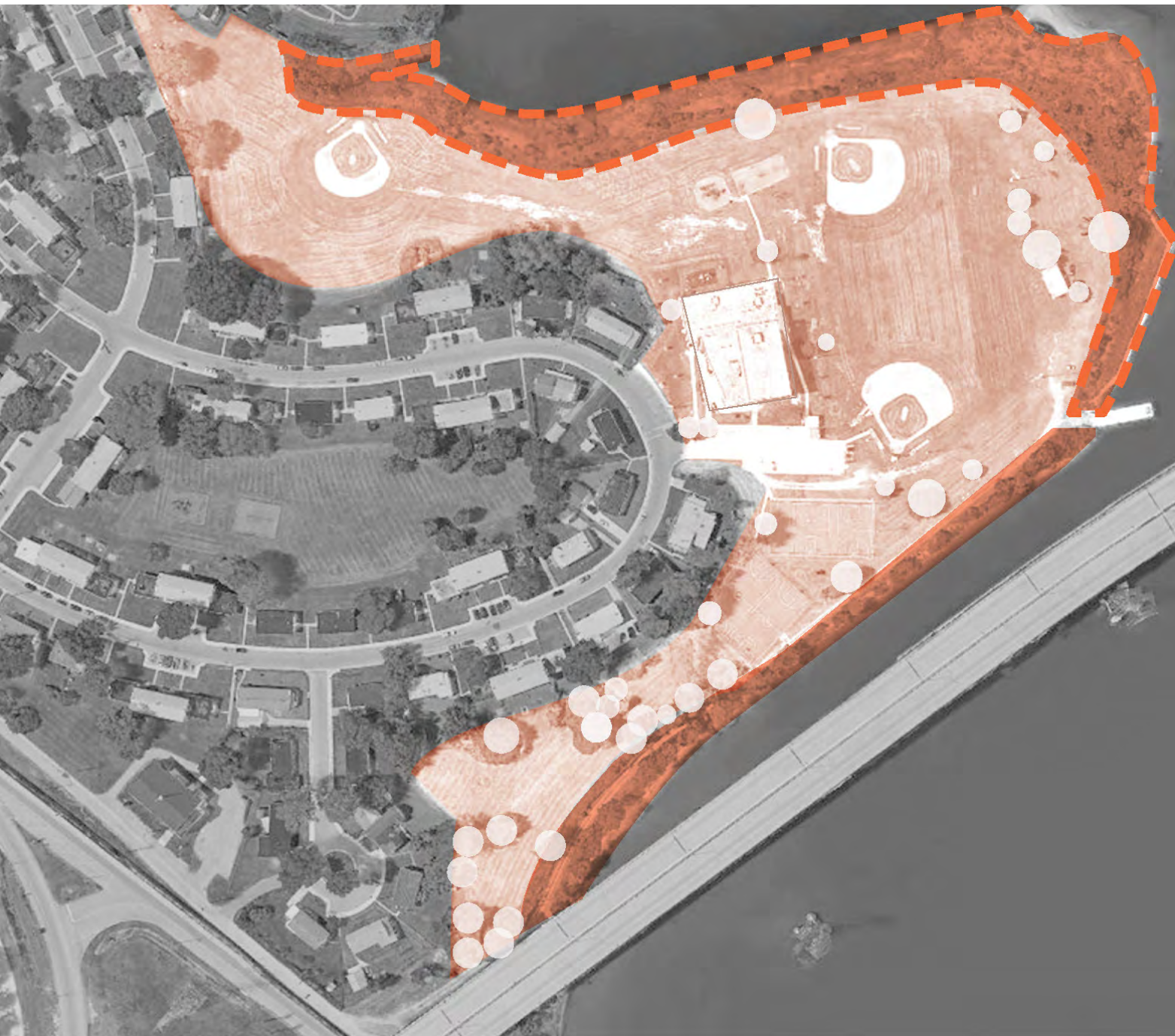
King tide  
 annual 2% flooding risk prediction

Flooding Risk



-  basketball
-  baseball
-  barbecue
-  playground
-  education





managed lawn



high marsh zone



invasive species



Mkb



Uub



Ucf



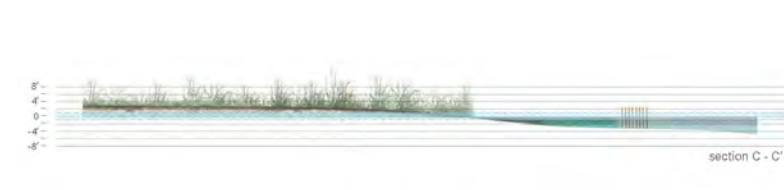
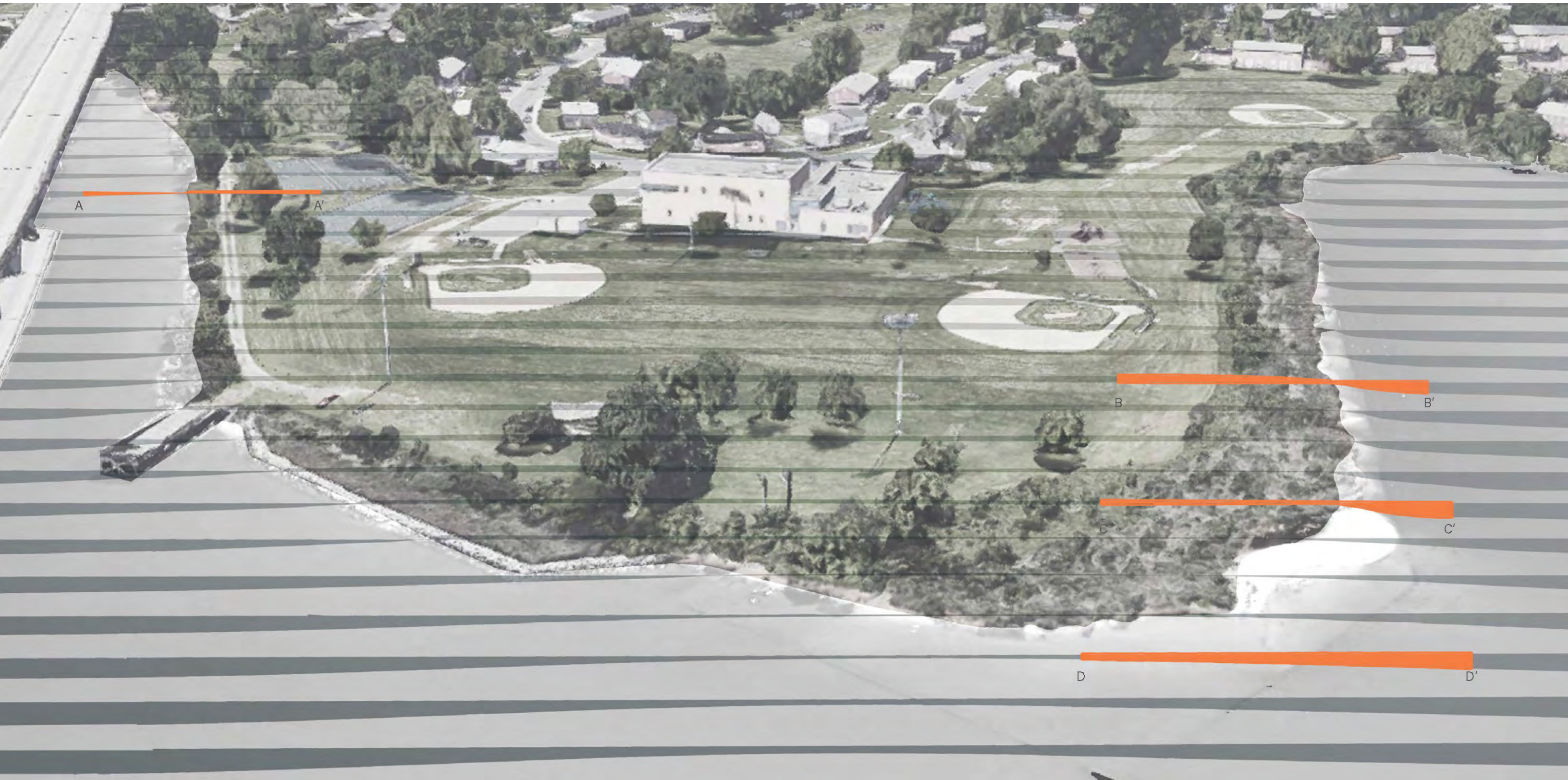
MhA

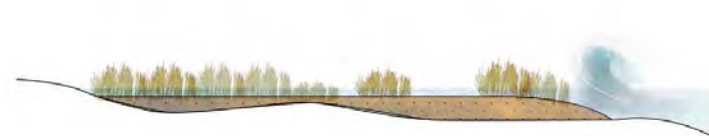


CrA





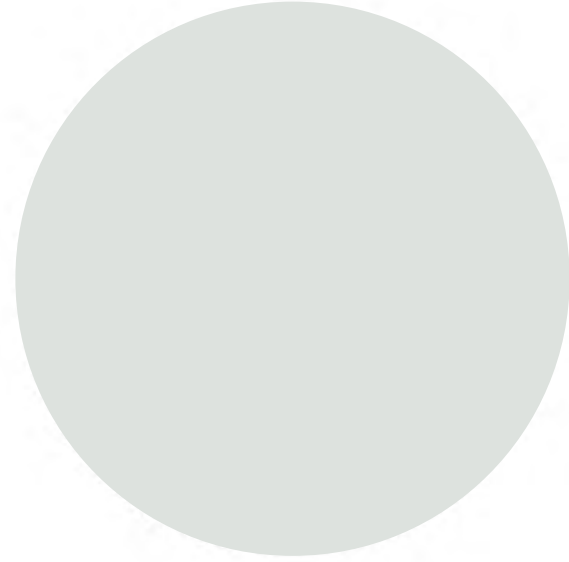




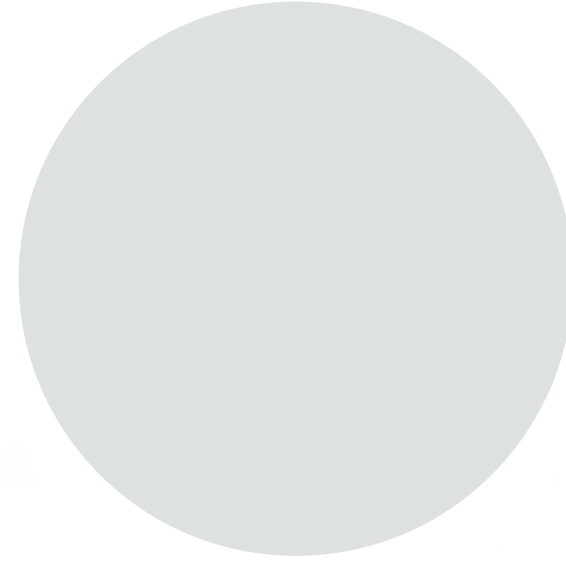


BOARD WALK

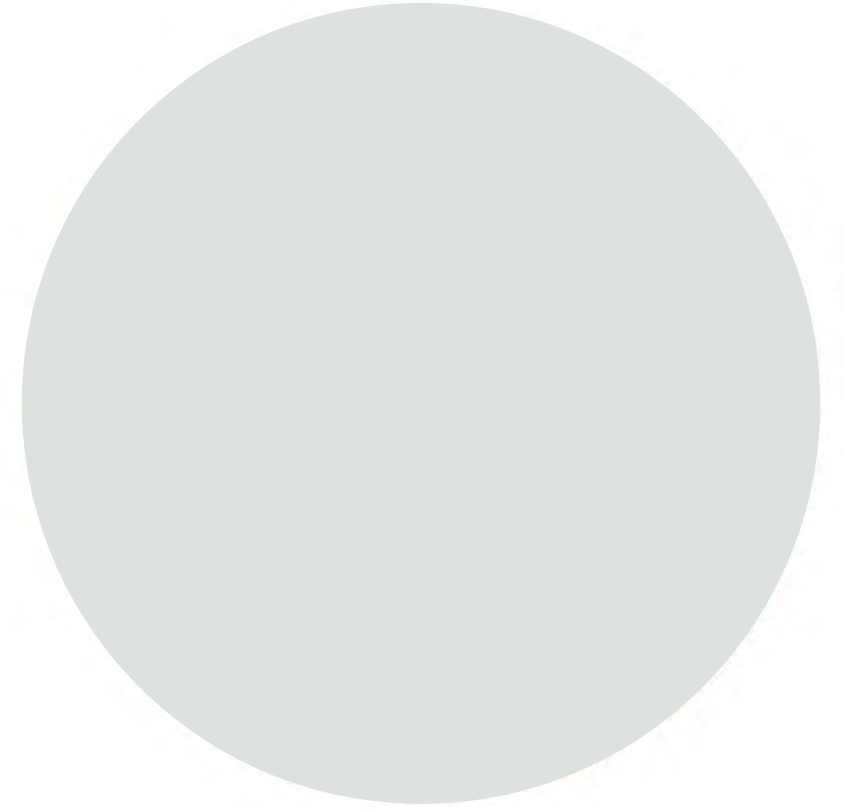
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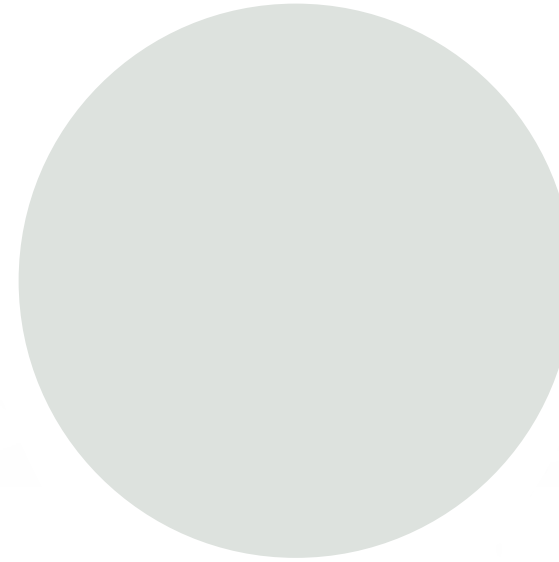
BOARD WALK

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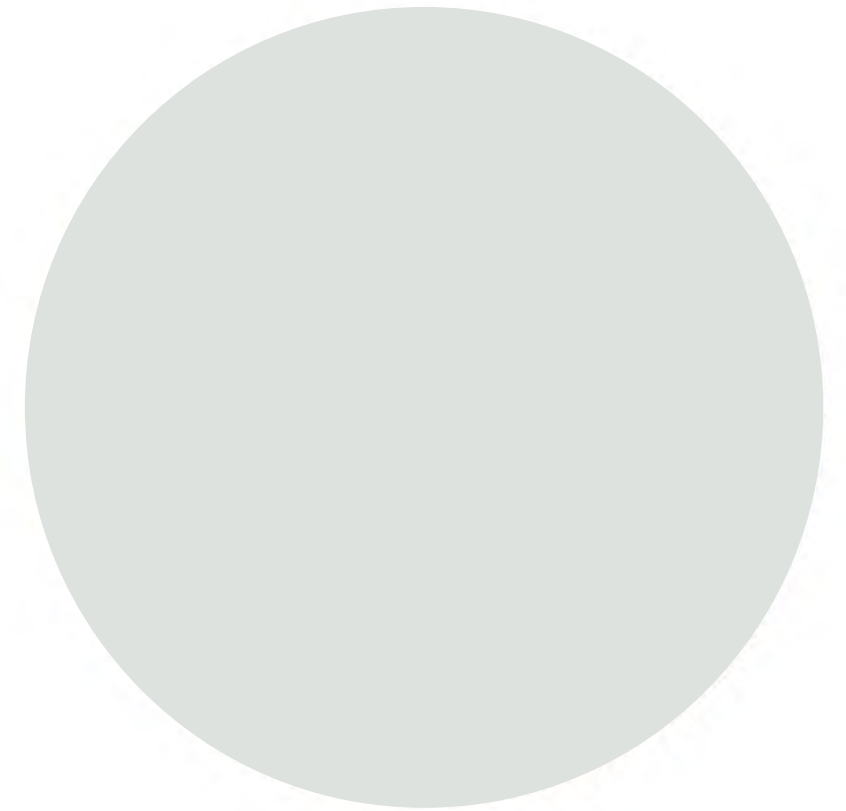


THIN LAYER PLACEMENT CONTAINMENT

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BOARD WALK

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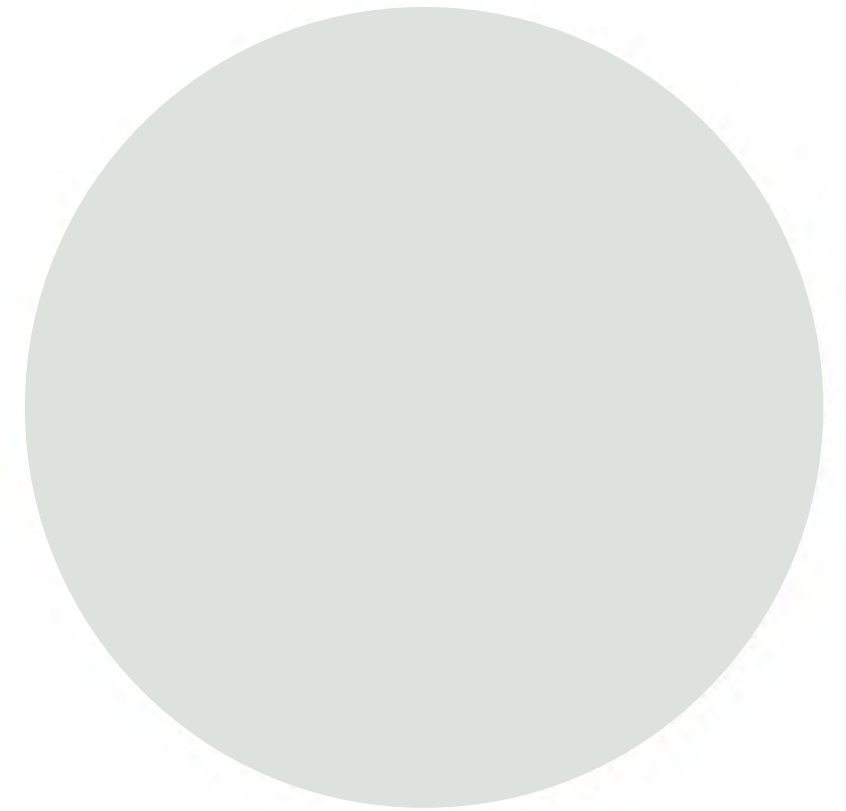
THIN LAYER PLACEMENT CONTAINMENT

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THIN LAYER PLACEMENT PUMPING

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BOARD WALK

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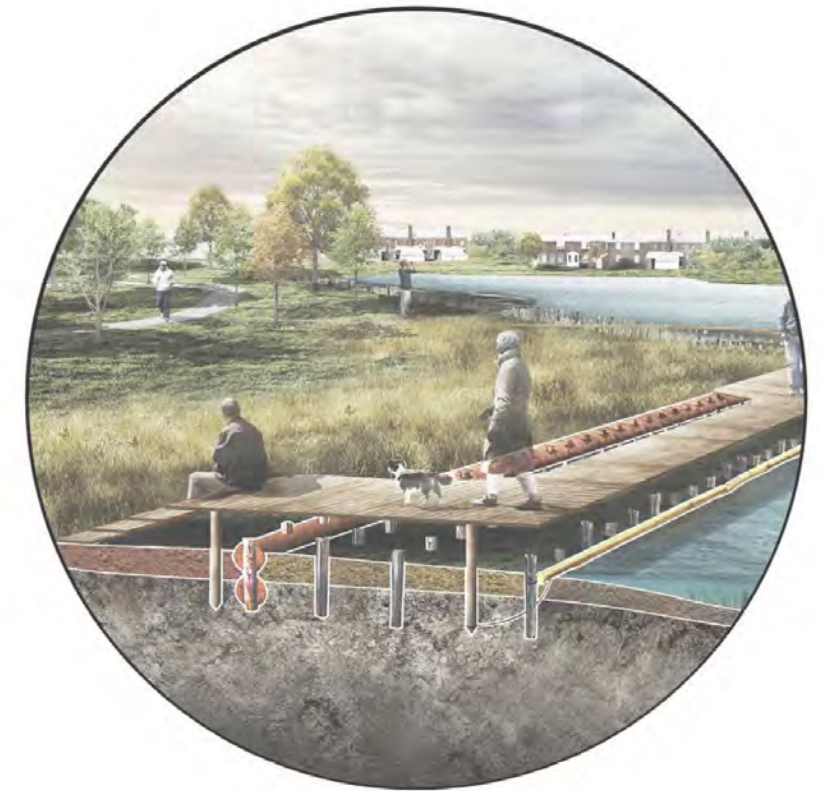
THIN LAYER PLACEMENT CONTAINMENT

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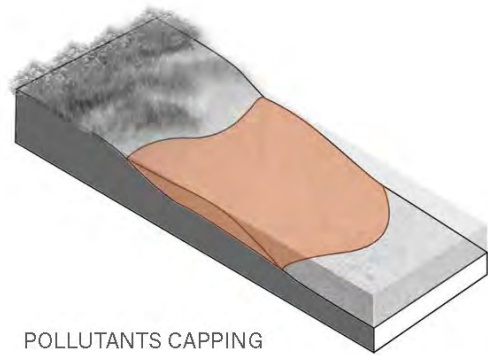


THIN LAYER PLACEMENT PUMPING

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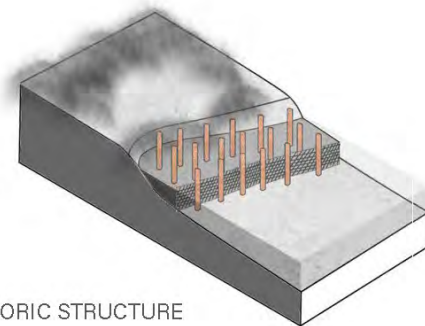
HYBRID PUBLIC LANDSCAPE



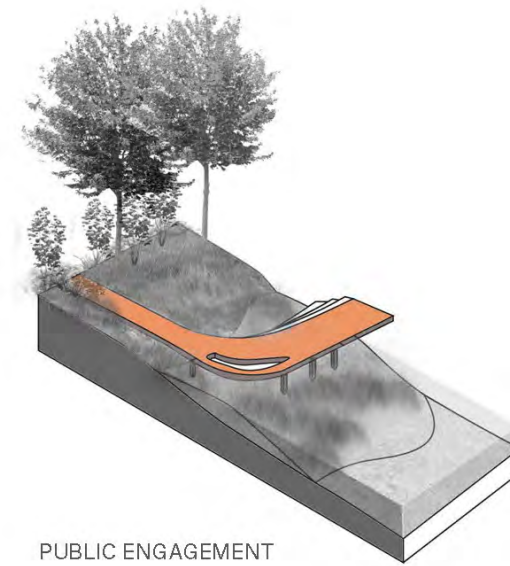
POLLUTANTS CAPPING



SHORELINE PROTECTION



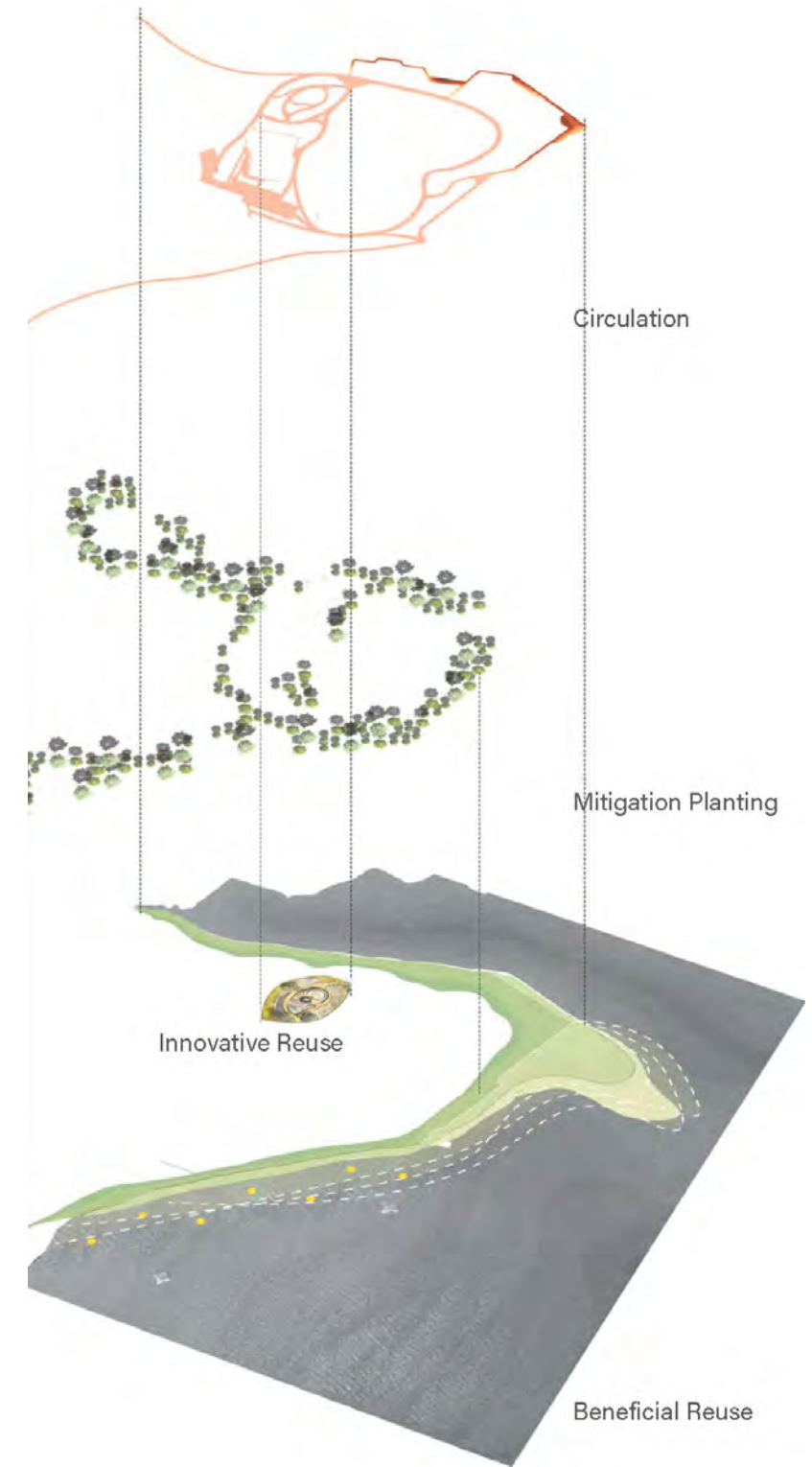
PRESERVE HISTORIC STRUCTURE



PUBLIC ENGAGEMENT



ECOLOGICAL IMPROVEMENT









*Acer rubrum*



*Betula nigra*



*Quercus alba*



*Rubus allegheniensis*



*Cephalanthus occidentalis*



*Baccharis halimifolia*



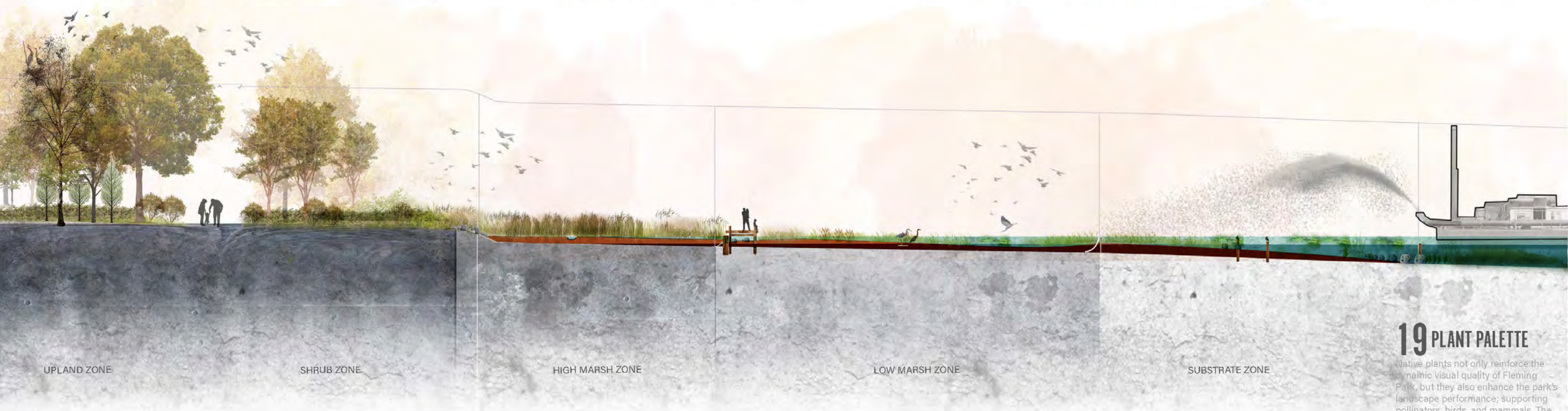
*Schoenoplectus americanus*



*Spartina patens*



*Spartina alterniflora*



## 19 PLANT PALETTE

Native plants not only reinforce the dynamic visual quality of Fleming Park, but they also enhance the park's landscape performance; supporting pollinators, birds, and mammals. The rich palette of grasses, shrubs, and trees, which change seasonally are also a draw for visitors who can see a dazzling array of berries, flowers, leaves, and bark.



Coir Log

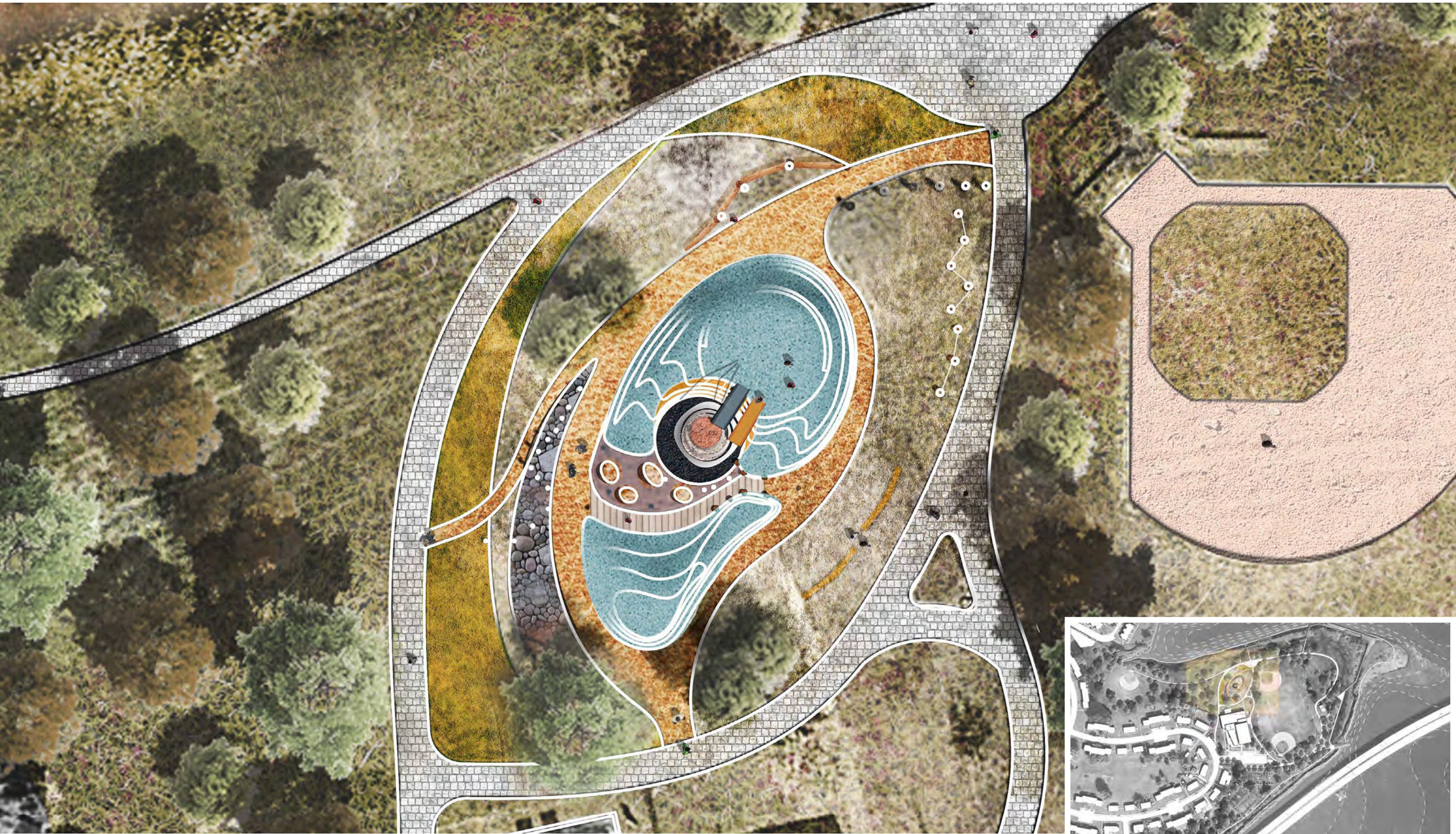
Boardwalk Pile

Silt Curtain

HIGH MARSH DREDGED MATERIAL

LOW MARSH DREDGED MATERIAL

SUBSTRATE ZONE DREDGED MATERIAL





## FLEMING PARK: COALITION MEETINGS/EVENTS

	DATE	LOCATION	PERSON
1	July 18, 2017	Fleming Park Tour	Environ. Students, MPA
2	July 18, 2017	Site Visit	Mahan Rykiel + Community
3	June 1, 2018	Fleming Park Tour	Timothy Wheeler - Bay Journal
4	June 19, 2018	Fleming Park Tour	Senator Johnny Ray Salling
5	June 28, 2018	TPA - Sparrows Point	Aaron Tomarchio, VP Corp. Affairs
6	September 28, 2018	Broadway Diner	Johnny O - Candidate Count Exec.
7	October 4, 2018	DNR - Annapolis	Nicole Carlozo, Resiliency Planner
8	November 9, 2018	Fleming Park Tour	William Baker, Pres. CBF
9	November 26, 2018	Sollers MPC-TSCT Mtg.	Received \$30,000 Donation
10	December 11, 2018	Sollers MPC	Victoria Streitfeld - Honeywell
11	January 16, 2019	Phone Conversation	Victoria Streitfeld - Honeywell
12	January 22, 2019	Balto. County Rec. & Parks	Barry William, Dir. Rec. & Parks
13	January 23, 2019	Annapolis	Legislative Reception
14	January 28, 2019	MDE Headquarters	Matt Rowe, Asst. Dir.
15	January 31, 2019	Eastern Voc. Tech School	Johnny O's Town Meeting
16	February 5, 2019	MPA Headquarters	Chris Correale, Dir. Dredging Prog.
17	February 19, 2019	Fleming Park Tour	Kelsey Brooks, MD Sea Grant
18	February 20, 2019	Todd's Office - Eastpoint Mall	Councilman Todd Crandell
19	February 26, 2019	MPA Innovative Reuse Mtg.	MPA Committee
20	March 11, 2019	Sollers MPC	Outreach Meeting- Community
21	April 27, 2019	Fleming Park Clean Up	Ports America & Community

**21** COALITION MEETINGS/EVENTS  
SINCE JULY 2017



# FLEMING PARK

## Clean Up Party

### VOLUNTEERS NEEDED!

Service Learning Hours for Students!

Saturday, April 27, 2019  
8:00 AM to 12:00 PM  
*Rain or Shine!*

Meet at:  
**FLEMING PARK SENIOR CENTER**  
641 Main Street

For more information call, Gloria Nelson, President of Turner Station Conservation Teams at 410-302-2903

• FUN • MUSIC • GAMES • FOOD •

In Partnership with...



Through the Design with Dredge program, the proposed design for **FLEMING PARK** in Turner Station will aim to innovatively reuse and beneficially use maintenance channel dredged material from the Baltimore Harbor to support public health, habitat restoration, coastal resiliency, and environmental justice. ——— DESIGN WITH DREDGE





# 12 LETTERS OF SUPPORT

## Fleming Senior Center Council

641 Main Street  
Dundalk, MD 21222  
410.887.7225 (12-4p)

Donald L. Jones, President  
Selma Saunders, V. President  
Carolyn McArthur, Secretary

March 9, 2018

Thomas P. Smith,  
Chief Operations and Regulatory Division,  
U.S. Army Corps of Engineers

Re: Water Resources Development Act of 2016, Beneficial Use of Dredge Material

The Pilot Project is specially designed to:

- o Reduce Storm damage to property and infrastructure.
- o Promote Public Safety
- o Stabilize and Enhance Shorelines
- o Promote Recreation
- o Reduce costs of dredging by beneficial use of dredged material

The Fleming Senior Center Council supports all of the objectives of the WRDA Pilot Program.

The shoreline along Fleming Park has long suffered erosion and property damage to our neighbors. The shoreline is the first line of defense. We join in support with the members of the Turner Station Conservation Teams, which are partnering with the MPA Harbor Team and the Innovative Reuse Committee. We have received information from community wide meetings regarding maintenance dredging of the Baltimore shipping channel.

The benefits, requirements and specifications of this project encourages us to extend our full support to the Pilot Project.

Sincerely,



Donald L. Jones  
President of the Fleming Senior

The mission of Baltimore County is to maintain the integrity of the unique history and support Baltimore County Senior Citizens the community. The primary focus services which will ensure the highest



Great Lakes  
Dredge & Dock  
Company, LLC

2122 York Road  
Oak Brook, Illinois 60522  
(630) 574-3800

12 March 2018

Mr. Thomas P. Smith  
USACE  
Attn: CECW-CO-OD  
441 G Street NW  
Washington DC 20314

RFP – Pilot Project for Beneficial Use under WIIN – Fleming

Mr. Smith:

Thank you for your acceptance of this proposal. As you know, Fleming Park has been a challenge for some time. We are pleased to offer you a solution which we believe meets all the requirements of the Corps and will be a challenge, but also believe a long term view of project collaborations that will show long term savings.

Best regards,

Great Lakes Dredge & Dock Company, LLC



Bill Hanson



April 5, 2019

Dear Fleming Park Project Partners,

RE: Fleming Park Restoration Project in Turner Station Community, Baltimore County, MD

On behalf of the Maryland Department of Transportation Maryland Port Administration (MDOT MPA), please consider this letter of enthusiastic support for the Fleming Park restoration project. MDOT MPA recognizes the dedication and creativity of the project partners, which has resulted in a strong coalition of support for this unique effort with far-reaching environmental, economic and social benefits to the Turner Station community, whose perseverance has shaped the history and culture of Baltimore County.

The MDOT MPA Innovative Reuse Strategy serves as a roadmap for the long-term sustainable management of dredged material removed from channels serving the Port of Baltimore. The Innovative Reuse Strategy tasks MDOT MPA to work with partners to implement dredged material demonstration projects in accordance with Governor Larry Hogan's Executive Order (EO 01.012017.13), which recognizes dredged material as a valuable resource that can be innovatively or beneficially reused. Additionally, the June 2017 release of the Maryland Department of the Environment (MDE) guidance document and technical screening criteria provides a transparent pathway for reusing dredged material in a method that is safe for human health and the environment.

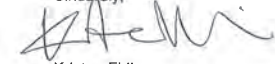
The conceptual design for the Fleming Park restoration project was developed through the award winning MDOT MPA-sponsored *Design with Dredge* collaborative design research internship that generated various ways in which dredged material could be reused in the Baltimore region. The Fleming Park design seeks to reuse dredged material in both upland and in-water applications that build on the Port of Baltimore's Innovative Reuse Program goals, while providing ecosystem restoration, coastal resiliency and public health benefits to the Turner Station community.

The beneficial use of dredged material in the Baltimore Harbor has never been conducted, despite the strong expression of interest by governmental and non-governmental entities alike. The project partners have demonstrated their ability to coalesce a diverse group of supporters, most notably Baltimore County who owns the park property. The robust community outreach and stakeholder engagement that the project partners have conducted includes frequent interaction with the citizens of Turner Station who have and continue to play an integral role in refining the project design.

World Trade Center, 401 E. Pratt Street, Baltimore, MD 21202 | 800.638.7519 | TTY 800.201.7165 | marylandports.com

If the Fleming Park restoration plan moves forward, it would be the first of its kind in Maryland and serve as a model for other Harbor communities in pursuit of environmental projects that mitigate for current and future climate change impacts. As such, the MDOT MPA team is willing to provide in-kind services and technical support to assist with the required sediment characterization and material screening using MDE guidance for the reuse of dredged material. MDOT MPA firmly believes that the Fleming Park restoration project will provide a valued benefit to the community and the Baltimore Harbor region.

Sincerely,



Kristen Fidler  
Director, Harbor Development

## Turner Station Conservation Teams, Inc.

323 Sollers Point Road  
Turner Station, MD 21222  
Website: <https://www.turnerstation.org/>

President: Gloria E. Nelson  
Vice President: Edyth Brooks  
Secretary: Maurisha Graves White  
Treasurer: Joyce Curbean



March 8, 2018

Greetings,

Re: Water Resources Development Act of 2016, Beneficial Use of Dredge Material  
The Pilot Project is specifically designed to:  
Reduce Storm damage to property and infrastructure.  
Promote Public Safety  
Stabilize and Enhance Shorelines  
Promote Recreation  
Reduce costs of dredging by beneficial use of dredged material

Our community of Turner Station and the organization Turner Station Conservation Teams, supports all of the objectives of this WRDA Pilot Program.

Our shoreline has long suffered erosion and we have suffered property damage and loss of life due to tropical storms. The shoreline is our first line of defense. Members of the Turner Station Conservation Teams also serve as members of the MPA Harbor Team and the Innovative Reuse Committee. We bring information regarding maintenance dredging of the Baltimore shipping channel back to the community for understanding and discussion. Our February 26, 2018 community meeting hosted an expert to explain dredging and dredge containment facilities.

With understanding of the benefits, requirements and aspects of this project, the Turner Station Conservation Teams gives it our full support.

Sincerely,  
Gloria Nelson  
President  
Turner Station Conservation Teams



JOHN A. OLSZEWSKI, JR.  
County Executive

BARRY F. WILLIAMS, Director  
Department of Recreation and Parks

January 29, 2019

To Whom It May Concern,

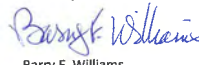
RE: Fleming Park: Coastal and Community Resiliency Project, Baltimore County, MD

With this letter, the Baltimore County Department of Recreation and Parks submits its enthusiastic support for the Fleming Park project. The Department of Recreation and Parks own and stewards the Fleming Park property on behalf of the citizens of the County. This project has the potential to serve as a replicable model for shoreline restoration, community resiliency, and economic development throughout the County, which is home to 219 miles of tidal shoreline and 2,145 miles of streambanks. In addition, the Fleming Park project supports the State's larger climate resiliency efforts as reported by the Maryland Climate Change Commission, as well as the State's waste reduction and resource recovery goals formalized by Maryland Governor Larry Hogan's Executive Order (EO 01.012017.13) by innovatively reusing dredged material for wetland restoration and marsh creation.

The diverse coalition of support already built by the project partners including the Turner Station Conservation Teams, Chesapeake Bay Foundation, Mahan Rykiel Associates, and others cuts across sectors and subject matters. The coalition's success is a sign of their shared commitment to the project and the growing need to take creative action to address community resiliency and flood risk management. This need is especially acute in Turner Station where legacies of labor, industry, and innovation overlap at the water's edge.

Emerging technologies in landscape architecture, ecological design, and sustainable construction present new methods for cost-effective project implementation that align with environmental justice and water quality goals, as well as the updated regulatory guidance for dredged material management prepared by the Maryland Department of Environment. As such, the Department of Recreation and Parks enthusiastically supports the Fleming Park project and the coalition of partners working to advance it. Our team is prepared to leverage our resources to this end, providing access to the site for sampling, design, field work, etc., and hope that others will join in this effort to realize a truly innovative and community-based project that serves as a model for Baltimore County and the entire Chesapeake Bay.

Sincerely,



Barry F. Williams  
Director

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COUNCILMAN, SEVENTH DISTRICT  
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DISTRICT OFFICE:  
7839 EASTPOINT MALL  
SUITE 307  
BALTIMORE, MARYLAND 21224  
410-887-3303  
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To Whom It May Concern,

Re: Fleming Park: Coastal and Community Resiliency Project, Baltimore County, MD

I am writing to express my support for the application submitted by the Turner Station Conservation Team for funding of the Fleming Park Urban Thin Layer Placement Pilot Project.

The ongoing work of the Conservation Team is commendable. At the local level of government, it can sometimes be difficult to fund and address issues that are solely the responsibility of county government, let alone grant options for additional projects. Yet, the Conservation Team has put in large amounts of time on a project that will address many different issues at once.

If funded and successful, this project will revitalize historic Turner Station's Fleming waterfront section while addressing flooding and erosion issues and raising the quality of life around the area. I cannot think of a recent project with this much potential and I trust you will give Turner Station Conservation Team's grant application careful consideration.

Please keep me informed of any progress.

Sincerely,



Todd Crandell

# 12 LETTERS OF SUPPORT



Larry Hogan, Governor  
Boyd Rutherford, Lt. Governor  
Mark Balton, Secretary  
Joanne Throws, Deputy Secretary

To Whom It May Concern,

RE: Fleming Park: Urban Thin Layer Placement Pilot Project, Baltimore County, MD

I am writing to express interest in a workshop that will support the execution of the Fleming Park Urban Thin Layer Placement (TLP) Pilot Project. TLP has been implemented for decades in southern states, such as Louisiana, and shown success as a marsh restoration and resiliency enhancement technique. Currently, there is only one thin-layer placement project in Maryland, at the Blackwater National Wildlife Refuge. Though this project is exhibiting positive results, there is a still a need to explore opportunities to pilot this restoration technique in Maryland. TLP pilot projects are vital in furthering our understanding of how to implement this technique across the state, aiding in the protection of our rapidly sinking marshes.

The Maryland Department of Natural Resources (DNR) is currently evaluating ways to proactively identify environmentally- and economically-sound beneficial uses of dredged material. While TLP is still being developed as a marsh restoration technique, it has the potential to complement DNR's work to protect and preserve our natural resources and support beneficial use of dredged material. The Fleming Park project has the potential to serve an important role in these efforts by simultaneously reducing dredged material waste, enhancing a marsh, and promoting community resilience.

As a NOAA Coastal Management fellow I have been specifically tasked with "address[ing] on-the-ground examples of thin-layering projects to be able to advance the monitoring and science behind this practice and technology". Through this work I have conducted interviews and attended workshops focused on developing and understanding TLP best practices. With an appreciation for the importance of creating a shared pool of TLP knowledge to enable successful implementation, I am dedicated to participating in conversations that will assist the Fleming Park project.

Best regards,

*Jackie Specht*  
Jackie Specht, NOAA Coastal Management Fellow  
Chesapeake and Coastal Service

Tawes State Office Building – 580 Taylor Av  
410-260-8DNR or toll free in Maryland 877-620-8DNR – dnr.m



JUL 20 2018

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor  
Ben Crumblies, Secretary  
Horacio Tablada, Deputy Secretary

To Whom It May Concern,

RE: Fleming Park: Urban Thin Layer Placement Pilot Project, Baltimore County, MD

On behalf of the Water and Science Administration (WSA) at Maryland Department of the Environment (MDE), please consider this letter enthusiastic support for the Fleming Park project. Last year, MDE issued guidance for the innovative and beneficial reuse (IBR) of dredged material to support the State's larger waste reduction and resource recovery goals formalized by Maryland Governor Larry Hogan's Executive Order (EO 01.01.2017.13). The Governor's EO specifically highlights IBR of dredged material and building partnerships for sustainable materials management.

The Fleming Park project is cutting-edge, real world implementation of Maryland's waste reduction and IBR goals that also meets local community needs and aspirations. By using dredged material thin layer placement techniques to create wetlands as well as incorporating upland reuse for public recreation the Fleming Point project will provide multiple ecosystem and community health benefits. At the same time, the living shoreline component of this project builds climate resiliency into the design to create a dynamic land-water interface that can adapt to changing environmental conditions and protect the community from storm related impacts.

WSA regulates impacts to tidal wetlands and other waters of the State and recognizes the difference between projects designed to improve water quality and projects designed to minimize impacts to water quality. Fleming Park will improve water quality conditions in the urban environment and create a treasured community asset for generations. As such my team and I are committed to working with the designers to see this project to completion.

Best Regards,

*Matthew Rowe*  
Matthew Rowe, Assistant Director  
Water and Science Administration

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www.mde.maryland.gov

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376 WEST PADONIA ROAD, SUITE 200  
TOWSON, MD 21286  
(410) 828-2701  
Fax: (410) 828-2708  
www.dutch.house.gov

Congress of the United States  
House of Representatives  
Washington, DC 20515-2002

September 5, 2018

Mr. Thomas P. Smith  
Chief, Operations and Regulatory Division  
United States Army Corps of Engineers  
Directorate of Civil Works  
Operations and Regulatory Community of Practice  
Attn: CECW-CO-OD  
441 G Street, NW  
Washington, DC 20314

Dear Mr. Smith:

I am writing to express my full support for the application submitted by the Turner Station Conservation Team to receive funds for the Fleming Park Urban Thin Layer Placement Pilot Project. The acquisition of a grant for this project will support innovative reuse and beneficial use of dredged material.

The Fleming Park Project aims to use dredged material from the Baltimore Harbor federal navigation channel to create enhanced wetland ecosystems for Fleming Park's intertidal zone as well as landforms for a children's play area. This project will promote public safety, recreation, reduce storm damage, and stabilize and enhance both shorelines and the communities surrounding them. The Turner Station community has a rich, historical relationship with the Chesapeake Bay, and this cutting-edge pilot project will restore the community's access to its waterfront, after years of limited access.

I trust you will give the Turner Station Conservation Team's grant application the utmost consideration, and ask that you keep me informed as awards are made. Thank you for your attention to this matter.

Sincerely,

*C.A. Dutch Ruppensberger*  
C.A. Dutch Ruppensberger  
Member of Congress

COMMITTEE ON APPROPRIATIONS  
SUBCOMMITTEES  
DRINKING WATER  
STATE, FOREIGN OPERATIONS, AND RELATED AGENCIES  
HOMELAND SECURITY  
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Design with Dredge Partners  
July 20, 2018  
Page 2

project implementation, Baltimore County recognizes the need for cross-sector collaboration that engages industry experts, regulators, and community stakeholders in direct dialogue.

As such, the County enthusiastically supports the research, outreach, and vision of the Design with Dredge program, which includes among its collaborators the Turner Station Conservation Teams, Chesapeake Bay Foundation, Mahan Rykiel Associates, Cornell University, the Maryland Port Administration, and others. In furtherance of the important work of this established coalition, Baltimore County is prepared to participate positively in a discovery and due diligence process to explore the Fleming Park shoreline restoration and community resiliency pilot project in Turner Station. The County is hopeful that through its collaboration with the Design with Dredge program it can improve the quality of the environment and the quality of life for its residents and set an example for the kind cost-effective, co-benefit projects that are essential to a vibrant Chesapeake Bay region.

Sincerely,

*Donald I. Mohler III*  
Donald I. Mohler, III  
Baltimore County Executive



DONALD I. MOHLER III  
County Executive

July 20, 2018

Dear Design with Dredge Partners,

The County would like to express its appreciation for the work you have done to build a coalition of support aimed at pioneering community-based shoreline restoration and resiliency strategies that beneficially and innovatively use and reuse dredged material. The diversity of your coalition including local community organizations, regional non-profits, government agencies, and private sector experts is a testament to your dedication and model for the type of collaboration necessary to realize cutting edge projects. To that end, we are happy to write you this letter of support with the intention that it can garner additional resources to propel the partnership and its projects forward and bring environmental, economic, and social benefits to the County, its citizens, and the entire Chesapeake Bay region.

Baltimore County is home to 219 miles of tidal shoreline and 2,145 miles of streambanks, which provide its residents with a range of recreational opportunities, economic advantages, and unparalleled natural beauty. These natural assets also heighten the risk of flood events in the County and increase annual environmental management costs. As such, the County is excited to explore the potential of innovative landscape strategies and project opportunities that beneficially use and innovatively reuse dredged material to enhance coastal resiliency, public recreation, habitat restoration, and economic development, such as the community-supported shoreline restoration effort proposed for Fleming Park in Turner Station. Your support will be critical to ensure that the County and its partners have the resources and expertise to effectively advance the design, project management, data analysis and technical evaluation of these cutting edge strategies and to quantify the environmental, economic, and social benefits they offer to the County, its citizens, and the entire Chesapeake Bay region.

Emerging technologies in landscape architecture, ecological design, and sustainable construction present new methods for cost-effective project implementation that align with environmental justice and water quality goals, as well as the updated regulatory guidance for dredged material management prepared by the Maryland Department of Environment and the Governor's 2017 Waste Reduction/Resource Recovery Plan Executive Order (01.01.2017.13). To realize the social, ecological, and economic benefits associated with the beneficial use and innovative reuse of dredged material in public landscape projects and to resolve any hurdles to

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March 8, 2018

Mr. Thomas P. Smith  
Chief Operations and Regulatory Division  
U.S. Army Corps of Engineers  
Directorate of Civil Works  
Operations and Regulatory Community of Practice  
Attn: CECW-CO-OD  
441 G Street, NW  
Washington, DC 20314

Re: RFP for Beneficial Use of Dredged Material – Fleming Park Project

Dear Mr. Smith:

TradePoint Atlantic (TPA), the owner, manager and developer of Sparrows Point, the former home of Bethlehem Steel in Southeast Baltimore County strongly supports the Turner Station Conservation Team submission to the USACE RFP. TPA has taken on the challenge to clean up and remediate the environmental impact of a century of steel-making to prepare the site for re-development.

As we work to remake and reposition Sparrows Point into a global center of excellence and a leading tri-modal transportation, distribution, manufacturing and logistics hub, we look forward to working closely with the Turner Station community to help realize the benefits of their proposed project. Real world applications of beneficial reuse of dredge material are critical to the future and successful operation of the Port of Baltimore, and as a private terminal within the port, we strongly believe in opportunities to demonstrate the beneficial reuse of dredged material.

Successful implementation of the Fleming Park project will create new avenues for industry partners like TPA to beneficially use and innovatively reuse dredged material. TPA sees the proposed Fleming Park pilot project as a vehicle to enhance our collaboration and partnership opportunities with the Turner Station community. The Fleming Park project is unique because it aims to return social, economic and environmental benefits to the community and the Baltimore-Chesapeake Region, a mission of both TPA and Turner Station Conservation Team.

Sparrows Point has a rich shared legacy with the Turner Station community, and we are proud to continue that legacy as we explore a unique opportunity to collaborate on this important project. We urge your support and thank you for your careful consideration.

Sincerely,

*Aaron Tomarchio*  
Aaron Tomarchio  
SVP, Administration & Corporate Affairs

# THANK YOU!

WEDA 2019 | Chicago, IL

Isaac Hametz

Principal/Research Director

*ihametz@mahanrykiel.com*

**MAHAN RYKIEL**  
ASSOCIATES INC

Brian Davis

Assistant Professor

*brd63@cornell.edu*

