Waterfront Partnership of Baltimore

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Waterfront Partnership History

The creation of Waterfront Partnership was driven by aging and poorly maintained infrastructure in the Inner Harbor.
Waterfront Partnership History

Great Baltimore Committee
2003 Report
Managing Baltimore’s Inner Harbor Operations

Inner Harbor Advisory Committee
2005 Report
A Proposal to Create an Inner Harbor Management District

Key Board Members

Private
• Mike Hankin, Brown Advisory
• Van Reiner, Maryland Science Center
• Mike Beatty, Harbor Point Development
• Zed Smith, Cordish Company

Public
• Assistant Deputy Mayor
• Director of Public Works
• Director of Recreation and Parks
• Director of Transportation
• Police Commissioner
Waterfront Partnership Boundaries
Waterfront Services

Clean Team
Waterfront Services

Safety & Hospitality Guides
Waterfront Services

Green Team
Waterfront Services

Harbor Harvest 2010

Milkshake at Harbor Harvest 2011

Charm City Yoga

Marketing
Waterfront Services

Walter Sondheim Fountain
Waterfront Services

Pierce’s Park
A Plan to make Baltimore Harbor Safe for Swimming and Fishing by 2020
Why is the Harbor Polluted?

- TRASH
- BACTERIA
- POLLUTED STORMWATER RUNOFF
**Healthy Harbor Report Card**

**Baltimore’s Annual Healthy Harbor Report Card 2012**

**Indicator of Health:**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012 Grade</th>
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<tbody>
<tr>
<td>Chlorophyll a</td>
<td>D-</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>C-</td>
</tr>
<tr>
<td>Water Clarity</td>
<td>D+</td>
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<tr>
<td>Total Nitrogen</td>
<td>C-</td>
</tr>
<tr>
<td>Total Phosphorus</td>
<td>C+</td>
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**Overall Baltimore Harbor Grade:** C-

- Inner Harbor Region: C-
- Middle Branch Region: D+
- Mainstem Patapsco Region: D+
Bacteria (Enterococci) Scores
percentage of time water sample met the swimming standard

- ★ 100%
- + 90% to 99%
- ◇ 80% to <90%
- ▲ 70% to <80%
- ▲ 60% to <70%
- ✗ <60%
Strategies for Addressing Bacteria

There is no poop fairy.

Please clean up after your dog.

Dog waste doesn’t biodegrade like wild animal waste. It sticks around for a long time. Meanwhile, it contains harmful bacteria, pollutes groundwater, and smells disgusting on the bottom of a shoe. Please help keep parks, trails, and neighborhoods free of poop piles by packing out your dog’s waste.

A message from Jefferson County Animal Control and your local park district. Visit http://animalcontrol.jeffco.us

jefferson county sheriff
Strategies for Addressing Trash
Strategies for Addressing Polluted Stormwater
Harbor as a Living Laboratory Learning Center

Potential Rain Gardens
Floating Wetlands  Pierce’s Park Rain Gardens  Jones Falls Water Wheel

Potential Green Roofs  Potential Rain Gardens  Chase Pier Waterfalls & Wetlands
Floating Wetlands
Floating Wetlands
A closer look

1. Wetland plants thrive on these floating islands, providing habitat above and below the surface of the water for birds, pollinators and aquatic life.

2. Seeds from the native plants get dispersed in the water and by birds. Floating wetlands become a native seed bank for the region!

3. Used, plastic bottles are sandwiched between “media” (like coconut fiber) in which the wetland plants will grow. The bottles provide buoyancy for the wetland and a good use for trash.

4. Fish and other aquatic creatures find habitat and refuge in the plant roots, where shade, shelter, and food abound.

5. Wetland plant roots remove polluting nutrients from the water and use them to grow.

A living community called “biofilm” develops on the roots and media. It is teeming with microorganisms and young bivalves, which actively filter and clean the water.
Harvesting the floating wetlands, December 2012
Harbor as a Living Laboratory Learning Center

- Potential Rain Gardens
- Floating Wetlands
- Pierce’s Park Rain Gardens
- Jones Falls Water Wheel
- Potential Green Roofs
- Potential Rain Gardens
- Chase Pier Waterfalls & Wetlands
Pierce’s Park site before construction
Pierce’s Park site after construction
One of four large rain gardens in Pierce’s Park
PIERCE'S PARK RAIN GARDENS

What is a rain garden?
A rain garden is a **special kind of garden** that is designed to collect rainwater. It is planted with **species of plants native to our region** that love to absorb the rain.

Below the plants are layers of mulch, soil, sand and gravel that filter pollution from the water as it soaks into the ground.

An underground pipe collects any water not absorbed by the plants or ground and carries it into Baltimore Harbor.

This simple system helps to clean up the Harbor and Chesapeake Bay while providing a beautiful and relaxing atmosphere for Pierce's Park.

These rain gardens are part of the Healthy Harbor Initiative, which aims to make Baltimore Harbor swimmable and fishable. You may be able to install a simplified version of this rain garden in your own yard, but even if you can’t you can still help clean up the Harbor and Chesapeake Bay. For more information on how to get involved visit [www.HealthyHarborBaltimore.org](http://www.HealthyHarborBaltimore.org).
Rain and runoff flow in

Water ponds for a short time

Mulch

Plant roots and special soils filter and remove pollutants

Infiltration

Gravel

Underdrain connects to the storm drain system and the Harbor
The original Water Wheel is no longer in use because it was determined to be too small for the amount and size of debris coming down the Jones Falls.
Jones Falls Water Wheel

Design inspiration for a new Water Wheel
Jones Falls Water Wheel
Jones Falls Water Wheel
Jones Falls Water Wheel
Harbor as a Living Laboratory Learning Center

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Chase Pier Wetlands & Waterfalls
Chase Pier Wetlands & Waterfalls

Current conditions
Chase Pier Wetlands & Waterfalls

Proposed project
Chase Pier Wetlands & Waterfalls

**Design Elements**

1. Waterfalls
   1. A solar pavilion on the shore powers pumps
   2. Harbor water is pumped from below the Pier into a flow splitter pipe
   3. Water fills the waterfall trough and overflows
   4. The overflowing water is broken up by a splash made of rough materials, aerating the water as it flows back into the Harbor

2. Constructed Wetland
   1. A kinetic sculpture harnesses wind to power a pump
   2. Harbor water is pumped from below the Pier into a perforated distribution pipe
   3. The perforated distribution pipe distributes water into a lined wetland cell, below the surface of wetland media
   4. Water flows sub surface through the media and plant roots through the wetland cell (the Pier will be divided into 2 or 3 lined cells)
Chase Pier Wetlands & Waterfalls
Harbor as a Living Laboratory Learning Center

Oysters

Oysters

Oysters

Oysters

Oysters
Inner Harbor Oyster Gardening
Healthy Harbor
Upstream activities
Spread the word through signage
Stencil a storm drain
Stencil a storm drain
Communication

• Healthy Harbor Steering Committee
  • Co-chaired by Waterfront Partnership and Department of Public Works
  • nonprofits, businesses, City and State government

• Trash Work Group
  • Waterfront Partnership
  • Blue Water Baltimore
  • Parks & People
  • Surface Water Management
  • Housing and Code Enforcement
  • Solid Waste

• WatershedStat
  • Lead by the Mayor’s CitiStat team
Thank you!

Questions?

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