

# Masonville Cove: A Decade of Dedication

The Maryland Department of Transportation Maryland Port Administration (MDOT MPA) is pleased to submit this nomination “Masonville Cove: A Decade of Dedication” to AAPA’s 2019 Environmental Improvement Award program. The story of Masonville Cove is truly a unique and outstanding example of *Environmental Mitigation, Environmental Enhancement, and Stakeholder Awareness, Education and Involvement*. In 2018 MDOT MPA identified and planned a variety of new activities and programs, building on the strong foundation and relationships already in place, to celebrate Masonville Cove’s Decade of Dedication throughout 2019. Today, ten years after the site opened to the public, all environmental mitigation and restoration work is being completed and MDOT MPA and the citizens of Baltimore are realizing the full impact of the benefits and opportunities afforded by this tremendous resource.

## **SUMMARY**

A Decade of Dedication at Masonville Cove by the MDOT MPA demonstrates an ongoing willingness to go above and beyond a project’s required environmental mitigation, to identify meaningful and successful environmental enhancements and a continued commitment to stakeholder engagement, education and community involvement uniquely focused on diversity and inclusion. Over ten years ago, several non-traditional partners, led by the MDOT MPA, began work to transform Masonville Cove from a contaminated, illegal dumping site in Baltimore, MD into what would later be designated by the U.S. Fish and Wildlife Service (USFWS) as the nation’s first Urban Wildlife Refuge Partnership. The restoration of the debris-laden site and the formation of a strong Masonville Cove partnership sparked

education and enhancement projects that continue to provide equitable access, all while educating thousands of underserved students and community members each year, thus creating the next generation of environmentally conscious leaders.

Prior to 2009, Masonville Cove's shoreline had been inaccessible for 70 years because of physical and environmental hazards, with over 60,000 tons of debris, including materials from the Great Baltimore Fire of 1904. In three phases over the last ten years, it has since been transformed by the MDOT MPA, into a publicly accessible green space which includes an energy-efficient nature center with classroom and laboratory space, and an outdoor education campus with a fishing pier, walking trails, and tidal and non-tidal wetland areas, all soon-to-be protected by a conservation easement held by a community land trust. Benefits extend far beyond the boundaries of the site, as a result of MDOT MPA investments in numerous off-site environmental mitigation projects that include solar compacting trash cans and three world-renowned trash wheels, in addition to undertaking comprehensive on-site environmental mitigation and restoration.

This year marks a Decade of Dedication at Masonville Cove, and MDOT MPA and its partners (USFWS, the National Aquarium, and Living Classrooms Foundation) are celebrating the ongoing environmental, economic and societal benefits, as well as the dedication of local leaders, partners, and commitment from the MDOT MPA that gives this outstanding collaborative project such staying power.

## GOALS AND OBJECTIVES

By providing equitable community access to the recently completed final restoration efforts, implementation of all off-site mitigation initiatives and through transformational opportunities for student engagement in habitat restoration, environmental education, and school and community sustainability, the partners at Masonville Cove, led by MDOT MPA, strive to empower the next generation of environmental and community stewards.

Stewardship is at the core of the overarching Decade of Dedication to Masonville Cove campaign; specific objectives include:

1. Increasing awareness of and access to Masonville Cove by implementing programs that target underserved communities;
2. Strengthening existing partnerships, and developing new ones to support and amplify MDOT MPA's outreach and education activities while building a strong financial and community resource base;
3. Providing educational and recreational opportunities for students and community members through a variety of new and creative outdoor experiences to groom environmental stewards;
4. Facilitating professional development of teachers, and training for volunteers and community leaders to become effective ambassadors to young people to increase the conservation constituency; and
5. Improving and maintaining natural habitat in this urban landscape for the benefit of wildlife and people.

## **DISCUSSION**

The Port of Baltimore, often referred to as “the Port that built a city”, is one of the busiest on the East Coast, in a highly urbanized city with a jagged environmental justice history. The Port is dedicated to working to help Baltimore thrive by committing to innovative solutions to some of the city’s most complex challenges that directly align with the mission of the MDOT MPA – to encourage the flow of cargo through the state of Maryland in a manner that benefits all citizens of Maryland.

## **BACKGROUND**

To mitigate impacts from construction of the Masonville Dredged Material Containment Facility (DMCF), used to contain sediments dredged from Baltimore Harbor’s shipping channels, the MDOT MPA worked with the neighboring communities to identify mitigation projects that would also serve as community enhancements or benefits that would be meaningful for the impacted citizens. During our outreach efforts in the neighboring communities, we learned how Masonville, named for an extinct railroad town, was once a site for recreation, picnicking, fishing and boating by the local residents. Once the area was cut-off by the rail lines, and then the highway, and now a truck route, the residents could no longer access the area, let alone enjoy it anymore. This waterfront property, separated from its residential neighbors, quickly became an industrial dumping ground over-run with debris and contamination. Hearing from the citizens that their top priority was finding safe access back to the water for community enjoyment and passive recreation, the MDOT MPA launched an extensive environmental restoration of the property and built partnerships to further enhance the visitor experience and develop a strong identity for the site. Working together with our partners every step of the way the MDOT MPA built the Masonville Cove Environmental Education Center (MCEEC),

provided seed funding for environmental education programs, camps and activities at the Cove and in the nearby communities, and provided funding for five trash interceptor projects, including over two hundred solar powered compacting trash cans and recycling bins throughout the neighborhoods and a fleet of world-renowned trash wheels which reduce debris in the waters surrounding Baltimore.

The urbanized neighborhoods adjacent to Masonville Cove are rich with demographic diversity, but have high incidences of crime, poverty, and unemployment. The MDOT MPA's work with these communities created an opportunity for residents and schoolchildren to connect with their natural environment and participate in meaningful stewardship, scientific research and restoration projects related to Masonville Cove and the Chesapeake Bay. Non-profit partners, including the National Aquarium and Living Classroom Foundation, and a strong federal partner, the USFWS host free indoor and outdoor environmental programming that is inclusive of residents of all ages and ethnic backgrounds. They also work with neighboring schools, providing programming and technical assistance, building their capacity to work towards Maryland Green School certification. For example, in 2010, the then principal at nearby Benjamin Franklin High School felt so impacted by the potential to partner with the Port at Masonville Cove, she successfully advocated to change the name of the school to Benjamin Franklin High School at Masonville Cove. This powerful partnership and participation in programs at the MCEEC also helped the school achieve its Maryland Green School certification in 2013, which is a school-wide, student-driven environmental stewardship program.

The restoration of Masonville Cove serves as a national model for taking environmental mitigation beyond the minimum requirements to build strong community engagement, create transformational community partnerships, and collaboratively develop relevant and relatable programs that increase outdoor education in urban areas. This environmental mitigation and enhancement project has transformed one of Baltimore Harbor's most contaminated sites into an area that benefits people, wildlife, and the Port. A Decade of Dedication at Masonville Cove serves as a culminating opportunity to recognize these accomplishments, thank the partners, celebrate the successes and reach new supporters.

## **METHODOLOGY**

To achieve the goals and objectives described above, MDOT MPA worked in partnership with USFWS and Living Classroom Foundation and National Aquarium, two leading local nonprofit organizations whose missions align with the environmental education vision for Masonville Cove. In partnership, they have planned, developed, and are implementing environmental and wellness programs open to the public, while targeting residents of the Brooklyn, Curtis Bay, Cherry Hill communities that are immediately adjacent to Masonville Cove. The partnership provides year-round environmental education programs, shoreline clean-ups and wetlands planting events, and recreation opportunities to community residents, including adults, preschoolers and school-aged children. Programs are structured to provide multisensory and open-ended experiences tied to National and State life and environmental science curricula standards, giving participants the opportunity to be creative and explore nature and concepts.

Programs are advertised through a variety of means in both English and Spanish, including flyers (see attached examples), newsletters (see attached examples), newspapers, and via social media. In addition, program attendance, attitudes towards programs, and accessibility are tracked. Free shuttles are often provided to help break down physical barriers to access due to a lack of direct public transportation and a safe route for pedestrians and cyclists. Staff also represent the MDOT MPA and Masonville Cove at community meetings and events and work with partner organizations to create new opportunities for community participation at Masonville Cove.

## **AWARD CRITERIA**

This project exemplifies all six of the award criteria, as discussed below:

### **1. Nature of benefits to environmental quality, beautification or community involvement**

The restoration of Masonville Cove serves as a model for community engagement, creating transformational community partnerships and collaboratively developing relevant and relatable programs that meet environmental needs and community interests. What began as a required environmental mitigation and restoration project, has transformed one of the Patapsco River's most contaminated sites into an area that benefits people, provides healthy habitat for diverse wildlife, and supports the Port of Baltimore. Masonville Cove is literally better because a diverse group of stakeholders came together and created a vision to transform the area, to have a positive impact on the adjacent communities and their residents, all while helping the Port of Baltimore thrive. By working with local communities, the DMCF at Masonville was built quicker than any other in Maryland, saving

taxpayers millions of dollars and providing environmental and community benefits beyond the Port's mandated requirements.

## **2. Independent involvement and effort by the port**

The MDOT MPA initiated the project at Masonville Cove and serves as the landowner, landlord and lead partner in the project. MDOT MPA will maintain the success of the environmental remediation and mitigation at Masonville Cove in perpetuity. MDOT MPA funded the design and construction of the DMCF, associated on and off-site environmental mitigation and community enhancements projects, including the restoration of 54 acres of land, 70 acres of in-water habitat and building the MCEEC. Additionally, MDOT MPA has provided over \$2 million in grant funding to support operations and educational programs at the MCEEC, and worked with community partners, specifically the Living Classrooms Foundation, the National Aquarium in Baltimore, and USFWS to coordinate the long-term role of the education center. MDOT MPA is committed to ensuring the original vision of the project is achieved, implementing programs and developing outreach and educational products (see attached examples) to extend and maximize the site's reach in celebrating the Decade of Dedication to Masonville Cove and partnering to ensure the long-term overall success of the project.

## **3. Creativity of the solution or programs**

Leaders at MDOT MPA recognized that their dredged material management projects and solutions would be more successful when they used strategies that maximize inclusive and productive stakeholder engagement. They embraced collective impact and included stakeholders in all phases



(site identification, design, implementation, and assessment) of this project. It was a creative and new way of doing business for MDOT MPA, and a daunting task to bring together numerous and diverse stakeholders who held different agendas, viewpoints, and goals. However, MDOT MPA brought these stakeholders together early, frequently and with transparency, developed consensus via negotiation and inclusive decision-making that incorporated all stakeholders' values and viewpoints, and resulted in better and longer lasting outcomes.

#### **4. Project or program results**

The original and ongoing stakeholder engagement process, which has led to a Decade of Dedication to Masonville Cove, accomplished more than expediting the approval of a DMCF. It also conferred very real benefits on local residents, which they would not have enjoyed without this inclusive process.

Outcomes resulting from a decade of environmental mitigation, enhancements and community programs include improved access to and awareness of the local environment, wildlife habitat and environmental restoration; changes in attitude regarding the environment; and an increased sense of stewardship of the environment and the Port of Baltimore. Feedback from participants indicate they feel a connection to the site and have a sense of ownership, which may lead to additional participation in program offerings at this site as well as other local nature centers, even extending to the green spaces in their own neighborhoods and beyond to the entire Chesapeake Bay Watershed.

Provided here are some indicators of meaningful impact to highlight the accomplishments from the many programs and services resulting from a Decade of Dedication to Masonville Cove:

## **Education**

- 35,000 students served at their schools and at Masonville Cove over 10 years
- Education Festivals each spring serve approximately 400 students totaling 4,000 over 10 years
- Over 50 high school and college level interns in 10 ten years
- Support for area schools to obtain Green School certification and re-certification.

## **Community/Stewardship**

- 10,000 visitors, many participating in free community programs, walking the nature trails, and enjoying the fishing pier
- 4,000 volunteers donating over 20,000 sweat equity hours to shoreline clean-ups and shoreline shrub and wetland grasses plantings
- Partnerships (a growing list of federal, state, local, non-profits and individuals) including a Citizens Advisory Committee and formation of a Friends of Masonville Cove group

## **Environmental**

- Over 61,000 tons of trash and debris cleared from the site
- 20 acres of shallow water habitat restored
- 52 acres of terrestrial habitat restored, with 8,300 feet of trails created
- 4 acres of tidal wetlands created; 2 acres of tidal wetlands enhanced
- 5 acres of non-tidal wetlands created
- 73 acres of reef and fish habitat enhanced
- 2,000 reef balls placed throughout the Cove in the Patapsco River

- 222 plant and animal species identified (as part of the National Aquarium’s annual BioBlitz event where citizens become scientists for a day and help identify new species at the Cove)
- 230 bird species recorded at Masonville Cove, making it No. 3 on the Baltimore eBird list of hot spots, which now includes the only known pair of nesting bald eagles in Baltimore City. The nesting pair of bald eagles arrived in December 2018 and two eaglets hatched in April 2019.
- Provided funding for the trash wheel in Masonville Cove as well as two (soon to be three) additional world-renowned trash wheels in the surrounding Baltimore Harbor area.
- Captain Trash Wheel, located at Masonville Cove, has removed 11 tons of floatable debris helping reduce trash in the waters surrounding Baltimore. MDOT MPA led a naming contest for Captain Trash Wheel with neighboring community groups and schools. The top five names were voted on by the public over social media.

## **5. Cost effectiveness**

When MDOT MPA announced its plans to build a DMCF connecting Hart and Miller Islands in the 1970s, the affected neighboring communities fought the project all the way to the Supreme Court. The state ultimately won the legal battle and construction of the dike was completed in 1984, but seven years behind schedule and at a current-dollar cost five times greater than originally estimated. To avoid repeating this experience, the MPA concluded that future dredged material placement plans should proceed with thorough stakeholder engagement at the outset of the process.

The benefits of the Masonville Cove stakeholder engagement process are enjoyed by the residents of Baltimore and the surrounding neighborhoods. The MCEEC is educating thousands of students and community residents each year. Initial seed funding for programming at Masonville Cove, provided by MDOT MPA, has been matched over the past decade 2:1, with cash and in-kind services garnered by partners to double the impact, generating \$4M for programming at Masonville. Detailed analysis has shown that benefits of comprehensive stakeholder engagement at Masonville Cove clearly exceeded the costs, appears to be driving down costs of subsequent dredging projects, and is producing successful and lasting outcomes.

## **6. Transferability of the idea to the port industry**

The best practices and lessons learned at Masonville Cove are highly relevant to all Ports in today's environment of globally sustainable port initiatives, engaged and active citizenry, budget constraints, and streamlined operations. Partnerships can help conserve and leverage resources and amplify the impact of the collective and individual work of each partner no matter the location.

Ports across the county will benefit from forging innovative collaborations, convening stakeholders, and engaging other governmental partners to implement transformative projects that empower communities and increase the visibility of Ports as long-term stewards of their local economies, their environment, and local communities.

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