

***Delaware Riverkeeper Network ~ Clean Air Council ~ PennFuture  
Environment New Jersey ~ PennEnvironment ~River Network  
Bartram's Garden ~ Glen Foerd on the Delaware  
Darby Creek Valley Association ~ Clean Water Action***

March 2, 2020

Steve Tambini, Executive Director  
Commissioners  
Delaware River Basin Commission  
PO Box 7360  
West Trenton, NJ 08628

Dear Executive Director Tambini and Commissioners,

On behalf of the organizations below, we would like to submit the attached petition requesting that you upgrade the designated use of Zone 3 and River Miles 95.0 to 81.8 of Zone 4 of the Delaware Estuary to include primary contact recreation. Zone 3 and Upper Zone 4 are currently designated only for secondary contact recreation.

We would appreciate the opportunity for representatives from our organization to be able to meet with you to discuss this matter and potential next steps.

With regards,

*Maya K. van Rossum, the Delaware Riverkeeper, Delaware Riverkeeper Network  
Joseph Minott, Executive Director, Clean Air Council  
Jacquelyn Bonomo, President & CEO, PennFuture  
Doug O'Malley, Executive Director, Environment NJ  
David Masur, Executive Director, PennEnvironment  
Katherine Baer, Director of Science and Policy, River Network  
Chloe Wang, River Programs Coordinator, Bartram's Garden  
Rupika Ketu, Environmental Program Coordinator, Glen Foerd on the Delaware  
Susan Miller, Executive Director, Darby Creek Valley Association  
Amy Goldsmith, State Director, Clean Water Action*

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Commissioners  
Delaware River Basin Commission  
P.O. Box 7360, 25 Cosey Road  
West Trenton, NJ 08628

Dear Commissioners,

The Delaware Riverkeeper Network (“DRN”), Clean Air Council (“CAC”), PennFuture, Environment New Jersey, PennEnvironment, River Network, Bartram’s Garden, Glen Foerd on the Delaware, Darby Creek Valley Association, and Clean Water Action (collectively, “Petitioners”) submit this petition to urge the Delaware River Basin Commission (“DRBC” or “the Commission”) to promptly upgrade the designated use of Zone 3 and River Miles 95.0 to 81.8 of Zone 4 of the Delaware Estuary to include primary contact recreation. Zone 3 and Upper Zone 4 are currently designated only for secondary contact recreation. This designation is inconsistent with the existing uses of these portions of the Delaware River. A designation that includes primary contact recreation is needed to bring DRBC into conformance with the mandates of the Clean Water Act, thereby avoiding state, federal and/or interstate conflicts over the designated and existing uses of these Delaware River waters, and protecting those recreating on and in this portion of the Delaware River. Recognizing the existing use of primary contact recreation will ensure the DRBC and the member states prioritize putting in place, and enforcing, the standards and protections essential for those who are enjoying these reaches of the River for primary contact recreation.

Petitioners are organizations that serve communities who live, work, and recreate in the Delaware River Watershed and have a strong interest in seeing the public’s uses of the River protected. Petitioners share a common interest in promoting the health and enjoyment of the Delaware River for the benefit of the public. Upgrading the designated use of Zone 3 and Upper Zone 4 of the Delaware Estuary to reflect the full array of their existing recreational uses, including primary contact, is necessary to protect the communities we serve and the health of the waterways our members rely on.

**1. Context for this Petition.**

The Clean Water Act of 1972 set forth a goal to achieve water quality sufficient to support protection and propagation of fish, shellfish, and wildlife and recreation in and on the

water by 1985.<sup>1</sup> This was an ambitious goal for many of our nation's waters, including the tidal Delaware River. Before the passage of the Act, the tidal Delaware River had borne years of pollution and could barely sustain aquatic life. However, with implementation of the Clean Water Act as well as the actions of the DRBC and proactive efforts by concerned and impacted communities, conditions have improved. In order to comply with the Clean Water Act, designated uses of the Delaware Estuary located between mile markers 108.4 and 81.8, which includes all of Zone 3 and River Miles 95.0 to 81.8 of Zone 4 must be amended to reflect these improvements in water quality and the ongoing uses of the River.

As you are aware, the Delaware River has come a long way from its polluted past in the late 1800s to mid 1900s. Even as late as 1964, on the order of a million pounds of waste was being freely discharged into the Delaware River every day, and more than 60 percent of that was coming from sewage treatment plants, predominantly from Philadelphia, Camden, and Wilmington. In that same year, the bacteria count at Philadelphia's water intake at Torresdale was 39,300 fecal coliform units per 100 mL.<sup>2</sup> In addition, slaughterhouse waste, chemical plant waste, and acidic industrial waste were also freely dumped into the River. The excessive nutrients and bacteria rapidly depleted dissolved oxygen levels in the River, which had detrimental impacts for fish and other wildlife species. Anadromous fish such as American shad, striped bass, and Atlantic sturgeon were severely compromised and nearly disappeared because the wall of depleted dissolved oxygen in this stretch of the River near Philadelphia wiped out spawning grounds, prevented upstream migration, and killed out-migrating young. The excess bacteria was also harmful to the health of those who used the river for fishing, boating, and bathing. After the passage of DRBC's Water Quality Regulations in 1967 and the Clean Water Act in 1972, which regulated wastewater treatment, the water quality in the tidal Delaware River began to gradually improve in the years to follow.

While there is still much work to be done, the water quality of the River throughout the Delaware Estuary has now significantly improved. Despite this, DRBC currently does not give primary contact swimmable protection to Zones 3 and 4 above RM 81.8, and yet, it is well documented that this reach of river is widely used for primary contact recreational uses.

## **2. Legal Background**

### *a. The role of DBRC in protecting water quality in the Basin.*

Following the entry of a consent decree in *New Jersey v. New York*, 347 U.S. 995 (1954), the States of New York, New Jersey, Pennsylvania, and Delaware and the federal government negotiated the Delaware River Basin Compact, which entered into force in 1961. The Compact created the DRBC to conserve and manage the resources of the Delaware River.

The purposes of the Compact are:

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<sup>1</sup> 33 U.S.C. § 1252(a)(2); U.S. Environmental Protection Agency, *Watershed Academy Web - Introduction to the Clean Water Act*, <https://cfpub.epa.gov/watertrain/pdf/modules/introtocwa.pdf> (accessed January 21, 2020).

<sup>2</sup> Bate, Dana, "The Death of the Delaware River," *WHYY*, January 15, 2019, <https://whyy.org/articles/the-death-of-the-delaware-river/> (accessed January 21, 2020).

to promote interstate comity . . . to provide for cooperative planning and action by the signatory parties with respect to such water resources; and to apply the principle of equal and uniform treatment to all water users who are similarly situated and to all users of related facilities, without regard to established political boundaries.<sup>3</sup>

The Compact directs the Commission to adopt a water resources program, based upon the comprehensive plan that “shall include a systematic presentation of the quantity and quality of water resource needs. . . .”<sup>4</sup> The Compact further provides that the Commission “may classify the waters of the basin and establish standards of treatment of sewage, industrial or other waste, according to such classes including allowance for the variable factors of surface and ground waters, such as size of the stream, flow, movement, location, character, self-purification, and usage of the waters affected.”<sup>5</sup>

In order to fulfill its obligation, DRBC set forth water quality regulations articulating water quality standards for the Delaware River Basin in its Comprehensive Plan.<sup>6</sup> In maintaining such water quality standards, the Commission may need to amend the water classifications from time to time in order to protect the public health or to preserve the waters of the basin for the uses in accordance with the Comprehensive Plan.<sup>7</sup>

In order to fulfill their obligation under the Clean Water Act to designate uses for surface waters, the States of Delaware and New Jersey and Pennsylvania either defer to DRBC water quality standards or provide for application of the more stringent of state and DRBC standards within the basin.

*b. Water Quality Standards define the goals and pollution limits for waters.*

Composed of designated uses, water quality criteria, and an antidegradation policy, water quality standards determine which healthy waters need protection, which waters must be restored, and how much they must be restored.<sup>8</sup> Consequently, water quality standards set a course for restoring and protecting a watershed over the long term. As described in DRBC’s water quality regulations, “Water uses shall be paramount in determining stream quality objectives which, in turn, shall be the basis for determining effluent quality requirements.”<sup>9</sup>

Accordingly, in developing water quality standards, DRBC begins by setting designated uses for each zone. Stream quality objectives and effluent limitations are then developed using the designated uses as a baseline. “It is the policy of the Commission to designate numerical

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<sup>3</sup> Delaware River Basin Compact § 1.3(e); Ibid, § 3.1 (“[The Commission] shall adopt and promote uniform and coordinated policies for water conservation, control, use and management in the basin.”); Ibid, Fifth Whereas Clause.

<sup>4</sup> Ibid, § 13.2.

<sup>5</sup> Ibid, § 5.2.

<sup>6</sup> Delaware River Basin Commission, *Comprehensive Plan*, Section I.C. Article 3.

<sup>7</sup> Ibid.

<sup>8</sup> 40 C.F.R. § 131.3(i).

<sup>9</sup> 18 C.F.R. 410 § 3.10.2.A.

stream quality objectives for the protection of aquatic life for the Delaware River Estuary and Bay (Zones 2 through 6) which correspond to the designated uses of each zone.”<sup>10</sup> Because pursuant to the DRBC Water Code, stream quality objectives and effluent limitations are calibrated to protect the designated, rather than actual, uses of each zone, existing uses will not receive protection unless those uses are formally adopted as designated uses. States (and thus DRBC) must revise a designated use whenever a designated use does not include any use that is currently taking place.<sup>11</sup> Among the designated uses that must be protected are recreational uses.<sup>12</sup>

### **3. Upgrading the designated uses is appropriate because primary contact recreation is an existing use throughout the identified portion of the mainstem.**

Under DRBC’s water quality regulations, recreational uses are divided into two categories. “Recreation,” which corresponds to “primary contact” recreation, includes all water contact sports.<sup>13</sup> “Secondary contact” recreation restricts activities to where the probability of significant contact or water ingestion is minimal, encompassing but not limited to: 1. boating, 2. fishing, 3. those other activities involving limited contact with surface waters incident to shoreline recreation.<sup>14</sup> EPA generally understands a primary contact classification to protect people from illness where people engage, or are likely to engage, in activities that could result in ingestion of, or immersion in, water.<sup>15</sup> Thus, activities such as swimming, water-skiing, skin-diving, and surfing are usually considered primary contact activities. However, kayaking, canoeing, and other on-water recreation, particularly when recreators are novice, heightening the likelihood of accidental immersion, are increasingly understood as primary contact uses.<sup>16</sup> Alternatively, a secondary contact recreation classification may be sufficient when immersion is unlikely.<sup>17</sup> Criteria protective of the primary contact designated uses are also protective of secondary contact uses. But, notably, criteria protective of secondary contact uses are not protective of primary contact uses.<sup>18</sup>

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<sup>10</sup> 18 C.F.R. 410 § 3.10.3.C.

<sup>11</sup> 40 C.F.R. § 131.10(i).

<sup>12</sup> 40 C.F.R. 131.10(a).

<sup>13</sup> 18 C.F.R. § 410.1.20.6.F.

<sup>14</sup> 18 C.F.R. § 410.1.20.6.G.

<sup>15</sup> U.S. Environmental Protection Agency, *Water Quality Standards Handbook – Chapter 2: Designation of Uses*, 2012, 2, <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter2.pdf> (accessed January 21, 2020).

<sup>16</sup> OHIO ADMIN. CODE §3745-1-07(B)(4)(b), [https://www.epa.ohio.gov/portals/35/rules/01\\_all.pdf](https://www.epa.ohio.gov/portals/35/rules/01_all.pdf) (accessed January 21, 2020); 9 VA ADMIN. CODE §25-260-5, <https://law.lis.virginia.gov/admincode/title9/agency25/chapter260/>; “Philly River Cast: A Daily Forecast of the Schuylkill River Water Quality in Philadelphia,” Philadelphia Water Department, [http://www.phillyrivercast.org/Nav\\_definition.aspx](http://www.phillyrivercast.org/Nav_definition.aspx) (accessed January 21, 2020); U.S. Environmental Protection Agency, *Watershed Academy Web - Introduction to the Clean Water Act*, [https://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent\\_object\\_id=1990](https://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent_object_id=1990) (accessed January 21, 2020). The report states, “Obviously, it can be difficult to draw distinct lines between these different activities, because the extent of exposure can be affected by factors such as the skill of the recreationist and weather conditions.”

<sup>17</sup> U.S. Environmental Protection Agency, *Water Quality Standards Handbook – Chapter 2: Designation of Uses* 2012, 2.

<sup>18</sup> Delaware River Basin Commission, *2018 Delaware River and Bay Water Quality Assessment*, 14, <https://www.state.nj.us/drbc/library/documents/WQAssessmentReport2018.pdf> (accessed January 21, 2020).

In 1988, the DRBC's Use Attainability Swimmability Report recommended that Zone 3 and Upper Zone 4 should retain secondary contact use with fecal coliform and *enterococcus* criteria of 770/100 mL and 88/100 mL, respectively.<sup>19</sup> Despite repeatedly recognizing that “. . . all types of primary-contact recreation currently occur in this reach during the recreation season,”<sup>20</sup> the report stated that primary contact use would be a future goal for these zones based on an evaluation and a firm commitment to a Combined Sewer Overflow (CSO) correction program.<sup>21</sup> DRBC included the recommendations of the Use Attainability Swimmability Report in its regulations for water use classifications and water quality criteria in 1991. DRBC's designated uses were included in Pennsylvania's regulations by reference in §§ 93.9e and 93.9g in 1994.

Today, thirty years later, with Philadelphia, Camden, and Wilmington all actively addressing their CSO problems, we know that primary contact recreation that involves the risk of water ingestion continues to take place and is increasing in all reaches of the Delaware River, including throughout Zone 3 and the upper reaches of Zone 4. And so the time has now come to formally and legally recognize and protect primary contact recreation in all of Zone 3 and Upper Zone 4.

Water skiing, wakeboarding, jet skiing, canoeing, kayaking, paddle-boarding, snorkeling, and swimming are primary contact recreation activities<sup>22</sup> that are currently taking place in Zone 3 and Upper Zone 4 of the River. Numerous organizations, including educational and cultural institutions and environmental groups, regularly host primary contact recreation programming in Zone 3 and Upper Zone 4 of the Delaware River.

The following profiles provide clear examples of on-water programming, as well as participation statistics and descriptions of the program participants' contact with the Delaware River.<sup>23</sup>

## **Profile 1: Independence Seaport Museum**

### **Background**

Independence Seaport Museum deepens the appreciation, understanding and experience of the Philadelphia region's waterways through history, science, art and community. With National Historic Landmark ships the Cruiser Olympia and the Submarine Becuna, a boatbuilding workshop, small boat rentals, hands-on exhibits, a new Citizen Science Lab, one of

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<sup>19</sup> Yagecic, J., “Recreational Uses & Criteria: Status and Developments,” DRBC Water Quality Advisory Committee, July 18, 2018, [https://www.nj.gov/drbc/library/documents/WQAC/071818/yagecic\\_recreational-criteria\\_DelEstuary.pdf](https://www.nj.gov/drbc/library/documents/WQAC/071818/yagecic_recreational-criteria_DelEstuary.pdf) (accessed January 21, 2020).

<sup>20</sup> Delaware River Basin Commission, *Report on the Attainability of Swimmable Water Quality*, December 1988, Delaware Estuary Use Attainability Project, DEL USA Project Element 19, 8.

<sup>21</sup> Yagecic, J. “Recreational Uses & Criteria: Status and Developments”.

<sup>22</sup> Delaware River Basin Commission, *Comprehensive Plan*, I.C. Article 3; OHIO ADMIN. CODE §3745-1-07(B)(4)(b);9 VA ADMIN. CODE §25-260-5; Yagecic, J. “Recreational Uses & Criteria: Status and Developments”

<sup>23</sup> Participation statistics and descriptions of contact with the Delaware River were obtained through interviews and e-mail correspondence with employees who manage on-water programs for each organization, in addition to other sources, such as news articles and organizational websites, as noted.

the largest maritime art and artifact collections in North America and more, the Museum is a premier, year-round destination on the Penn's Landing waterfront.

### **On-Water Programs**

#### *Summer Camps:*

Throughout each summer, Independence Seaport Museum runs summer camp programs for kids ages 6-12 and a Waterfront Explorers Teen Camp, consisting of one-week and two-sessions. Campers paddle in kayaks and rowboats on the Delaware River every day, weather permitting. Independence Seaport Museum also hosts visits from Philadelphia Parks and Recreation summer camp programs, where kids come and paddle on the Delaware River.<sup>24</sup>

#### *Paddle Penn's Landing:*

This program offers swan boat, rowboat and kayak rentals for a half-hour at \$8 per person. Participants range greatly in age and experience. Paddlers are restricted to the marina area between the Independence Seaport Museum and the *USS Olympia*.<sup>25</sup>

#### *Kayaking Excursions:*

Independence Seaport Museum hosts kayaking trips that depart from Penn's Landing and go to numerous destinations on the Delaware River including a 6 mile trip to Philadelphia's Graffiti Pier, a 3 mile trip to the site of the Three Sisters Shipwreck off the coast of South Philadelphia, and a 10 mile trip across the river to Petty Island. Participants must be at least 18 years of age.<sup>26</sup>

#### *Walnut2Walnut River Challenge:*

At this annual event, participants kayak and canoe 15 miles from Schuylkill Banks, along Walnut Street on the Schuylkill River, to the Independence Seaport Museum's basin on the Delaware River. The average course completion time is 5 hours.<sup>27</sup>

### **Contact with the Delaware River During Activities**

During Kayak Excursions on the main channel of the Delaware River along Philadelphia, the water can be very choppy. Paddlers traverse through considerable wakes caused by container ships and barges. Paddling through tides and these large wakes can produce splashes that lead to skin contact and possible ingestion. During the Paddle Penn's Landing activities in the Penn's Landing Marina, paddlers get wet from being occasionally splashed and kayakers, in particular, sit very low on the surface of the water and the seats do often have water inside. Although safety

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<sup>24</sup> "Seaport Summer Camp," Independence Seaport Museum, <https://www.phillyseaport.org/summercamp> (accessed January 21, 2020).

<sup>25</sup> "Paddle Penn's Landing," Independence Seaport Museum, <https://www.phillyseaport.org/paddle> (accessed January 21, 2020)

<sup>26</sup> "Kayaking Excursions," Independence Seaport Museum, <https://www.phillyseaport.org/kayaking> (accessed January 21, 2020).

<sup>27</sup> "Walnut2Walnut River Challenge," Independence Seaport Museum, <https://www.phillyseaport.org/Walnut2Walnut> (accessed January 21, 2020).

is the utmost concern in these programs, paddlers do occasionally capsize and fall into the Delaware River.

## Participation

Over the past five years, participation in the Independence Seaport Museum’s primary contact recreation activities on the Delaware River has grown significantly. In 2019 alone, over 20,000 people, ranging widely in age and on-water experience, participated in the organization’s primary contact recreation activities on Zone 3 and Upper Zone 4 of the Delaware River.

Participation in Independence Seaport Museum’s  
Primary Contact Recreation Activities on the Delaware River from 2015 – 2019

| Event/Program   | Number of Participants by Year |        |        |        |        |
|---|--------------------------------|--------|--------|--------|--------|
|   | 2015                           | 2016   | 2017   | 2018   | 2019   |
| Summer Camps<br>(Independence Seaport Museum Camp and Philadelphia Parks and Rec Camps) | -*                             | -*     | -*     | 746    | 811    |
| Paddle Penn’s Landing<br>(All: Swan Boats/Rowboats/Kayaks)                              | 14,954                         | 15,057 | 16,129 | 16,069 | 19,672 |
| Kayak Rentals at Paddle Penn’s Landing<br>(included in the numbers above)               | -*                             | 0      | 216    | 745    | 1076   |
| Kayaking Excursions   | 0                              | 0      | 0      | 41     | 148    |
| Walnut2Walnut River Challenge   | 31                             | -*     | 81     | 141    | 91     |
| Total Participants  | 14,985                         | 15,057 | 16,210 | 16,997 | 20,722 |

\*Data unavailable

Source: Independence Seaport Museum

## Profile 2: Upstream Alliance

### Background

Upstream Alliance is a 501(c)(3) non-profit organization dedicated to connecting people to nature. Their mission is to provide significant outdoor environmental education experiences to prepare the next generation to be leaders and stewards of a sustainable environment. Through their education and leadership programs, Upstream Alliance organizes kayaking and canoeing expeditions and programs on the Delaware River.

### Participation



In 2019 alone, over 180 individuals, ranging in age and on-water experience, participated in Upstream Alliance’s primary recreation activities on Zone 3 and Upper Zone 4 of the Delaware River. In 2017 and again in 2018, approximately 20 people paddled in kayaks on the Delaware River from Trenton to Camden.

Participation in Upstream Alliance’s Primary Contact Recreation Activities  
in Zone 3 and Upper Zone 4 of the Delaware River in 2019

| Month     | Event  | Primary Contact Recreation Activity | Number of Participants | Destination and Description  |
|-----------|--|-------------------------------------|------------------------|--|
| May       | Mayor’s Paddle   | Kayaking                            | 32                     | Participants kayaked the tidal Cooper River, the Delaware River backchannel and toured Petty’s Island with the Mayor of Camden.  |
| May       | William Penn Foundation Outing: Paddling for Clean Water | Kayaking                            | 34                     | Representatives of government, public utilities, and environmental organizations kayaked the Delaware River from Pyne Poynt in Camden to Palmyra Cove, north of the Betsy Ross Bridge. |
| June      | Paddle with the NJDEP Commissioner                       | Kayaking                            | 20                     | Participants kayaked with the NJDEP Commissioner on the backchannel of the Delaware River.   |
| June-Aug. | Discover the Delaware Expeditions                        | Kayaking;<br>Canoeing               | 45                     | There were 3 outings for the public. Participants kayaked from Philadelphia to Camden and on the backchannel of the Delaware behind Petty’s Island. Each outing had 15 people.         |
| Sept.     | Floatopia  | Kayaking;<br>Canoeing;<br>Swimming; | 12                     | One dozen people engaged in various recreation activities on the   |

|                            |   |                        |     |  |
|----------------------------|---|------------------------|-----|--|
|                            |   | Standup Paddleboarding |     | backchannel of the Delaware River.   |
| Oct.                       | Paddle with the NJDEP Deputy Commissioner | Kayaking               | 20  | Participants kayaked on the backchannel of the Delaware River with the Deputy Commissioner of the New Jersey Department of Environmental Protection. |
| Oct.                       | Blue Sky Funders Forum Paddle             | Kayaking               | 20  | Participants kayaked the Delaware River backchannel to Petty's Island.   |
| Total Participants in 2019 |   |                        | 183 |  |

Source: Upstream Alliance

Participation in Upstream Alliance's Trenton to Camden Paddle Events in 2017 and 2018

| Year | Event                    | Primary Contact Recreation Activity | Number of Participants | Event/Program Description   |
|------|--------------------------|-------------------------------------|------------------------|---|
| 2018 | Trenton to Camden Paddle | Kayaking                            | ~20                    | Participants kayaked 35 miles in a two-day expedition on the Delaware River from Trenton to Camden. |
| 2017 | Trenton to Camden Paddle | Kayaking                            | ~20                    |   |

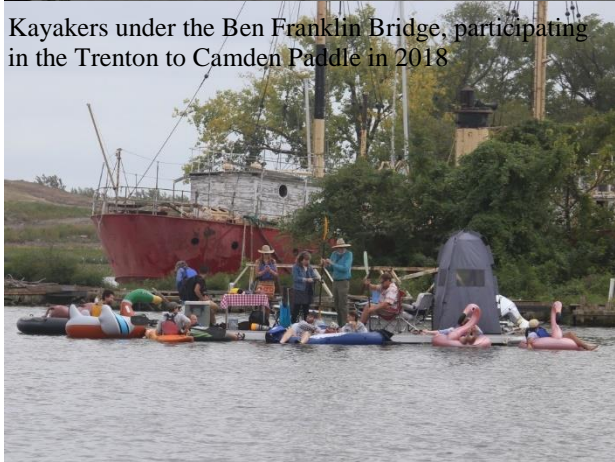
Source: Upstream Alliance

**Photos**



Kayakers under the Ben Franklin Bridge, participating in the Trenton to Camden Paddle in 2018

Floatopia on the Delaware River backchannel along Camden in September 2019



Floatopia on the Delaware River backchannel along Camden in September 2019



Kayakers on Petty's Island, participating in The Mayor's Paddle in May 2019



Kayakers in the Delaware River backchannel with the Mayor of Camden at The Mayor's Paddle in May 2019



Kayakers behind the *USS Olympia* at Penn's Landing during a Discover The Delaware event in June 2019

Source: Photos are used with the permission of Upstream Alliance

### **Profile 3: UrbanPromise and the UrbanBoatworks Program**

#### **Background**

For over thirty years, UrbanPromise's mission has been to equip Camden's children and young adults with the skills necessary for academic achievement, life management, spiritual growth, and Christian leadership. In addition to running two private Christian schools in Camden, CamdenForward School (Grades K-8) and Urban Promise Academy (Grades 9-12), UrbanPromise provides an array of programs, including job training and after-school programs, college tours, faith development opportunities, expeditionary and experiential learning programs.

#### **On-Water Programs**

##### *Urban BoatWorks After School Programs:*

In partnership with the Camden Shipyard and Maritime Museum, UrbanPromise's UrbanBoatworks program teaches middle and high school youth in Camden how to build wooden paddleboats, canoes, and kayaks. Since the program's first year in 2009, 47 boats have been handcrafted and launched on the water. During the 2018-2019 school year, Urban BoatWorks had 72 students between 6th and 12th grade from Camden schools participating in their boat building program. Each school year, students take swimming lessons so that they are prepared to paddle their boats on the water during UrbanPromise's summer paddling season. During outings, students paddle canoes and kayaks through the tidal portion of the Cooper River and out onto the Delaware River's backchannel between Petty's Island and Camden.

##### *RiverGuides:*

In the RiverGuides program, high school students in Camden are given the opportunity to become tour guides on the Cooper River and the Delaware River. Founded in 2015 through a grant from the William Penn Foundation, the RiverGuides program pays high school students to lead people on educational tours through the rivers.<sup>28</sup> During each trip, the guides narrate the local history and landmarks on the rivers and teach participants about the local ecology. The guides also facilitate kayak and canoe outings on the Cooper and Delaware Rivers for the 9th Grade orientation programs for Camden Academy Charter High School students.

*Paddle Trips on the Tidal Cooper River and the Delaware River Backchannel:*

Each summer, UrbanPromise hosts 8-12 community outings on both the Cooper and Delaware rivers, with RiverGuides taking anywhere from 12 to 35 people out at a time, along with 2-3 outings each Spring and Fall. Urban BoatWorks also hosts paddle trips for organizations.

*Paddle for Promise Fundraiser:*

Prior to 2019, UrbanPromise has held a two-day fundraising event where kayakers paddle down the Delaware River from Trenton to Wilmington. On day one, participants paddle from Trenton to Camden and then from Camden to Wilmington on day two. In 2018, 75 people paddled from Trenton to Wilmington. In 2019, 50 participants paddled in canoes and kayaks on the Delaware River on a round trip from Wiggins Park Marina on the Camden Waterfront to circumnavigate Petty Island.

**Contact with the Delaware River During Activities**

During outings, paddlers regularly come in contact with the water of the Delaware River, with water splashing into the boats due to the tide as well as from the paddle’s contact with the water. In a few instances, canoes and kayaks have capsized, but staff members trained in water rescue are always present. When participants paddle out on the main channel of the Delaware, UrbanBoatworks uses “chase boats”, motorboats driven by staff members, to reach paddlers in case they capsize or need assistance.

**Participation**

As illustrated in the table below, in 2018 over 400 individuals participated in UrbanPromise’s primary contact recreation activities in Zone 3 and Upper Zone 4 of the Delaware River. In 2019, 377 individuals participated in primary contact recreation activities in Zone 3 and Upper Zone 4 of the Delaware River.

Participation in UrbanPromise’s On-Water Programs in Zone 3 and Upper Zone 4 of the Delaware River in 2018 and 2019

| Program | Number of Participants* by Year | Notes |
|---------|---------------------------------|-------|
|---------|---------------------------------|-------|

<sup>28</sup> Feur, William, “‘Within this city ... there is this beautiful river.’ South Jersey canoe program aims to expand horizons and change lives,” *The Philadelphia Inquirer*, July 28, 2018, [https://www.inquirer.com/philly/news/new\\_jersey/within-this-city-there-is-this-beautiful-river-south-jersey-canoe-program-aims-to-expand-horizons-and-change-lives-20180708.html](https://www.inquirer.com/philly/news/new_jersey/within-this-city-there-is-this-beautiful-river-south-jersey-canoe-program-aims-to-expand-horizons-and-change-lives-20180708.html) (accessed January 21, 2020).



|                                  | 2018 | 2019 |  |
|----------------------------------|------|------|--|
| UrbanPromise's On-Water Programs | 352  | 322  | Includes Urban BoatWorks after school program outings, RiverGuides, and paddle trips for community members and organizations.  |
| Paddle for Promise Fundraiser    | 75   | 50   | In 2018, participants completed a round-trip paddle from Wiggins Park Marina in Camden to circumnavigate Petty's Island. In 2019, participants paddled from Trenton to Wilmington. |
| Total Participants               | 427  | 377  |  |

\*Participants include individuals canoeing, kayaking and rowing in paddleboats  
Source: UrbanPromise

### Photos



Canoeers along the future site of Cramer Hill Waterfront Park in Camden New Jersey, where the Cooper River meets the Delaware River



Paddlers next to the USS New Jersey in Camden during the Paddle for Promise event in 2018



Paddlers near the Ben Franklin Bridge during the Paddle for Promise event in 2018



Paddlers canoeing along Philadelphia during the Paddle for Promise event in 2018

Source: Photos are used with the permission of UrbanPromise

## **Profile 4: Center for Aquatic Sciences at Adventure Aquarium**

### **Background**

The nonprofit Center for Aquatic Sciences at Adventure Aquarium in Camden is a leader in conservation-oriented research, environmental education, and community service both locally and globally. The Center serves the 4-state area through travelling programs to schools and community-based organizations as well as onsite at Adventure Aquarium in a unique partnership to engage aquarium visitors in the wonders of the aquatic world.

### **On-Water Programs**

#### *Kayak Outings*

The Center for Aquatic Sciences hosts kayak outings on the Delaware River and the Cooper River. Each outing launches on the Delaware River from Pyne Poynt Park, where the Center has a storage container housing ten 2-person kayaks. The Center hosts community paddling events during the Spring through the Fall, as well as outings for school groups and organizations.

### **Participation**

From May to October of 2019, over 400 people participated in kayak outings organized by the Center for Aquatic Sciences, including over 220 community members, and approximately 110 students from local schools and 70 adults from government agencies and surrounding organizations.

Participation in the Center for Aquatic Science’s Kayaking Activities

| Year | Total Participants - Kayaking |
|------|-------------------------------|
| 2019 | >400                          |

Source: Center for Aquatic Sciences at Adventure Aquarium

## **Profile 5: Aqua Vida and The Delaware River Waterfront Corporation**

### **Background**

The Delaware River Waterfront Corporation (DRWC) has collaborated with health and wellness organization Aqua Vida to bring stand up paddleboard tours, floating stand up paddleboard yoga, acro and fitness classes, as well as floating meditation sessions, to the Delaware River at Penn’s Landing Marina every summer since 2014.

## **On-Water Programs**

### *Stand Up Paddleboarding Tours*

During these tours, guides teach participants how to use stand up paddleboards and then lead paddle tours in Penn's Landing Marina, from Spruce Street Harbor Park to the world's largest 4-masted sailboat, the Moshulu. Participants are over ten years of age and range in experience from newcomers to seasoned paddlers.

### *Floating Stand Up Paddleboard (SUP) Yoga and Acro*

Aqua Vida holds stand up paddleboard yoga and acro (a practice which combines yoga and acrobatics) classes for participants at all levels of experience. During yoga sessions, each participant practices poses while floating on his or her own board. During acro classes, 2 participants often share a board and perform a series of poses where they must hold each other for balance and support. Acro participants also occasionally make small jumps on their own boards to perform gymnastic-like movements.

## **Contact with the Delaware River During Activities**

Participant's primarily make contact with the water using their hands and feet, either from submerging them into the water or from water splashing onto the boards. The boards are fairly stable and participants receive hands-on training, however accidents do occur and participants have fallen into the water during the activities. Due to water quality concerns under the Delaware River's current designation, Aqua Vida only holds its programs 48 hours after rainfall events and within two hours of high tide.

## **Participation**

Since 2014, 300 to 400 people have participated each summer in Aqua Vida's on-water programming at Penn's Landing Marina. Aqua Vida typically holds 5 to 6 on-water activities each week.

## **Photos**







Participants in Aqua Vida's yoga and acro yoga programs at Penn's Landing Marina

Source: Photos are used with the permission of Aqua Vida

## **Additional Recreation Activity on Zone 3 and Upper Zone 4 of the Delaware River**

- In 2018 and 2019, Delaware Riverkeeper Network held kayak paddles from Palmyra Cove to Penn Treaty Park and Pyne Poynt Park to celebrate World Fish Migration Day, drawing approximately 20 participants each year.
- An article in the March 2018 issue of *Wakeboarding Magazine* highlighted wakeboarding in the city of Philadelphia.<sup>29</sup>
- Jet skiing is taking place in both the Schuylkill and Delaware Rivers and is growing in popularity.<sup>30</sup>
- Consultants, academics, and non-profits conduct snorkel & SCUBA surveys of submerged aquatic vegetation and freshwater mussels each year, in addition to first responders needing to conduct SCUBA search-and-rescue efforts.<sup>31</sup>
- Camden County, New Jersey, and its partners in the Discover the Delaware coalition promote education and access to the Delaware through organizing recreational excursions including kayaking.<sup>32</sup>
- Bartram's Garden offers boating and fishing programs to the public in the Lower Schuylkill River.<sup>33</sup>
- ,Camping and swimming regularly take place on islands and sand bars in Zones 3 and 4 of the River, including Red Bank Island (aka, "No Name Island" or "Rat Island") and Little Tincum Island.<sup>34</sup>
- Many yacht clubs and boat clubs operate in the lower Delaware River, including the Camden City Yacht Club, Paulsboro Sportsmen's Association, Philadelphia Yacht Club, Raccoon Creek Boat Club, and Riverton Yacht Club.<sup>35</sup>

In addition, the Delaware Riverkeeper Network recently conducted a recreation survey to assess how people are utilizing this stretch of the River. The survey elicited 118 responses to questions regarding recreational activities between Riverton, NJ and Chester, PA. The survey results showed that 38.1% of the participants have waded, 30.5% have swam, 7.6% snorkeled, 22% tubed, 6.8% paddle-boarded, 34.7% kayaked, and 10.2% jet skied or water skied in these

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<sup>29</sup> Barton, J., "Wakeboarding in the City of Brotherly Love," *Wakeboarding Magazine*, March 1, 2018, <https://www.wakeboardingmag.com/exploring-wakeboarding-options-in-city-brotherly-love/> (accessed January 21, 2020).

<sup>30</sup> Sasko, C., "The Dedicated Sailors (and ... Jet-Skiers?) on Philly's Rivers," *Philadelphia Magazine*, July 12, 2018, <https://www.phillymag.com/news/2018/07/12/sailing-delaware-river-schuylkill/> (accessed January 21, 2020).

<sup>31</sup> "Freshwater Mussels," Partnership for the Delaware Estuary, <http://www.delawareestuary.org/science-and-research/freshwater-mussels/freshwater-mussels-scientific-studies/> (accessed January 21, 2020).

<sup>32</sup> "Trips," Discover the Delaware, <https://discoverthedelaware.org/trips/> (accessed January 21, 2020).

<sup>33</sup> "On the River," Bartram's Garden, <https://bartramsgarden.org/what-to-do/on-the-river/> (accessed January 21, 2020).

<sup>34</sup> Szilagyi, Mike, "Rat Island," *Hidden City Philadelphia*, February 15, 2012, <https://hiddencityphila.org/2012/02/rat-island/> (accessed January 21, 2020); "Little Tincum Island," *The Camping Guys*, July 23, 2017, <https://thecampingguys.blogspot.com/2017/07/little-tincum-island.html> (accessed January 21, 2020).

<sup>35</sup> "Private Boat Clubs," Tidal Delaware Water Trail, <https://www.tidaltrail.org/private-boat-clubs/?all=true> (accessed January 21, 2020).

reaches of the Delaware Estuary. The majority of these activities are occurring in the Philadelphia area, with 36.4% taking place between Riverton, NJ and the Betsy Ross Bridge and 16.9% taking place between the Betsy Ross Bridge and the Ben Franklin Bridge. A total of 22.9% of participants said they engaged in these recreational activities 2 to 5 times a year, while 16.1% said they engaged in them 11 or more times a year. For secondary use contact recreation, 11% fished while wearing waders, 17.8% fished from a boat, 22% canoed, 8.5% rowed, 15.3% sailed, 24.6% power boated, and 6.8% rafted. Again, these activities are concentrated in the Philadelphia area, with 33.1% taking place between Riverton, NJ and the Betsy Ross Bridge, 28% between the Betsy Ross Bridge and the Ben Franklin Bridge, and 28.8% between the Ben Franklin Bridge and the Walt Whitman Bridge. For frequency, 16.9% said they engaged in these secondary use recreational activities between 2 to 5 times a year, while 18.6% said they engaged in them 11 or more times a year.

**The evidence is clear, people are actively engaging in primary contact recreation in the Delaware Estuary in Zone 3 and Upper Zone 4 and DRBC adopting a corresponding use designation is critical to protect the waters and the people who recreate and enjoy the River in this way.**

Since 2011, the Philadelphia Water Department’s Green City, Clean Waters program has reduced stormwater in combined sewers and technology has improved to create much more accurate models of CSO systems, including timing and volume of discharge. These statistical models provide guidance on current conditions relevant to contact recreation. In 2018, the DRBC presented evidence that Zone 3 and Upper Zone 4 would meet fecal coliform and *enterococcus* criteria for primary contact use by using tools that predict which sets of conditions are likely to contribute to exceedances.<sup>36</sup> This demonstrates that water dischargers to the River are not only legally bound to achieve primary contact regulatory protections, but they are able to achieve those standards using technologies available today. Primary contact recreation in these zones is not only attainable, but is already taking place today.

The time for formal recognition, action and protection by the DRBC and the member states is overdue. It is time and it is important for the DRBC to acknowledge the primary contact recreation taking place in Zones 3 and Upper Zone 4 by formally and legally recognizing the existing recreational uses taking place and formally designate Zones 3 and Upper Zone 4 for primary contact recreation.

#### **4. Alleged hazards associated with commercial shipping and navigation does not prohibit redesignation for primary contact recreation.**

“[H]azards inherent in an urban-industrial shoreline and river” have been raised as reasons to exclude primary contact from these portions of the Delaware, but this is not an appropriate rationale for denying recreational use designations.

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<sup>36</sup> Yagecic, J. “Recreational Uses & Criteria: Status and Developments”.

The regulations implementing the Clean Water Act provides specific circumstances in which states may remove a use that is not an existing use if one of six factors is demonstrated through the preparation of a Use Attainability Analysis (UAA).<sup>37</sup> DRBC prepared such an analysis in 1988 regarding the attainability of swimmable water quality, which resulted in recommendation of appropriate uses for portions of the Delaware mainstem.

DRBC's Use Attainability Swimmability Report identifies the "hazards inherent in an urban-industrial shoreline and river" as jeopardizing primary-contact uses, but provides little other information.<sup>38</sup> This reference to the shipping uses of the Delaware was advanced by PADEP as rationale for excluding "Water Contact" as a use from these portions of the mainstem.<sup>39</sup> To the degree Pennsylvania or the DRBC intend this rationale to implicate 40 C.F.R. 131.10(g)(3) regarding human caused conditions or sources of pollution which prevents the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place, such a position is not legally defensible. "[H]azards inherent in an urban-industrial shoreline and river" are not an appropriate rationale for denying recreational use designations. "Physical factors, which are important in determining attainability of aquatic life uses may not be used as the basis for not designating a recreational use consistent with the CWA section 101(a)(2) goal."<sup>40</sup>

To be sure, safety hazards exist elsewhere, even along the Delaware, but are not addressed through the applicable water quality standards, particularly as that standard relates to recreational use. For example, Devil's Hole in Wissahickon Valley Park has a Pennsylvania water quality designation of water contact use, which triggers a bacteria criteria protective of primary contact during the swimming season. However, physical characteristics, including submerged objects in the fifteen foot well create a safety hazard that makes the location unsafe for swimming. But that physical safety hazard does not prevent the state from recognizing the legally appropriate water contact designation. In order to address the physical safety hazard, Philadelphia's Parks and Recreation Department prohibits swimming in areas not designated as safe based on suitable access, currents, river traffic, and other factors -- but again, those physically hazardous features do not alleviate the state (nor has PADEP sought to use them to alleviate itself) from the legal obligation to recognize a water quality designation that includes water contact.

## 5. Conclusion

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<sup>37</sup> 40 C.F.R. § 131.10(g).

<sup>38</sup> Delaware River Basin Commission, *Report on the Attainability of Swimmable Water Quality*, December 1988, Delaware Estuary Use Attainability Project, DEL USA Project Element 19, 7.

<sup>39</sup> PA DEP, Pennsylvania Bulletin, Vol. 27 Num. 42, Oct. 21, 2017, 2017 Triennial Review, 6618 <http://www.pacodeandbulletin.gov/secure/pabulletin/data/vol47/47-42/47-42.pdf> (accessed January 21, 2019); PA DEP, 2016 Final Pennsylvania Integrated Water Quality Monitoring and Assessment Report, Appendix J, 3, <http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=6259&DocName=13%202016%20INTEGRATED%20REPORT%20APPENDIX%20J%20-%20COMMENT%20AND%20RESPONSE.PDF%20%20%3Cspan%20style%3D%22color%3Agreen%3B%22%3E%3C%2Fspan%3E%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E> (accessed January 21, 2020).

<sup>40</sup> U.S. Environmental Protection Agency, *Water Quality Standards Handbook – Chapter 2: Designation of Uses*, 2012, 2-3.

For the foregoing reasons, the Delaware Riverkeeper Network, Clean Air Council, PennFuture, Environment New Jersey, PennEnvironment, River Network, Bartram's Garden, Glen Foerd on the Delaware, Darby Creek Valley Association, and Clean Water Action urge the DRBC to immediately recognize the existing primary contact recreation taking place in Zones 3 and Upper Zone 4 of the Delaware River, and to undertake the regulatory process necessary to upgrade the designated use to meet the existing primary contact use for Zones 3 and Upper Zone 4. All of the aforementioned uses are currently taking place in this section of the River and DRBC and the watershed states are legally bound to recognize and protect these currently existing uses. Failure to recognize and protect the primary contact recreation uses taking place in the River today puts the health and safety of our River communities and river users at risk. The DRBC has the authority to initiate the necessary changes to accurately reflect the uses and activities that are actually taking place in the Delaware Estuary and in so doing to protect the communities that enjoy and depend upon a healthy Delaware River, including in Zones 3 and Upper Zone 4.

Respectfully,

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