

NJEDA EPA Brownfield Assessment Grant

City of Bridgeton Sanitary Landfill
Mayor Aitken Drive, City of Bridgeton
Cumberland County, New Jersey

Concept Plan - Narrative Summary
February 27, 2023

Background

The former Bridgeton Sanitary Landfill, “the Site”, is an approximately 38-acre property owned by the City of Bridgeton and located on Mayor Aitken Drive. The Site is boarded by City-owned park land to the north and south, the Cohansey River to the east, Mayor Aitken Drive to the west. Designated as Block 280, Lot 1.01 on the City of Bridgeton Tax Map, approximately 20 acres of property has been identified by the City to be redeveloped as a public park. The balance of the Site is with waterbody or wetlands. The Site accepted household waste circa the 1950s until February 1990. The engineering cap installed to officially meet the New Jersey Department of Environmental Protection (NJDEP) landfill closure requirements was completed in 2019.

Through New Jersey Economic Development Authority (NJEDA) Brownfields Planning and Assessment Services¹ (supported by a USEPA Assessment Grant) funding has been made available to conduct public outreach and develop a conceptual design for the Site. On October 13, 2022 a public design charrette workshop was held to gather community input for the reuse of the Site. Based on community feedback and meetings with City Officials, BRS Inc. prepared the Conceptual Plan for the redevelopment of the Site including passive and active recreation elements, native species landscaping and additional site access points.

Passive Recreation

Proposed trails will provide connection to adjacent trail systems as well as invite people to experience vistas unique to this Site. An accessible trail rising to the top along the west side of the landfill from the proposed parking lot and then winding back down the east side to the waterfront will be 10-foot wide hardscaped path. Constructed with a 6” thick stone foundation and a 3” asphalt top coat, this will provide long term durability and avoid erosion issues that would develop with a less stable wearing course. The trail surrounding the park perimeter will be made accessible and will run adjacent to various fitness stations. The route currently serves as maintenance vehicle path, and will be upgraded to a 10-foot wide stabilized stone dust path. Benches will be located along the trails to provide seating opportunities at strategic points and optimize access to views.

¹ This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement BF-96242421 to the New Jersey Economic Development Authority. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, no names or recommend the use of commercial products mentioned in this document.



Three pavilions are proposed within the Site. There is a large pavilion at the top central point of the landfill. This may serve as a meeting point and can be furnished with picnic tables or benches. A smaller pavilion on the northern point of the summit will cater to birdwatching and will have informational signage about local wildlife. Another small pavilion at the base of the landfill will provide waterfront access at the midpoint of the perimeter trail. This pavilion will likely require a foundation designed with helical piles due to the location at the edge of the river. All three are envisioned as pergolas which may be adorned with vegetation to provide additional shade while being designed to withstand wind loads and meeting the engineering criteria for the Site.

Interpretive signs will be located throughout and shall include information on site history, wildlife, vegetation, and visible historic structures, such as the trestle bridge to the southeast of the Site. Location maps will provide direction to and information on nearby recreational facilities and points of interest. Wayfinding signage shall follow the design and type as outlined in the Bridgeton City Park & Zoo (BPAZ) Theme 4.

Portions of the Site on the west of the landfill, which have historically been used for sledding in the winter, have been left intentionally with minimal site improvements so as not to prohibit this activity.

Active Recreation

The Site is prime for mountain biking, which in addition to being an active sport enjoyed by members of the community, can also be a great source of tourism for Bridgeton. The mountain bike trail system, designed on the southern side of the landfill, includes a skills loop as well as three levels of difficulty which allow people to progress in their riding experience and build confidence.

The skills loop is the yellow trail, this is designed as an easy section for children and beginner riders to stay on the top of the landfill and have fun while honing their skills. The green route is the beginner trail, this is targeted towards newer riders. The blue route is an intermediate trail that includes berms and jumps. The red route is the most difficult and is designed for more experienced riders. All of the downhill trails meet at the base of the landfill where they link to the pink trail, which is the return trail. The return trail allows people to peddle up the hill on a modest incline and get back to the central meeting area at the top.

Signs will be posted along the trail routes and throughout the park to inform people of the trail designations and how and when to use each of the trail types. The mountain bike trails will be both physically and visually separated from the rest of the Site through the use of differentiation in elevation and with screening provided from strategic plantings. Bike repair station is proposed at the foot bridge on the southwest of the property.

Native Species Landscaping

With the exception of the accessible and mountain bike trails, the majority of the site shall be over-seeded with a wildflower pollinator mix and native grasses. This will create habitat for and encourage increase in the number of insects, birds, and various wildlife on the Site. This design element will substantially cut down on maintenance cost by necessitating only one site-wide mowing per year instead of the multiple



times required in years past. In addition to hardscaped accessible trails, mown trails can be introduced throughout the Site to allow for less formal, intimate view of plantings.

Native trees and woody shrubs will be strategically planted throughout the site and at the proposed parking lot to provide shade and habitat, direct sight lines, help separate and define various recreational active and passive amenities, and increase the carbon sequestration capacity of this facility.

Fitness stations, a majority of the benches, and the proposed pergolas will all be provided with both shade and ornamental tree species to provide both shade and a porous sense of enclosure to allow for limited privacy and site context. The proposed woody shrubs and trees within and surrounding the mountain bike trails serve to visually separate it from the balance of the site which is populated with mostly passive recreation amenities.

Selective clearing of the invasive vegetation along the riverbank will greatly improve the view of the river from the trail and provide physical access to the waterbody. The areas cleared of the invasive, non-native species will be planted with a variety of native trees and shrubs to stabilize the riverbank, direct controlled access to the water's edge, direct site lines and provide habitat and a food source for the local wildlife.

Access

A new parking lot is proposed adjacent to Mayor Aitken Drive. This would provide much needed additional spaces for both the existing basketball courts and the proposed park. The current configuration includes 55 parking spaces, 3 of which would be designated as accessible parking spaces for ADA compliance. A path connecting to the existing raceway trail north of the site will be established, and a small pedestrian scaled bridge over the existing stream will provide Site access from the west. The bridge will likely be designed with helical pile foundations. Additional pedestrian access pathways from both the raceway trail, the proposed parking lot, and the pedestrian bridge will be equipped with barriers designed to prevent all terrain vehicle (ATV) access. Bollards will be installed at these entry points with a spacing of 32" to be ADA compliant.

Maintenance

It is anticipated that the Department of Public Works will continue to conduct the maintenance of the property. In order to facilitate maintenance, the accessible trails are wide enough to support vehicle and light equipment access, there is a vehicle turnaround designed at the summit, and a swing gate with lockable and retractable end posts will be installed at the entry point from the parking lot to allow for authorized vehicle access. In addition to typical park maintenance, the ongoing monitoring and reporting associated with the NJDEP Landfill Closure Permit shall be conducted.

The development of an Operations and Maintenance Plan is included in the detailed cost estimate and will address site-specific requirements. A rough estimate of park operations and maintenance cost, based on other parks of a similar nature and design, can range from \$100,000 to \$175,000 annually.



Cost Estimate

A detailed cost estimate is provided in Attachment A.

Funding Opportunities

A list of eligible funding opportunities is provided in Attachment B. The City will likely approach the redevelopment of the Site in phases based on available funding.

Permits

Required permits will be based on the final engineering design. The following permits are anticipated based on the features proposed in the Conceptual Plan.

Cumberland County Soil Conservation District - A Soil Erosion and Sediment Control Permit will be required for any disturbance in excess of 5,000 square feet.

NJDEP Landfill Disruption Permit – A permit will be required for disturbance within the footprint of the former landfill. Consultation with the NJDEP is recommended prior to submitting the application to verify if a major or minor permit is needed.

NJDEP Land Use Permits – A pre-application conference with the NJDEP is highly recommended to determine which permits are required.

Waterfront Development Individual Permit

Flood Hazard Area Permit

Should the project be broken down into various phases of work it may be possible to complete some of the design elements under the following NJDEP Land Use General Permits:

General Permit 13 - Construction of Recreational Facilities at Public Parks – Permits construction of picnic tables, benches, gazebos and rain shelters that do not exceed a footprint 200 sq. ft., pathways, bicycle paths and jogging and nature trails and associated fitness equipment.

General Permit 17A—Non-Motorized, Multiple-use Paths – Permits construction of a footbridge, trail or bike path within freshwater wetlands and transition areas.

Tidelands Permit - A tidelands license will be required if activities are taking place at or below the mean high water line of a tidal waterway or a tidelands grant if any portion of the activities are taking place in an area that is landward of the mean high water line but was, at some point, flowed by the tide.

All work must be conducted in accordance with the Air Pollution Control Preconstruction Permit and Certificate to Operate (PCP180001) and any and all future air permit requirements that pertain to the Site.



Next Steps

The City is actively pursuing funding opportunities to support the design, permitting and construction of the Site. The redevelopment of the Site will likely be approached in phases, based on funding availability.

A detailed engineering design shall be prepared based on the Conceptual Plan. The proposed site features shall be designed in accordance with the existing landfill cap requirements, including a minimum coverage of 24". All material imported to the site will need to meet the requirements of "clean fill" per the provisions set forth in the NJDEP Guidance Document "Fill Material Guidance for SRP Sites" (April 2015).

Once a detailed design is developed permit applications will be submitted based on the proposed scope of work and areas of disturbance. The City will then undertake the required procurement steps in order to contract for the construction of the park redevelopment.



Attachment A

Bridgeton Landfill Concept Plan - Estimated Costs
February 9, 2023

	Item	Quantity	Unit	Unit Price	Amount
1	Engineering				
2	Engineering Design	1	LS	\$ 75,000.00	\$ 75,000.00
3	Environmental Consultant/LSRP	1	LS	\$ 30,000.00	\$ 30,000.00
4	Permitting (NJDEP Individual Permits & Landfill Disruption Permit)	1	LS	\$ 50,000.00	\$ 50,000.00
5	Soil Erosion and Sediment Control Permit	1	LS	\$ 7,500.00	\$ 7,500.00
6	Deed Notice	1	LS	\$ 5,000.00	\$ 5,000.00
7	Engineering Subtotal			\$	167,500.00
8	Construction				
9	General Conditions:				
10	Mobilization and Site Setup	1	LS	\$ 10,000.00	\$ 10,000.00
11	Health and Safety Plan	1	LS	\$ 5,000.00	\$ 5,000.00
12	Construction Sign	3	EA	\$ 2,500.00	\$ 7,500.00
13	Soil Erosion and Sediment Control Measures	1	LS	\$ 60,000.00	\$ 60,000.00
14	Stormwater Management	1	LS	\$ 10,000.00	\$ 10,000.00
15	As-Built Survey	1	LS	\$ 10,000.00	\$ 10,000.00
16	Demobilization	1	LS	\$ 7,500.00	\$ 7,500.00
17	General Conditions Subtotal			\$	110,000.00
18	A. Pedestrian Trail				
19	Main Pathway (10' Wide Stabilized Stone Dust, 2" depth)	4,983	LF	\$ 20.00	\$ 99,660.00
20	Pathway through Park to Top of Landfill (10' Wide, 6" DGA subgrade with a 3" asphalt surface)	2,836	LF	\$ 30.00	\$ 85,080.00
21	Vehicle Turnaround (6" DGA subgrade with a 3" asphalt surface)	2,836	SF	\$ 3.00	\$ 8,508.00
22	Access Bridge	1	LS	\$ 20,000.00	\$ 20,000.00
23	Parking Lot (6" DGA, 4" Sub-base, 2" Top Coat)	17,000	SF	\$ 5.00	\$ 85,000.00
24	Pedestrian Trail Subtotal			\$	298,248.00
25	B. Site Furnishings				
26	Large Pavilion (typ. \$50,000.00 - \$80,000.00)	1	EA	\$ 80,000.00	\$ 80,000.00
27	Small Pavilion (\$40,000.00 - \$65,000.00)	2	EA	\$ 65,000.00	\$ 130,000.00
28	Waterfront Pavilion Helical Piles	8	EA	\$ 2,500.00	\$ 20,000.00
29	Fitness Stations (typ. \$8,000.00 - \$20,000.00)	7	EA	\$ 15,000.00	\$ 105,000.00
30	Interpretive Signs	6	EA	\$ 6,500.00	\$ 39,000.00
31	Directional and site map signs	8	EA	\$ 1,500.00	\$ 12,000.00
32	Benches (typ. \$1,500.000 - \$3,000.00)	30	EA	\$ 1,500.00	\$ 45,000.00
33	Fence	500	LF	\$ 18.00	\$ 9,000.00
34	Gates	3	EA	\$ 1,500.00	\$ 4,500.00
35	Bollards	9	EA	\$ 750.00	\$ 6,750.00
36	Bike repair station	1	EA	\$ 2,500.00	\$ 2,500.00
37	Site Furnishings Subtotal			\$	453,750.00
38	C. Native Species Landscaping				
39	Trees - 2 1/2" - 3" cal. - parking lot area	12	EA	\$ 450.00	\$ 5,400.00
40	Trees - 6' - 8' within project site	60	EA	\$ 60.00	\$ 3,600.00
41	Woody shrubs - 1 gal. cont. within project site	300	EA	\$ 12.00	\$ 3,600.00
42	Herbicide application to remove invasive species -entire site	1	LS	\$ 27,000.00	\$ 27,000.00
43	Hydro seed/ slit seed entire site to establish pollinator meadow	1	LS	\$ 45,000.00	\$ 45,000.00
44	Annual re-seed site to establish pollinator meadow	2	EA	\$ 10,000.00	\$ 20,000.00
45	Selective Removal of Invasive Species at Waterfront	1	LS	\$ 45,000.00	\$ 45,000.00
46	Native Species Landscaping Subtotal			\$	149,600.00
47	D. Mountain Bike Trails				
48	Beginner Trail (684 LF)	140	CY	\$ 50.00	\$ 7,000.00
49	Intermediate Trail (1313 LF)	360	CY	\$ 50.00	\$ 18,000.00
50	Advanced Trail (2514 LF)	1360	CY	\$ 50.00	\$ 68,000.00
51	Skills Loop (1133 LF)	390	CY	\$ 50.00	\$ 19,500.00
52	Landing Area at Top of Landfill	25	CY	\$ 50.00	\$ 1,250.00
53	Return Path to Top of Landfill (1210 LF)	90	CY	\$ 50.00	\$ 4,500.00
54	Fill for Grading	4000	CY	\$ 50.00	\$ 200,000.00
55	Mountain Bike Trails Subtotal			\$	318,250.00
56	E. Oversight				
57	Construction Management and Inspection (13% of construction cost)	1	LS	\$ 172,880.24	\$ 172,880.24
58	Develop Operations and Maintenance Plan	1	LS	\$ 10,000.00	\$ 10,000.00
59	Oversight Subtotal			\$	182,880.24
60	Construction Subtotal			\$	1,512,728.24
61	Total Project Costs			\$	1,680,228.24

Attachment B

Opportunity Name	Funder Name	BRS Brief Intro	Funding Potential	Eligible Applicants	More Info Link
Funding Type: Grant					
Local Recreation Improvement Grant	NJ DCA	The Local Recreation Improvement Grant is a competitive grant that supports improvement and repair of public recreation facilities including local parks, municipal recreation centers, and local stadiums. Access to outdoor recreation and community resources is critical for mental and physical health, particularly for those residents with limited or no other access to quality outdoor space or private recreational opportunities. Assisting local units in achieving unmet recreational obligations addresses these equity considerations, meeting the needs of communities that have been placed under substantial stress due to the lack of quality recreational facilities and spaces.	Grant / Up to \$100,000 / Cost Share Required: Priority will be given to unfunded projects with local match	Counties Municipalities	https://www.nj.gov/dca/dlgs/programs/lriggrants.shtml
Natural Climate Solutions	NJ DEP	The Natural Climate Solutions Grant program will fund on-the-ground implementation of projects that create, restore, and enhance New Jersey's natural carbon sinks, such as salt marshes, seagrass beds, forests, urban parks and woodlands, and street trees.	Grant / \$250,000 to \$5 million / Cost Share Required: Individuals must provide 25% match	Municipalities Counties Individuals Nonprofit organizations State	https://nj.gov/dep/climatechange/mitigation/ncs-grant.html
Regional Trails Program	NJ DEP	The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. NJDEP's Green Acres Program administers the program in New Jersey. Projects are reviewed and recommended for funding by the New Jersey Trails Council and approved by the Federal Highway Administration. The Trails Council comprises interest groups for hiking, mountain biking, horseback riding, motorized trail use and canoeing/kayaking, as well as several general trail advocates and state government representatives.	Grant / up to \$24,000 / Cost Share Required: 20%	Municipalities State Nonprofit organizations Counties	https://dep.nj.gov/greenacres/trails-program-grants/
NJ Tourism Cooperative Marketing Grant	NJ Department of State	One of two grant programs offered by the Division of Travel and Tourism. Applicants must demonstrate the project makes a clear contribution to NJ Tourism and fulfillment of the Division of Travel and Tourism's priorities.	Grant / Average grant is \$125,000 / Cost Share Required: 25% match from non-state funding sources is required	Municipalities Nonprofit organizations	https://visitnj.org/grant-opportunities
NJ Tourism Destination Marketing Organization Grant	NJ Department of State	One of two grant programs offered by the NJ Division of Travel and Tourism. Applicants must demonstrate the project makes a clear contribution to NJ Tourism and fulfillment of the Division of Travel and Tourism's priorities. A Destination Marketing Organization (DMO) serves to promote and market tourism of a destination in NJ as their primary function.	Grant / Up to \$300,000 / Cost Share Required: 25% match from non-state funding sources is required	Municipalities Nonprofit organizations	https://visitnj.org/grant-opportunities

Opportunity Name	Funder Name	BRS Brief Intro	Funding Potential	Eligible Applicants	More Info Link
Bikeway Grant Program	NJ DOT	The Bikeway Grant Program provides funds to promote bicycling as an alternate mode of transportation in New Jersey. A primary objective is to support the State's goal of constructing 1,000 new miles of dedicated bike paths.	Grant / \$100,000 - \$500,000 / Cost Share Required: None	Counties Municipalities	http://www.state.nj.us/transportation/business/localaid/bikewaysf.shtm
PFB Community Grant Program	PeopleForBikes	The PeopleForBikes Community Grant Program supports bicycle infrastructure projects and targeted advocacy initiatives that make it easier and safer for people of all ages and abilities to ride. Launched in 1999 as Bikes Belong, PeopleForBikes includes both an industry coalition of bicycling suppliers and retailers, as well as a charitable foundation.	Grant / Up to \$10,000 / Cost Share Required: Grant requests should not exceed 50% of the project budget	Counties Municipalities Nonprofit organizations	https://peopleforbikes.org/grant-guidelines/
Congestion Mitigation and Air Quality Improvement Program (SJTPO)	South Jersey Transportation Planning Org	The Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds transportation projects that improve air quality and reduce traffic congestion. The program is administered by the regional MPOs. Bicycle and pedestrian projects with a transportation purpose are good candidates for funding through CMAQ. Applicants must demonstrate the quantifiable impact their project will have on air quality.	Grant / \$250,000 minimum for construction projects / Cost Share Required: None is required but matching funds are encouraged for a competitive proposal.	Municipalities Counties Nonprofit organizations Private/For-profit Public Agencies	https://www.sjtpo.org/funding
Funding Type: Grant + Loan					
Green Acres	NJ DEP	Since 1961, the Green Acres Program has funded the acquisition of open space for recreation and conservation purposes, and the development of outdoor recreational facilities. Green Acres remains committed to preserving New Jersey's natural, historic, and recreational resources statewide and is pleased to continue the tradition of partnering with local and county governments and nonprofit organizations to serve residents through low interest loans and grants. Green Acres is accepting applications for the 2023 funding round for land acquisition, park development, stewardship, Jake's Law (Inclusive Playgrounds), and Urban Parks projects.	Grant + Loan / Depending on the applicant and program, up to \$1.8 million / Cost Share Required: 25%-75%, unless 100% grant or loan	Municipalities Counties Nonprofit organizations	https://www.nj.gov/dep/greenacres/local.html
Funding Type: Technical Assistance					
Rivers, Trails and Conservation Assistance	National Park Service	The National Park Service-RTCA program supports community-led natural resource conservation and outdoor recreation projects across the nation. Conservation and recreation planning professionals assist local communities in realizing their conservation and outdoor recreation vision and goals by providing a broad range of services and skills.	Technical Assistance / Selected applicants receive technical assistance from NPS planning staff. / Cost Share Required: NA	Municipalities Counties State Nonprofit organizations	https://www.nps.gov/orgs/rtca/apply.htm