Anacostia Park Design Competition
TOOLKIT

ANACOSTIA ENVIRONMENTAL YOUTH SUMMIT

MAY 29, 2020 • ANACOSTIA PARK

DEPARTMENT
OF ENERGY &
ENVIRONMENT
GOVERNMENT OF THE DISTRICT OF COLUMBIA

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MURIEL BOWSER, MAYOR

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Anacostia Park Design Competition

Anacostia Park needs your help!

Did you know that Anacostia Park is a National Park? It is more than 100 years old and is visited by people from all around the world. And now Anacostia Park needs your help! **ARE YOU UP FOR THE CHALLENGE?**

The District Department of Energy and Environment (DOEE) and the National Park Service (NPS) invite you and your teammates to help come up with ideas for how to make Anacostia Park better. The park is a home for many kinds of wildlife and it is important to people who live nearby. Your ideas can help DOEE and NPS think about ways to make the park even better. You will compete against students from around the District, and the winning design will provide helpful ideas for NPS to consider.
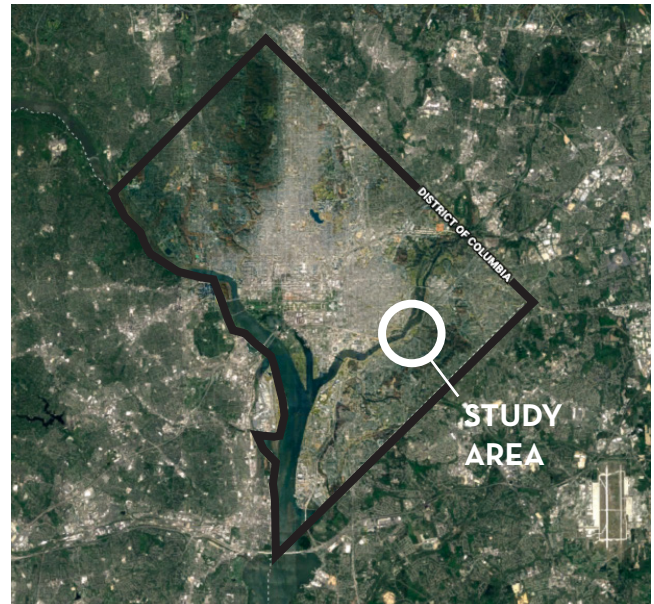
Parks are important places for people and the environment. Parks like Anacostia Park are home to many kinds of wildlife, they help improve water quality and they can reduce pollution. Parks also provide space for people to relax and have fun. People come from nearby and far away to Anacostia Park to play sports, bike or walk along the trails, roller skate at the pavilion, picnic, learn about history, play music and more.

What do you think would make Anacostia Park even better? How could Anacostia Park improve the environment in the District? How could Anacostia Park better serve the community that lives nearby? This toolkit will help you design a portion of Anacostia Park from scratch. Be creative and think about the best parks you have ever visited. **GOOD LUCK!**

Your Assignment

Imagine you and your classmates are park designers. You have been asked to redesign a portion of Anacostia Park. Your goal is to design this area to become an amazing, beautiful, and sustainable park.

In order to do so, you will need to decide what new features to include in the park. You will need to balance features that have environmental benefits and features that have community benefits.

Preparation

- Think about your favorite parks — what makes them so great? Talk with your friends, family, teachers, and community and ask them about their favorite parks.

- Explore Anacostia Park and identify what is there and what is missing. What could make the park better?

- Read through this Design Toolkit to learn about environmental benefits and impacts of the different park features. Don't miss the "Did You Know?" section for additional tips!

Instructions

1 Work with your team to identify what features you want to add to the park within the study area boundary (see Map 1 on page 7).

2 Work with your team to decide where you want to put each feature within the study area boundary.

3 Add up the total cost of your design and the total number of benefit points in each category.

4 Prepare your design presentation.

Choosing Features

1

This toolkit includes a list of features that can be included in a park design. Choose features from this list, or come up with your own features to be included in your design.

Different features make the park better in different ways. For example, benches help to increase people's comfort by giving them somewhere to sit, while rain gardens help the environment by absorbing water during storms, which reduces flooding.

Each feature included in this toolkit will earn your team different "Benefit Points" depending on how it improves the environment or the community. Your goal is to select a mixture of features that provide many different kinds of benefits. The different benefit points are explained on the next page.

> TIP: Don't forget about the feedback from your friends, family, teachers, and community.

> TIP: Be sure to select features that have environmental, recreational, and comfort benefit points.

Budget Tokens

Your team has a budget of 50 tokens ($) to design the park. You can spend these tokens on any of the features included in this toolkit, or propose your own ideas for what the park should include. If you create your own feature, be sure to tell the judges how many tokens you think they will cost, and why.

Benefit Points

Each feature can provide different "Benefit Points." You will need to make sure your park design includes a balance between the different kinds of Benefit Points in order to win the competition.

ENVIRONMENTAL BENEFITS

HABITAT CREATION
Can be gained by using trees, gardens, and other features that create habitat for animals, birds and insects.

WATER QUALITY
Can be gained by using rain gardens, rain barrels, or other features that help absorb, clean or manage rain that falls during storms.

LITTER PREVENTION
Can be gained by using recycling bins that keep trash out of the park, or features such as trash traps that keep pollution out of the river.

COMMUNITY BENEFITS

RECREATION
Can be gained by using basketball courts, tennis courts, trails and other features that provide the community with fun ways to be active, enjoy the park and stay healthy.

COMFORT
Can be gained by using benches, bathrooms, and other structures that help the community feel comfortable at the park. For example, parks with benches encourage people to sit down and stay longer.

COMMUNITY BUILDING
Can be gained by features that bring people together to celebrate, learn, spend time together, and get to know each other. For example, outdoor classrooms, concert stages, picnic areas, public art and more.

OTHER

CREATE YOUR OWN
Can you think of another way that some of the features in your park design provide benefits to people and the environment that are not listed here? You can create your own benefit category: include a description of the benefit in your presentation and include it in your total calculations (see page 10).

LOCATING YOUR FEATURES

2

Once you have selected features to include in your park design, you must decide where they should go. Think about which features should be next to each other, and how much space each feature might take up. Think about parks that you know well: where are the features located in those parks?

You can also research existing parks using online tools like Google Maps.

A "basemap" image is provided on the next page. If it is helpful, you can draw your ideas on this image to show where each feature should be located.

TIP: Consider including a mix of large and small features.

MAP 1

Existing Conditions

STUDY AREA

Boat Ramp

Anacostia River Trail

North Field

Anacostia Boathouse

Greenway

ANACOSTIA RIVER

Aquatic Resources Education Center

Basketball Courts

Anacostia Skating Pavilion

Fields

Dupont Park

N

500 feet

MAP 2

Draw Your Own

ANACOSTIA RIVER

STUDY AREA

N

500 feet
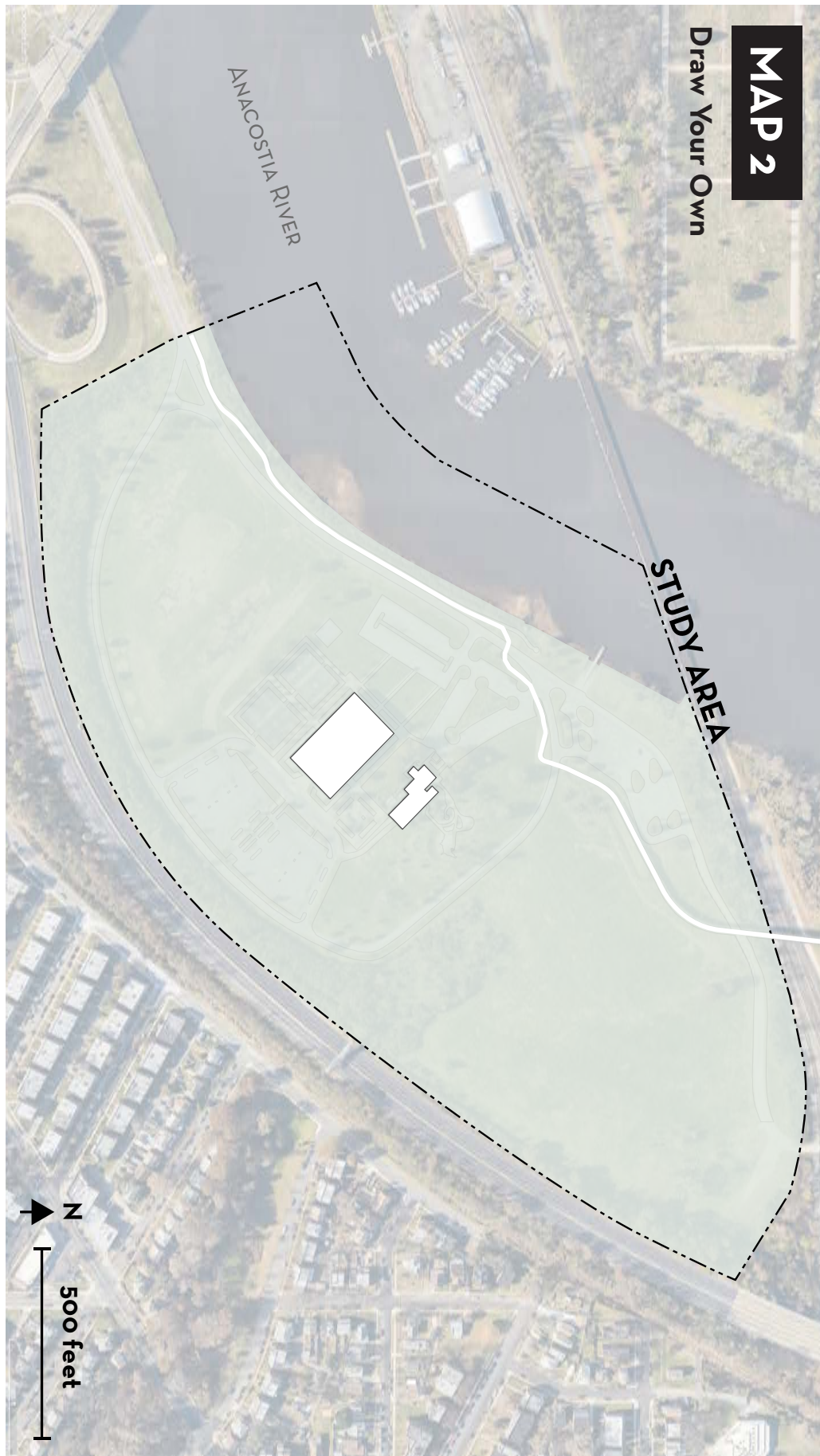
CALCULATING YOUR TOTAL COST AND BENEFITS

3

Once you have finalized a design for the park, add up the total cost (in tokens) and total Benefit Points for your design.

A table is provided on the next page for you to list each feature used in your design and record how many tokens it cost and how many of each different Benefit Point type it earned. You can add up the total numbers at the bottom.

Remember, your team has a total budget of 50 tokens. If your design costs more than 50 tokens, you will have to remove or change some of the features.

TIP: Don't forget the goal is to have a balance of Benefit Points to create a environmentally sustainable and community friendly park.

Cost and Benefit Calculator

Feature	Cost (Tokens)	Environmental Benefits			Community Benefits			Other
		Habitat Creation	Water Quality	Pollution Prevention	Recreation	Comfort	Community Building	Create Your Own
Total:								

Preparing Your Design Presentation

4

Your team must prepare a presentation to share your design. Teams will present their projects to a group of other students from around the District, and to a panel of judges who will select the winner!

Your presentation must include:

- Graphics, models, or pictures of the park with the new features you have selected
- A 300 word summary to explain your idea. Your summary should include (but not be limited to):
    - A title
    - The park concerns addressed by your design
    - Explanation of solution and scope of your project (How will this benefit the environment? How will it benefit the community?)
    - Explanation of resources needed
    - Concluding statement
    - Visuals
    - References
- A table with the total tokens spent and total Benefit Points earned

Your team will have 5-7 minutes to present to the judges. Practice your presentation with your team in front of your teacher. It might be helpful to write out notes or a script to remind you what to say during the presentation. If you have pictures or drawings you are proud of, be sure to draw the judges' attention to them.

The judges will use a scoring guide to calculate your presentation score, which is included for your reference on the next page.

Judge's Scoring Rubric

CRITERION	BELOW EXPECTATIONS (1 POINT)	MEETS EXPECTATIONS (2 POINTS)	EXCEEDS EXPECTATIONS (3 POINTS)	SCORE
INNOVATION & CREATIVITY	• Identifies minor issues in Anacostia Park and proposes common features. • This project is unlikely to be implemented. • No extra research steps were taken.	• Identifies important local issue(s) in Anacostia Park and uses existing park features in a new way. • This design seems plausible to happen at the local level. • Some extra research steps were taken (e.g. field trip, interviews, etc.)	• Identifies a substantial community and environmental issues related to Anacostia Park and uses a new ideas or existing features to address those issues in a highly creative manner. • Extra research was taken to inform solution (e.g. field trip, interviews, etc.)	
COMPREHENSIVE SCOPE	• Design proposes little or no improvements to existing park.	• Solution would have positive environmental and/or community benefits, but design does not have a well-rounded mix of many different kinds of benefits.	• Solution would result in a broad and balanced mix of both environmental and community benefits.	
BUDGET	• A budget was not correctly calculated and/or included.	• The total budget exceeds 50 tokens or is significantly less than 50 tokens.	• The total budget is near 50 tokens but not over 50 tokens, and/or included original feature ideas and estimated their token cost.	
VISUALS	• Visuals are unclear, unattractive, or ambiguous. • Visuals do not add new information.	• Some visuals are used, but are not clearly explained. • Visuals support the project.	• Visuals are unique, appealing, descriptive, and accurate. • Visuals significantly enhance the idea, such as hand drawings, photographs, PowerPoint presentations, etc.	
PRESENTATION	• No clear introduction or conclusion. • No references provided; may have copied a single source. Little research. • Poor enthusiasm, eye contact, posture, and voice projection. • Does not engage the judges. • Not all group members speak. • Poor response to judge's questions.	• Has an introduction, body, and conclusion but flow between ideas is weak. • Several sources provided. Some research. • Good enthusiasm, eye contact, posture, and voice projection. • Judges are engaged in the presentation. • Not all group members speak. • Good response to judge's questions	• Introduction, body, and conclusion are captivating, flow smoothly and are well-balanced. • Many sources cited throughout proposal. Extensive research. • Excellent enthusiasm, eye contact, posture, and voice projection. • Judges are engaged. The presentation is interesting and empowering. • All group members speak (does not have to be equal but each member must verbally participate) • Confident and accurate response to judge's questions.	
			Total	

Vocabulary

Bat House
A human-made habitat for bats, often shaped like a box and hung in trees or other high areas.

Beehives
A human-made home for a colony of bees, often shaped like boxes that can be stacked together.

Composting Toilet Bathrooms
Through the process of decomposition, composting toilets turn human waste into rich fertilizer. Composting toilets do not use water, instead waste is composted with carbon-rich sources like wood shavings, bark mulch, and leaves. The end product is a soil-like material that can be used in gardens.

Floating Wetland
Floating wetlands are gardens of marsh plants that float on water, held together by a plastic grid and the plant roots that grow together.

Green Infrastructure
Practices that help keep our water, air, and land clean.

Green Spaces
Land that is partly or completely covered with grass, trees, shrubs, or other vegetation.

Habitat
Areas that provide food, water, and protection for wildlife.

Impervious Surface Removal
Impervious surface removal entails replacing hard surfaces that do not allow water to soak into the ground with vegetation or permeable surfaces. Common impervious surfaces are parking lots, driveways, sidewalks, basketball courts, tennis courts, and skateparks.

Impervious
Materials that do not absorb water.

Litter
Trash (e.g. paper, cans, and bottles) that is left lying in an open or public place.

Living Shoreline
In a living shoreline, plants and other organic materials such as rocks and sand, are stationed along the shoreline and serve as a barrier between the land and water.

National Park
A scenic or historically important area of countryside protected by the Federal government.

National Park Service	The federal government agency that protects National Parks.
Native Plants	Native plants are trees, shrubs, and flowers that naturally exist in a region. Native plants in Washington D.C. include Sugar Maple trees, American Honeysuckle vines, and much more.
Native Shade Tree	Shade trees are large trees with widespread, dense canopies. A shade tree is taller than 25 feet at maturity. Commonly planted shade trees in the District include oaks, maples, ashes, and elms.
Permeable	Materials that absorb water.
Permeable Pavers	Permeable pavers are made from porous materials, which means small holes or openings allow water to pass through the pavement and drain into the ground. These paving materials can be as strong and durable as traditional paving materials such as concrete, asphalt, or compact gravel.
Pollinator Garden	Pollinator gardens are made up of special flowers like milkweed, dandelions, and daisies. These flowers attract pollinators like bees, butterflies, and bats by providing food and shelter.
Rain Barrel	Rain barrels capture and store the rainwater running off a rooftop. The harvested rainwater can be stored for later use, released slowly over time, or be used immediately for watering lawns and landscaped areas, or washing cars.
Rain Garden	A rain garden is a garden that is designed to slightly dip into the ground to trap and filter rainwater.
Recreation	Activities such as walking, basketball, and bird watching, that are typically enjoyed outside.
Stormwater Runoff	Rainwater that travels across the ground and flows into larger bodies of water such as streams or rivers.
Stormwater/Rainwater	Water that comes from rain.

Park Features

This section of the toolkit lists some potential features you may want to include in your design.

Remember, you may come up with additional ideas and include them in your project! If you can think of ways to earn more types of Benefit Points than the ones suggested in this section, include them in your project and tell the judges why you think they earn more points.

DID YOU KNOW?

- Amenities such as playgrounds and basketball/tennis courts often require hard, flat surfaces made of concrete or asphalt. These materials damage the soil and the critters that live in them. They also prevent rainwater from seeping into the ground, causing flooding, and air and water pollution. To mitigate the effects of these amenities, consider adding more trees, gardens, and other green spaces around the area.

- Permeable pavement can act as a great addition to playgrounds, basketball/tennis courts, and other surfaces that are typically hard and rigid. Unlike regular pavement, permeable pavers allow more stormwater to seep into the ground and promote clean, green communities.

- Living shorelines can be great additions to boat ramps. Unlike regular boat ramps, living shorelines provide wildlife habitat and decrease flooding and erosion.

- Unlike traditional toilets, compostable toilets don't require water to function, and also create a rich fertilizer you can use for your gardens.

List of Suggested Park Features

Feature	Cost (Tokens)	Environmental Benefits			Community Benefits		
		Habitat Creation	Water Quality	Litter Prevention	Recreation	Comfort	Community Building
Baseball Field	$ $ $ $				●		●
Basketball Court	$ $ $ $				●		●
Bat House	$	●					
Beehives	$	●					
Bench	$					●	
Bike Path	$ $				●		
Bike Racks	$				●		
Community Center	$ $ $ $				●	●	●
Community Garden	$ $	●					●
Composting Toilet Bathrooms	$ $ $ $		●	●		●	
Concession Stand	$ $ $					●	●
Covered Picnic Area	$ $					●	●
Dog Waste Station	$			●			
Drinking Fountains	$					●	
Fishing Dock	$ $ $ $				●		
Floating Wetland	$ $ $ $	●	●				
Grilling Station	$ $						●
Hammock	$					●	
Impervious Surface Removal	$ $ $		●				
Kayak Rental	$ $ $				●		●
Lighting	$					●	
Living Shoreline	$ $ $ $	●	●				
Native Bird Nesting Platform	$	●					
Native Plants	$	●	●				
Native Shade Trees	$	●	●			●	
Nature Trail	$ $	●			●		
Outdoor Classrooms	$						●

Feature	Cost (Tokens)	Environmental Benefits			Community Benefits		
		Habitat Creation	Water Quality	Litter Prevention	Recreation	Comfort	Community Building
Outdoor Fitness Equipment	$ $				✓		
Permeable Pavers	$ $ $		✓				
Picnic Tables	$ $					✓	✓
Playground	$ $ $				✓		✓
Pollinator Garden	$ $	✓					
Public Art	$ $						✓
Rain Barrel	$		✓				
Rain Garden	$ $	✓	✓				
Recycling Container	$			✓		✓	
Signage	$					✓	
Skate Park	$ $ $ $				✓		✓
Soccer Field	$ $ $				✓		✓
Solar USB Charging Station	$ $					✓	
Splash Pads	$ $ $				✓		✓
Swimming Hole	$ $ $ $				✓		✓
Tennis Court	$ $ $ $				✓		✓
Traditional Bathrooms	$ $ $					✓	
Trash Container	$			✓		✓	
Trash Trap	$ $		✓	✓			