



Samuel Myers Park Restoration Project

A Cooperative Effort...

- Multiple City of Racine Departments
 - Health (lead), PRCS and Public Works
- Root-Pike Watershed Initiative Network
 - Volunteer support and public engagement
- Friends of Samuel Myers Park
 - Volunteer support and fundraising
- Lakeside Curative Services, LLC
 - Volunteer support
- The Ozaukee Washington Land Trust
 - Invasive species management and control

History of Samuel Myers Park & Surrounding Area

- Northern breakwater connected to land in 1970's
- Samuel Myers Park dedicated in 1984
 - Included upland parkland and a small craft boat launch (no beach)
- Changes in hydrology (water movement) resulted in removal of sand deposits comprising 14th Street Beach
 - Some sand migrated to below Sam Myers Park
- Bluff below S. Main Street fortified to prevent erosion which could compromise city infrastructure and housing
 - Stairs to old 14th Street Beach removed

History of Samuel Myers Park & Surrounding Area (cont.)

- Limited circulation and siltation resulted in additional sand/sediment deposits below Sam Myers Park
- Health Department tested surface water quality to determine safe uses
 - Swimming banned in 1990's due to high bacteria
 - Revisited in 2007, no significant change, ban remains
- Grant funding secured to determine sources and/or conditions resulting in poor surface water quality
 - One of 19 beaches tested in SE WI

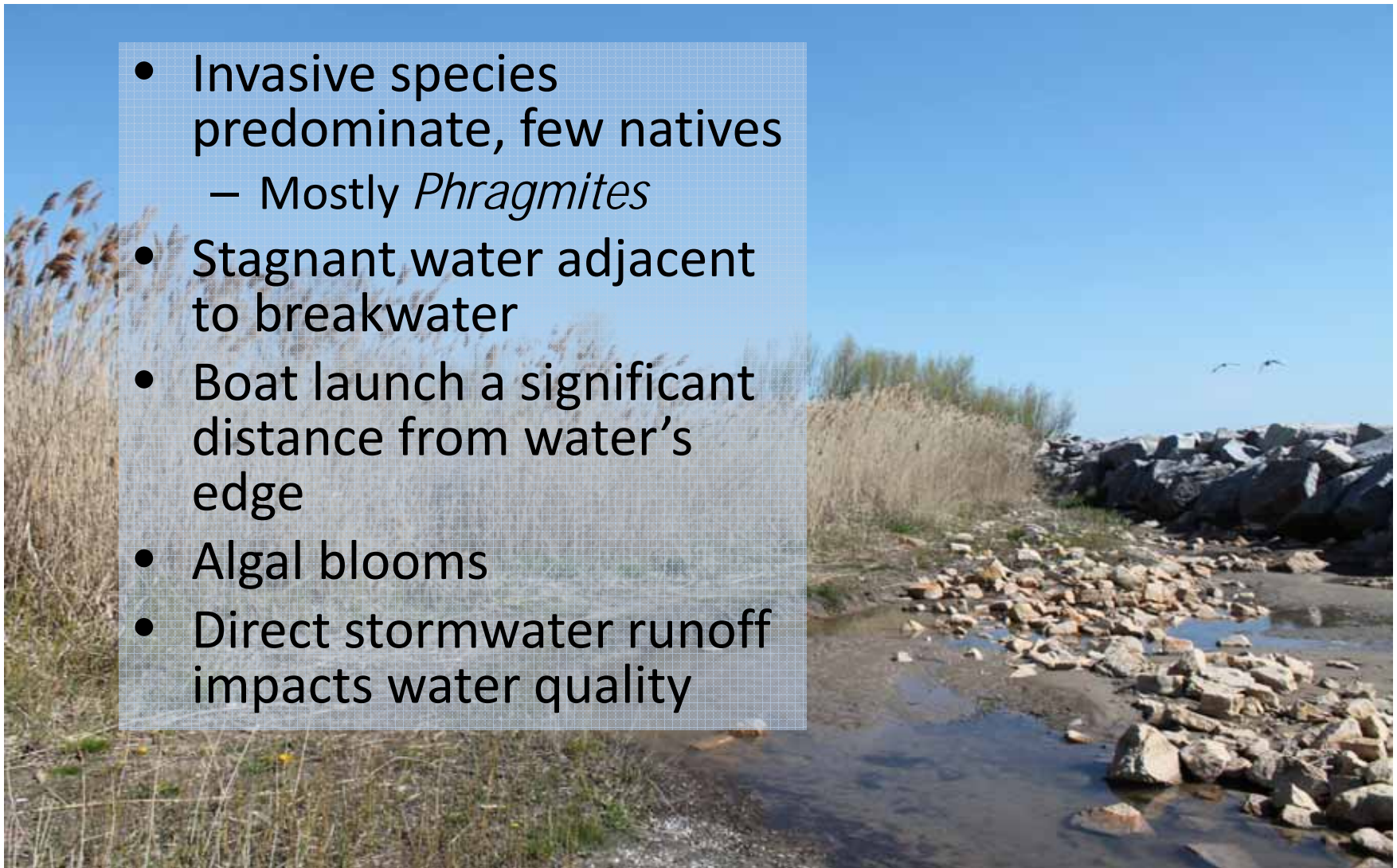
Current Uses of Sam Myers Park

- Contiguous to Lake Michigan Pathway
 - Walking
 - Walking pets
 - Biking
- Boating related
 - Fishing
 - Kayaking/canoeing
 - Jet skiing
- Wading/swimming



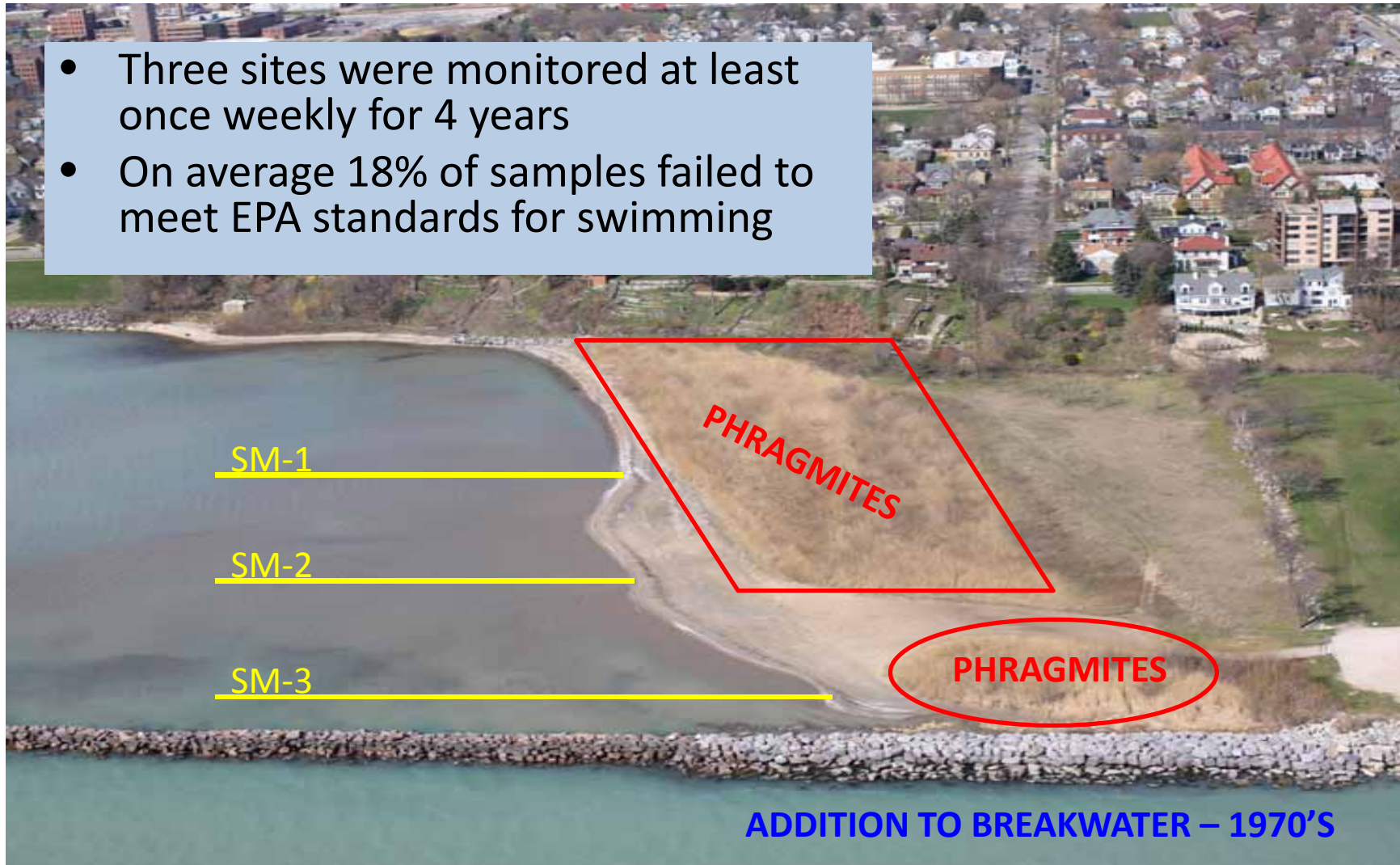
State of Sam Myers Park

- Invasive species predominate, few natives
 - Mostly *Phragmites*
- Stagnant water adjacent to breakwater
- Boat launch a significant distance from water's edge
- Algal blooms
- Direct stormwater runoff impacts water quality



Surface Water Quality(2010-2013)

- Three sites were monitored at least once weekly for 4 years
- On average 18% of samples failed to meet EPA standards for swimming



Sources of Pollution Identified

- Water quality increases as a function of distance from the shore and depth
 - Shallow water had higher bacteria counts
- High bacteria counts noted in sediments close to the water's edge
- Quality decreased when water became more turbid (cloudy)
- Water quality was worse after rain
 - Surface runoff across sand surface and down boat launch
 - Stormwater discharge from pipes
- Stagnation near the breakwater can negatively influence surface water quality
- Gulls and geese could be a source of pollution

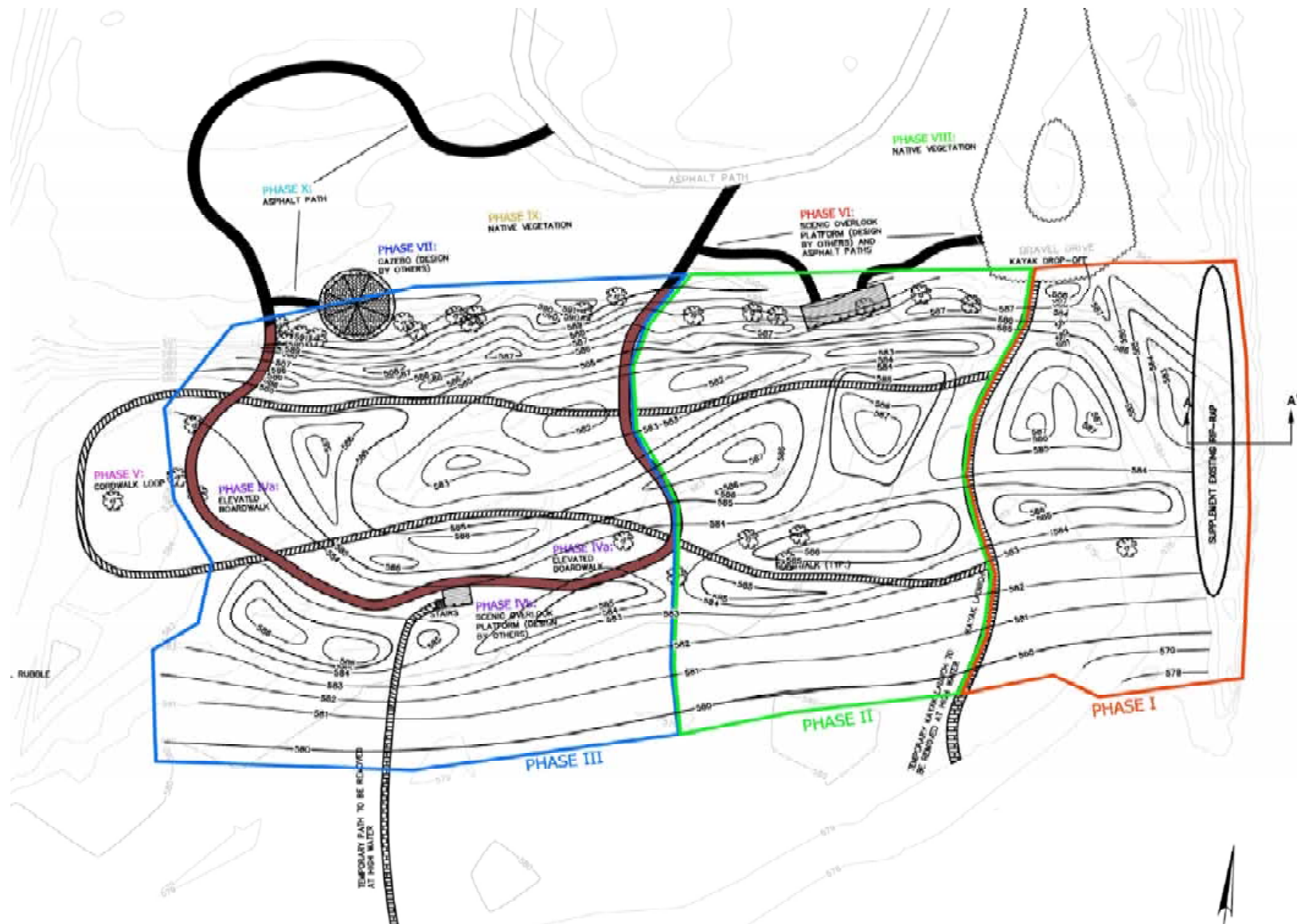
Restoration Approaches

- Reduce direct stormwater runoff
- Prevent stagnation along the breakwater
- Maintain beach sands
- Deter loafing gulls and geese
- Remove and manage invasive species
- Restore coastal habitat (flora)
- Encourage native fauna (bird flyway)
- Improve public access
- Create recreational amenities
 - Including off-shore swim zone

Park Redesign Elements

- Improve circle drive & parking lot
 - Rain gardens/bioswales to capture stormwater
- Raise 200 lin. ft. of breakwater by 3 ft.
- Lengthen canoe/kayak launch (permeable)
- Create walking paths (incl. ADA compliant access)
- Add passive use features (overlooks, benches,...)
- Use dune features to capture surface runoff
- Install native vegetation (habitat and aesthetics)
- Restore wetland area

Engineering Plans Completed 8-2013



3D Model Completed 12-2013

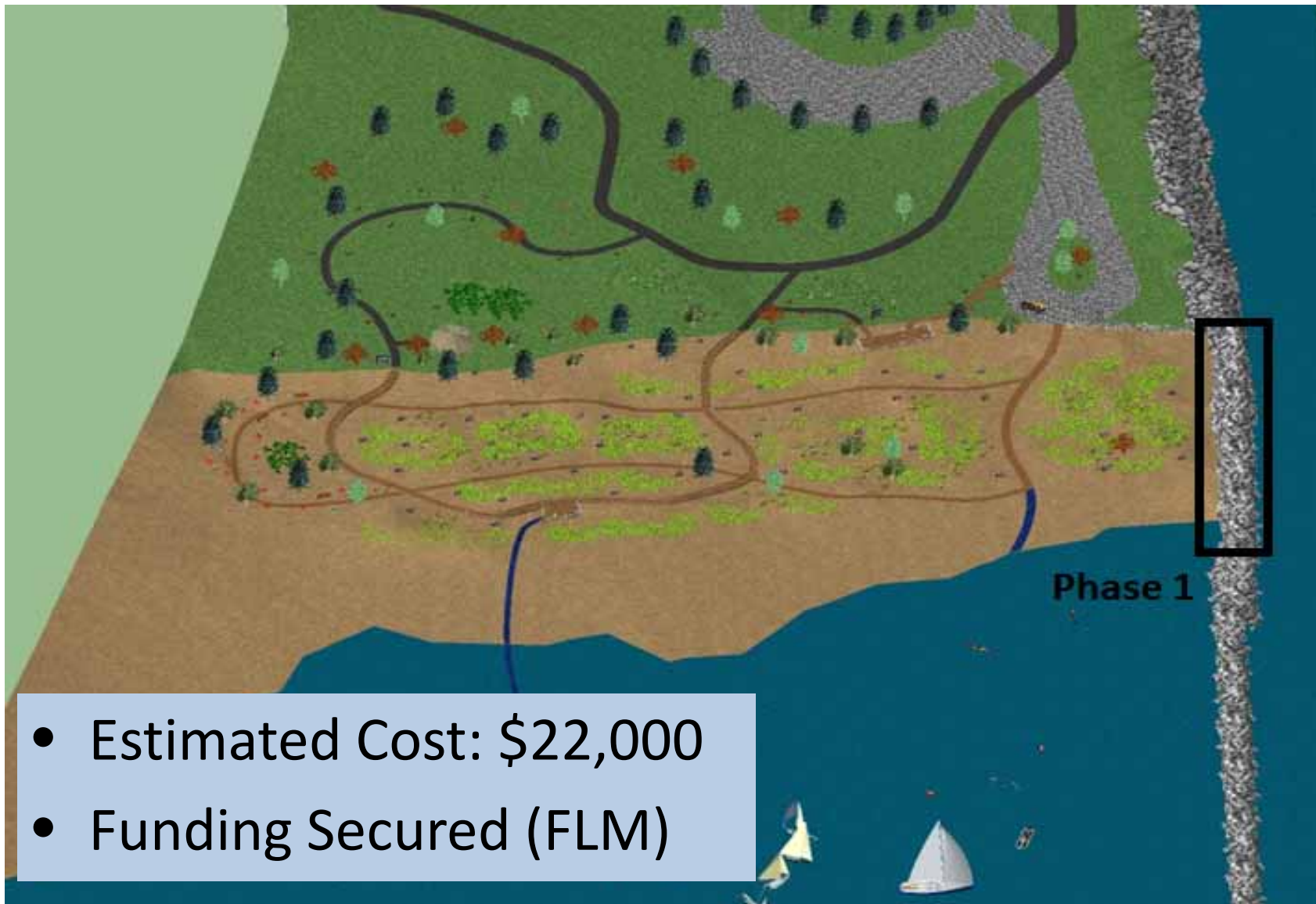


11 PHASE Implementation Plan

- Project implementation was partitioned in order to secure funding
- Each PHASE is integral to the whole but can stand alone as an “added value” feature
- Each PHASE will:
 - Address pollution
 - Manage invasive species
 - Restore coastal habitat
 - Improve site aesthetics
 - Create recreational value
- Costs based on continued volunteer support
- Permits have been applied for

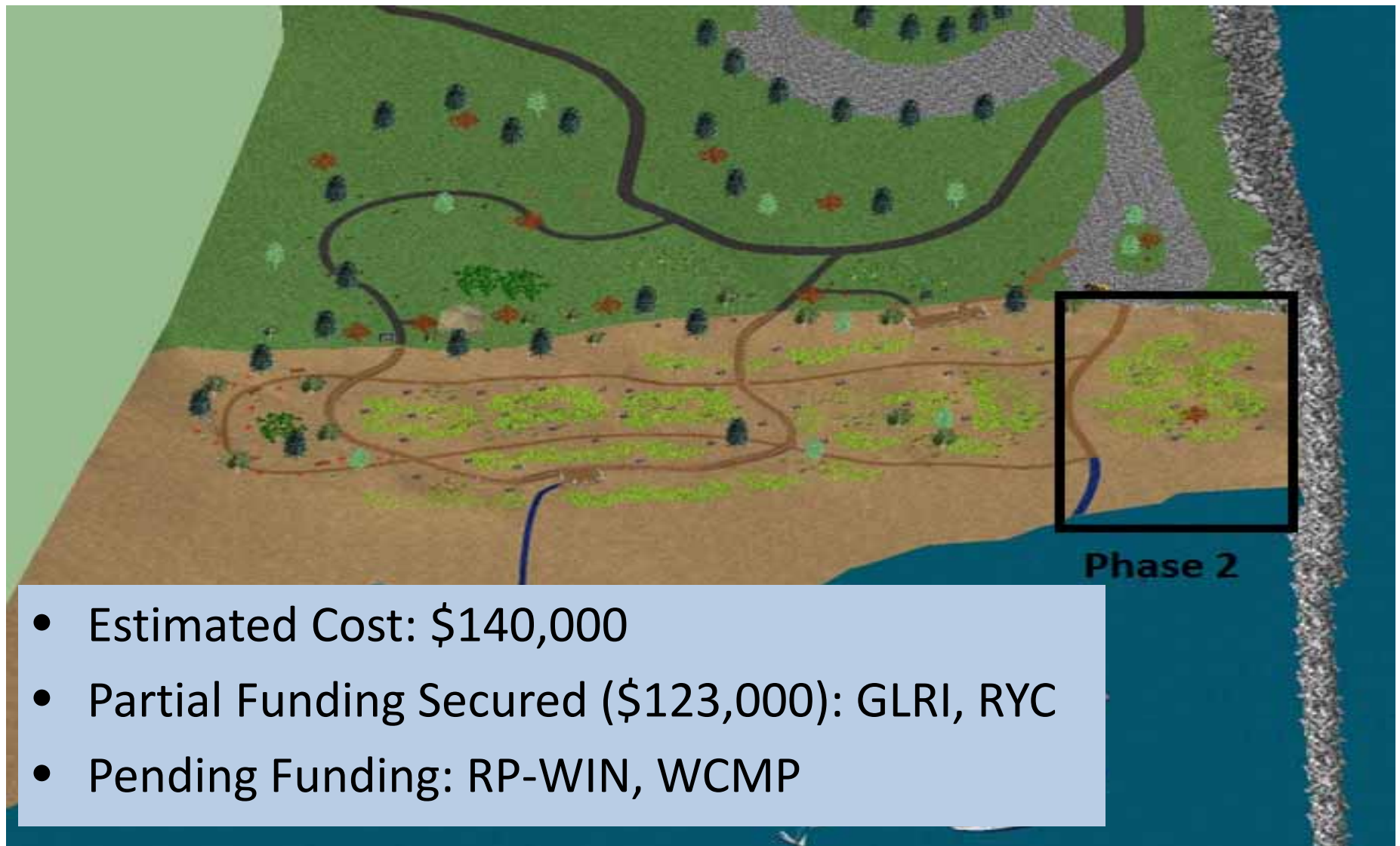


PHASE 1 – Raise Breakwater



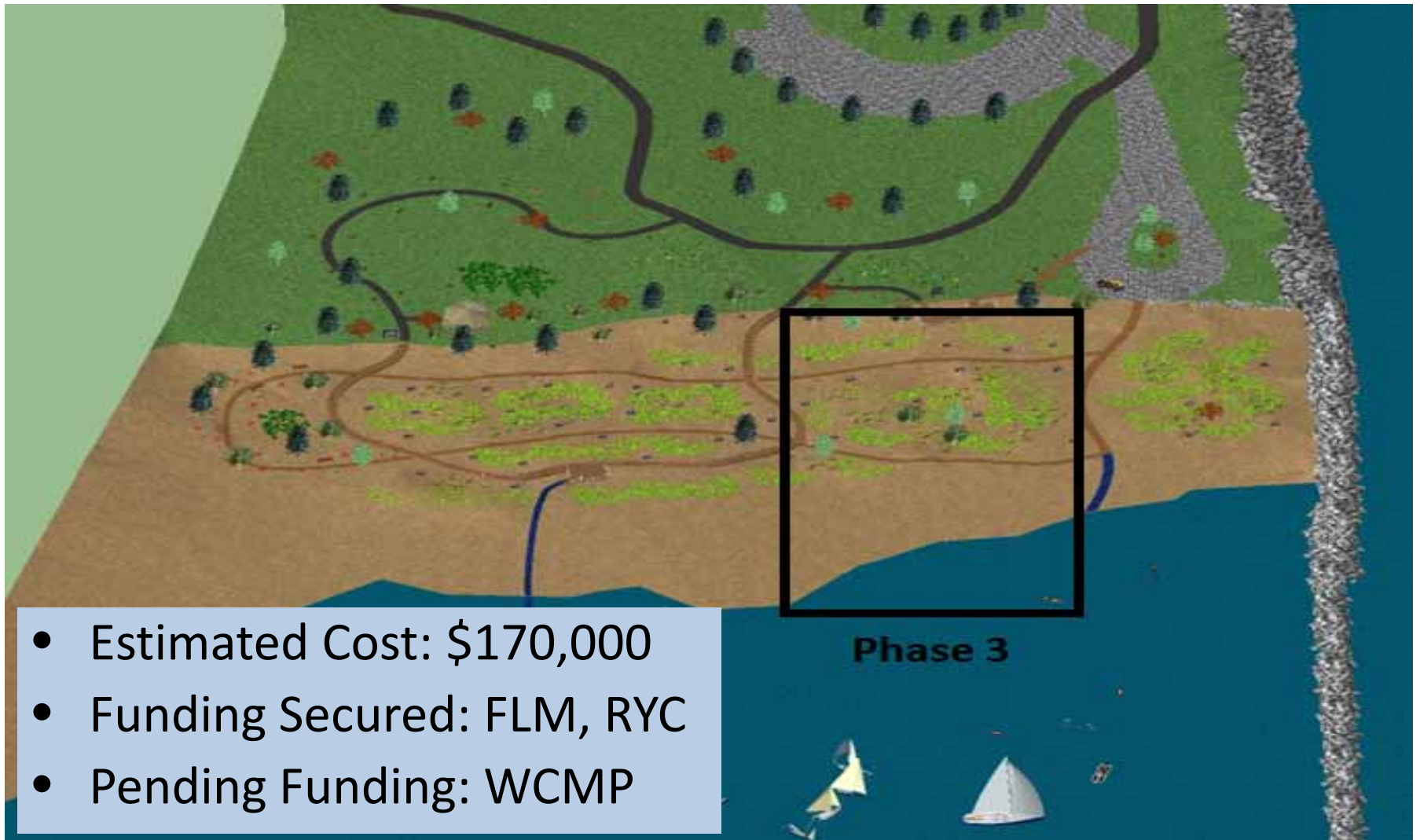
- Estimated Cost: \$22,000
- Funding Secured (FLM)

PHASE 2 – Beach Nourishment, Native Vegetation, Canoe/Kayak Launch and Mobi-Mat™



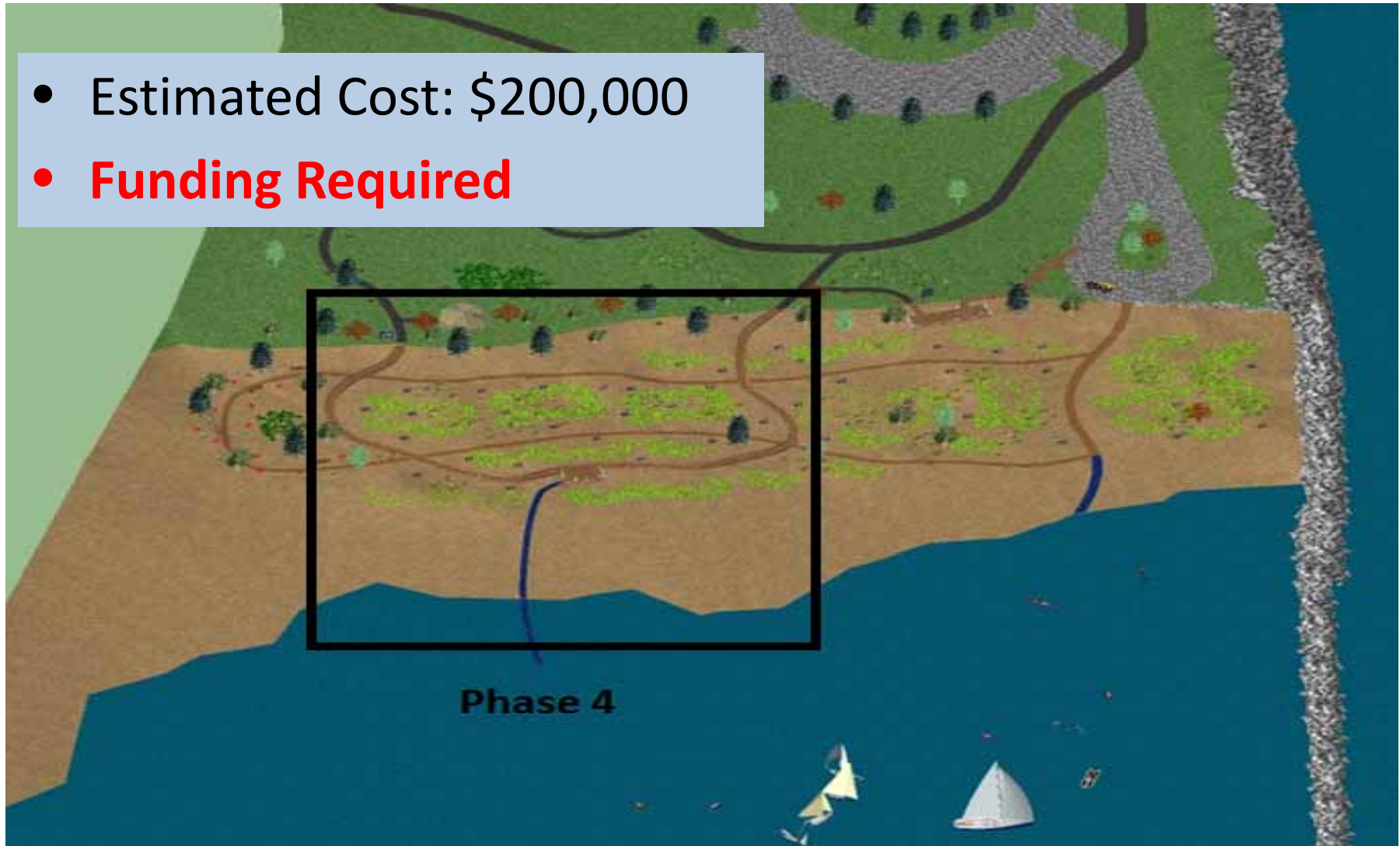
- Estimated Cost: \$140,000
- Partial Funding Secured (\$123,000): GLRI, RYC
- Pending Funding: RP-WIN, WCOMP

PHASE 3 - Beach Nourishment, Native Vegetation, Cordwalk Path



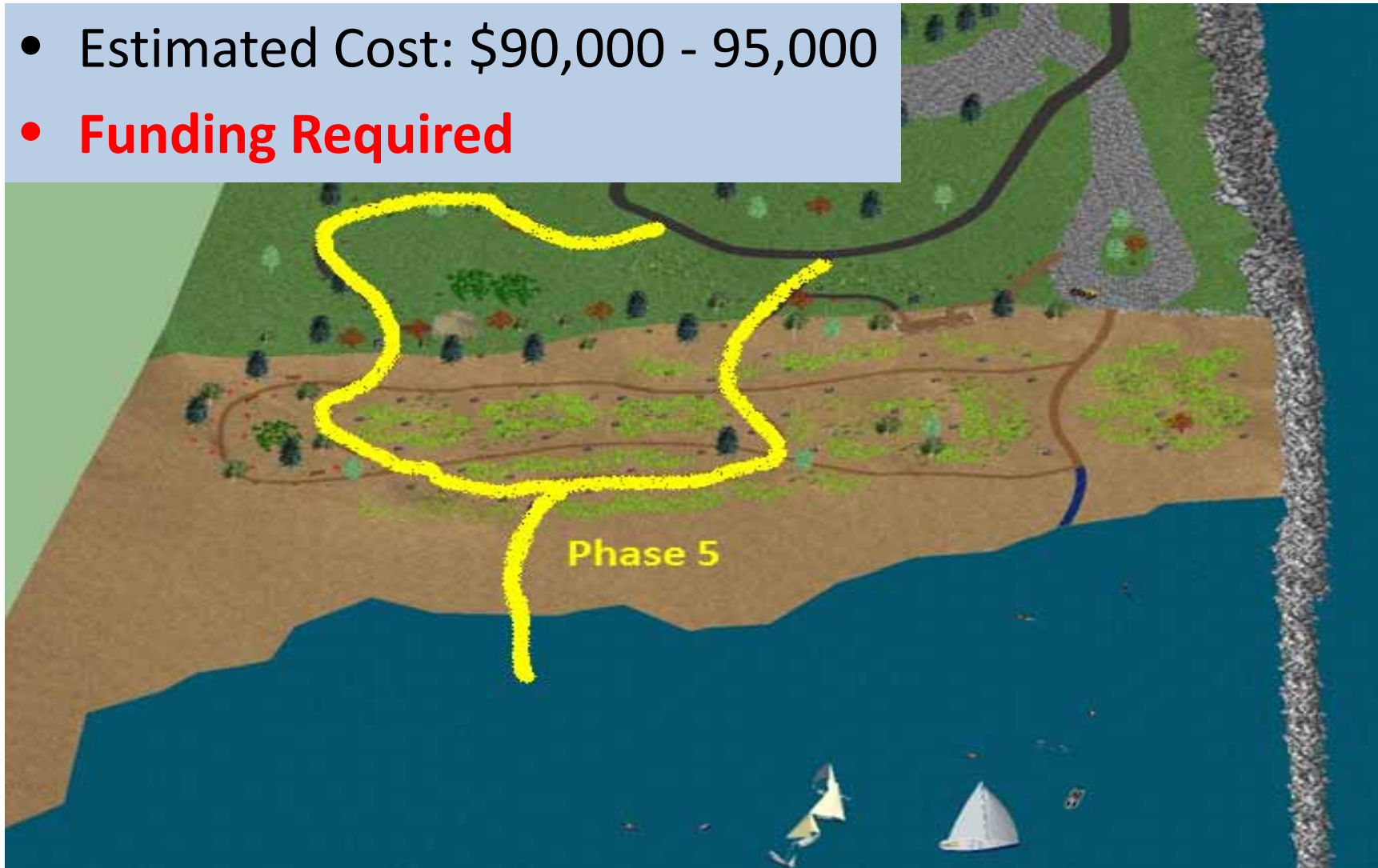
PHASE 4 - Beach Nourishment, Native Vegetation, Cordwalk Path

- Estimated Cost: \$200,000
- **Funding Required**



PHASE 5 – ADA Compliant Boardwalk, Asphalt Spurs, Scenic Overlook, Mobi-Mat™

- Estimated Cost: \$90,000 - 95,000
- **Funding Required**

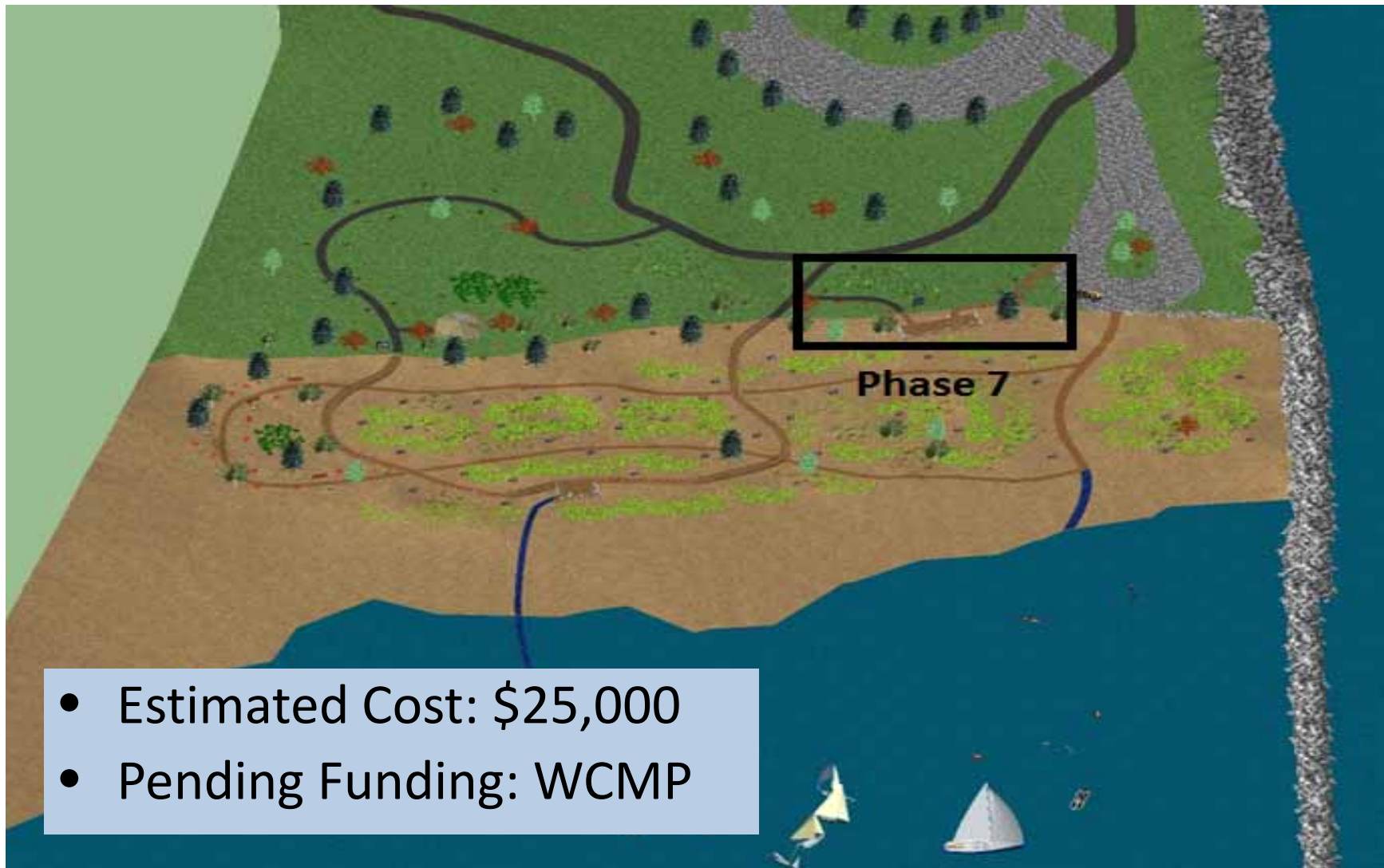


PHASE 6 – Extension of Cordwalk Path, Native Vegetation, Benches

- Estimated Cost: \$10,000
- **Funding Required**



PHASE 7 – Large Scenic Overlook, Asphalt Spurs, Educational Signage

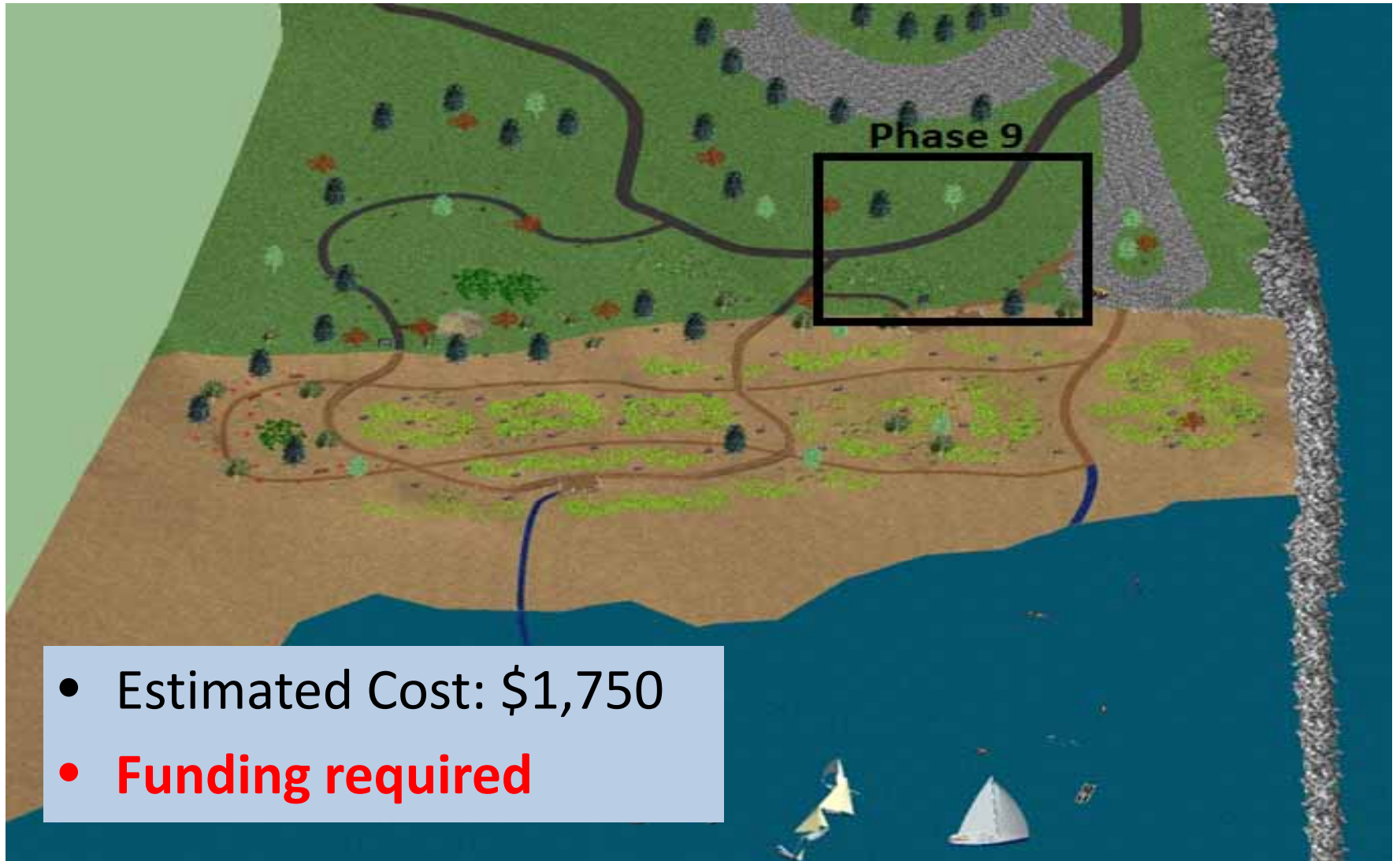


PHASE 8 – Gazebo, Asphalt Spurs, Educational Signage, Picnic Tables



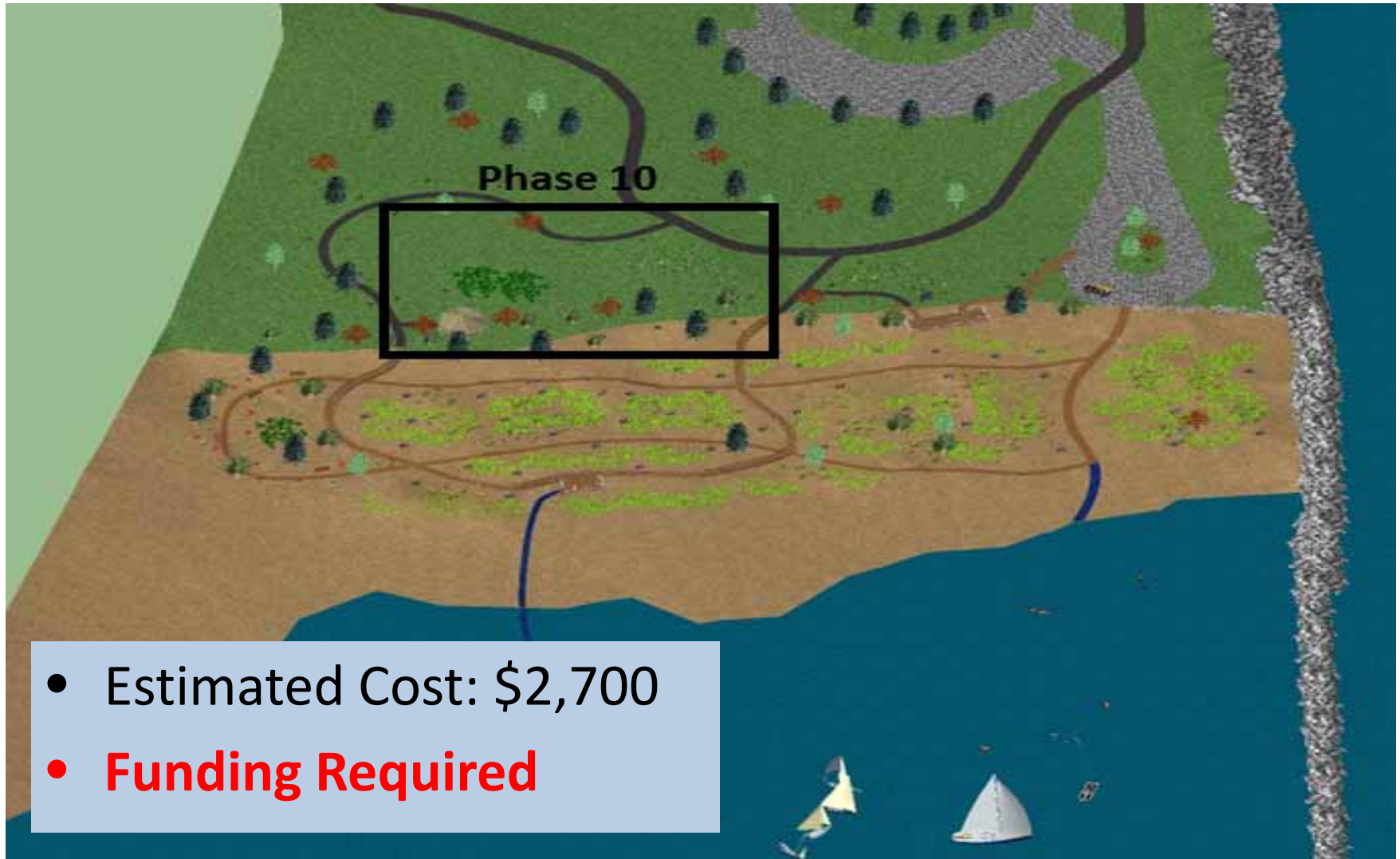
- Estimated Cost: \$35,000
- **Funding Required**

PHASE 9 – Native Vegetation, Butterfly Gardens, Bird Houses



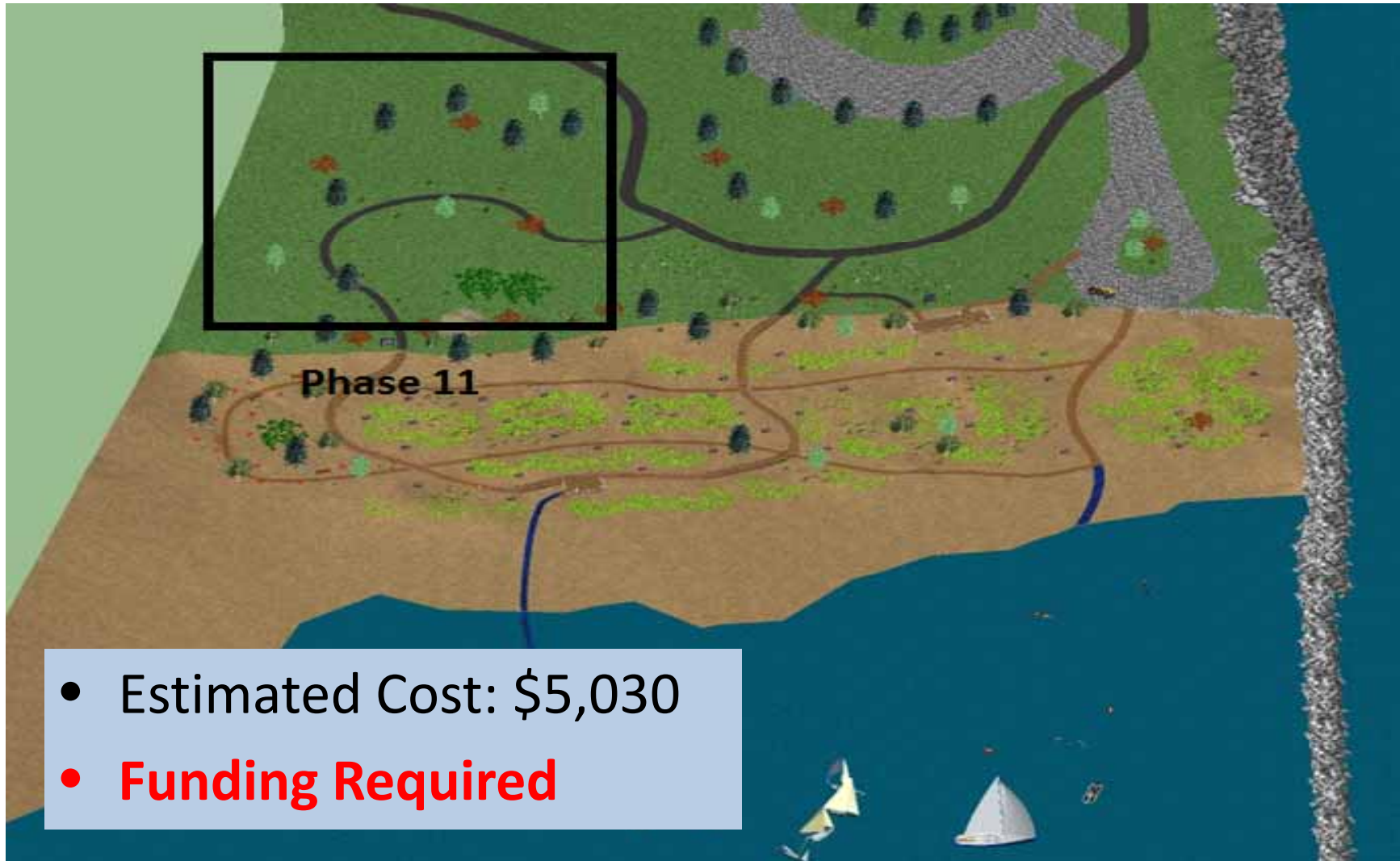
- Estimated Cost: \$1,750
- **Funding required**

PHASE 10 – Native Vegetation, Butterfly Gardens, Bird Houses, Picnic Tables



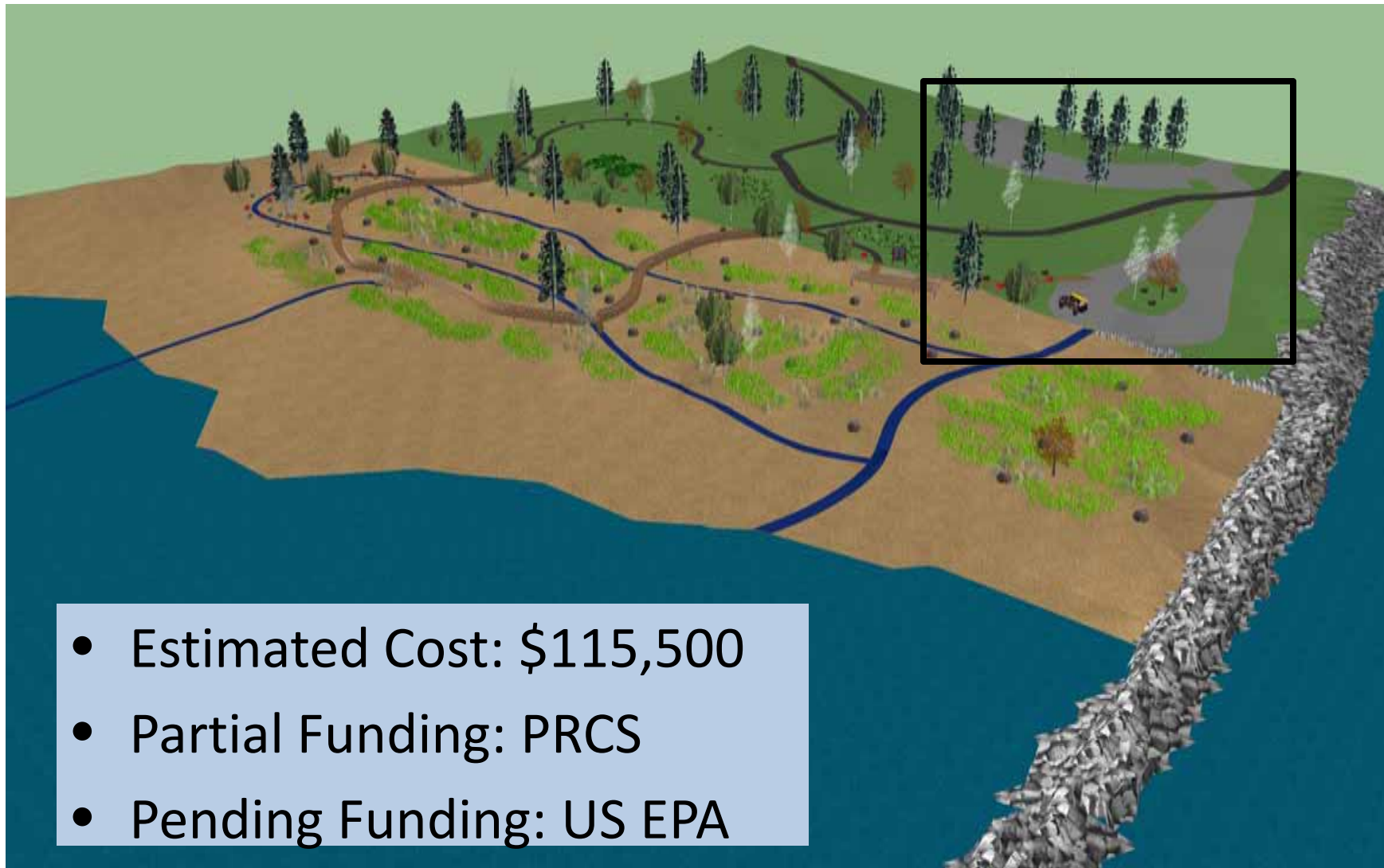
- Estimated Cost: \$2,700
- **Funding Required**

PHASE 11 – Native Vegetation, Picnic Tables, Educational Signage



- Estimated Cost: \$5,030
- **Funding Required**

Parking Lot and Circle Drive Improvements



- Estimated Cost: \$115,500
- Partial Funding: PRCS
- Pending Funding: US EPA