Presented by:
Moderator - Diane Williamson – Director; Community Development
Janet Coit – Director RI DEM
Wenley Ferguson – Restoration Coordinator; Save The Bay
Walter V. Burke – Director; Bristol Parks and Recreation

By: Walter Burke; Director
Bristol Parks and Recreation

“Environmentally Responsible Management of Parks and Public Spaces”
Bristol Town Beach and Sports Complex:

Bristol Town Council
Mary A. Parella, Chairman
Halsey C. Herreshoff, Vice Chairman
Nathan T. Calouro
Edward P. Stuart
Timothy E. Sweeney

Town Administrator
Antonio A. Teixeira

Recreation Board
Ed Quinn, Chairman
Michelle Mascena, Vice Chairman
Nancy Horne
Karl Antonevich
Diane Davis
Crystal Pacheco
William Cain

Bristol Department of Parks and Recreation
Walter V. Burke – Director
Sarah Klein – Assistant Director
10 Court Street
Bristol, Rhode Island 02809
Phone: (401) 253 1611
Protecting our Environment

REVIEW YOUR PROPERTY

- Topography – Direction of land
- What kind of buffer zone frames property
- Storm Drains – How many / locations
- Wetlands – Don’t ignore them
- Septic System / Sewer lines
- Invasive Plants - poison ivy / bitter sweet
- Ground Water – Does water infiltrate
- Invasive Birds – Canada Geese / Swans
- Trees – Do an inventory – health of trees
- Traffic Flow – Keep cars away from water
- Native Plants – re-introduce into the park
- Contributing Factors – Currents; Neighbors; Boating;
- Fertilization – Chemical vs. Organic
- Use of salt on roads and parking lot in winter
- How are you adapting to sea level rise – what are the effects of Beach erosion
Protecting our Environment

WHAT WE OBSERVED

- Our land slopes toward the Bay
- We found four storm drains
- One wetland area - in poor shape
- Two Septic leaching fields (poor condition)
- Large amount of invasive plants
- Beach field saturated most days – bowled in the middle
- Geese gathering on beach field
- Most trees dangerous
- Kids screeching tires – driving near beach
- Sewer plant in Warren – Prov. River
- Sport field fertilized with chemicals
- We use to use salt but have stopped
Make a Plan

Collaborate  -  Bring in the experts

Department of Environmental Management
Coastal Resources Management Council
Department of Health
Department of Transportation
Environmental Protection Agency
Army Corp of Engineers
Natural Resources Conservation Services
Save the Bay
Other federal organizations such as NOAA, National Parks Service etc.
Local Conservation Groups

The resources they provide is crucial to the success of your facility

THEY ARE NOT YOUR ENEMY !!!!!
WHAT THEY BRING TO THE TABLE

- Professional Experts in specialized areas
- Personnel and departmental resources
- Historical perspective – GIS mapping
- The bigger picture – surrounding communities
- Equipment – beach groomers – low impact backhoes
- They help you understand permit requirements
- Liability protection
- Political clout – In a good way
- MONEY – Their collaboration legitimizes proposals
  - Grants – State, Federal, Private / Finding matching monies
Our Successes

- Removed two leaching fields and septic systems replaced with forced main sewer line;
- Installed vortex unit and bio swale on the north west corner of the 350 car parking lot;
- Installed new Parking Lot with six bio-retention “Rain Gardens”;
- Installed three bio retention water quality cells for parking lot and two playground areas;
- We planted over 125 trees;
- We raised the beach field by up to 3 feet & planted trees to eliminate Canada geese
- Installed a pervious pavers patio;
- Planted “marsh grass” along north side of beach;
- Planted a buffer of native plants on the northern border; and
- Conducted educational programs with our camp children.
- Last summer we had an 80% improvement in beach water quality. (closed only once in early June 2012) This summer 2013 had 0 closures.
ADDITIONAL PROJECTS

$270,000 project to build a large “gravel wet vegetated treatment system” which will treat storm water coming out of a 36” storm drain which drains 95 acres of residential neighborhood.

Repair of the outfall within the wetland to allow storm water to disperse within the wetland area;

$100,000 project to reduce the beach road from 20’ wide to 10’ wide – limit access to pedestrians and emergency vehicles only;

Create a scenic overlook on the south side of the beach;

Remediate erosion issues on the south side of the beach front

Installation of an educational kiosk along new pathways centered on teaching children the importants of protecting the environment.

Upgrade all our sport field lighting to energy efficient lighting and change all park lighting to LED.

Upgrade pumps and hydro fracture two artesian wells to conserve water resources.

Install a sports plaza to include a hockey rink, two basketball courts, two tennis courts, two bocce courts, a horseshoe court and three chess / checkerboard tables.
GRAVEL WET VEGETATED TREATMENT SYSTEM (GWVTS) PROFILE
FUTURE PROJECTS

- Restore the entire wetland area to help it be more productive;
- Open our new “Quinta-Gamelin Community Center”, and provide regional environmental training in partnership with our state agencies as stated earlier; Use of Solar Energy
- Remove and replace the beach sand to make it more sanitary for visitors;
- Design a plan to remediate the 1,458 acre Bristol watershed, which includes the Bristol Golf Course, Mt. Hope High School and Silver Creek. We have partnered with NRCS, RI Conservation Commission, Save the Bay, NE Conservation Services, Save Bristol Harbor and BW School District
**Funding**

In 2008, redesign of the parking lot began as a $70,000 Supplement Environmental Project (SEP), as required by the EPA.

- Installation of a drainage and piping system to control storm water runoff
- Installation of hoods and bacteria filters in catch basins
- Vegetative buffer between parking lot and beach at Bristol Town Beach
- Installation of a Vortechs storm water treatment system to capture fine-particle pollutants. Installation of a vegetated swale at the outfall of the drainage system

Section 319 Nonpoint Source Abatement and Management - $36,620 “Bristol Town Beach Storm water Pipe Retrofit Design and Permitting Project”
Funding

$1,000,000 State Revolving Fund (SRF) low interest loan; ARRA funds for the design and construction of a new “Green” Parking Lot, Beach Field and water quality enhancements.

In 2011, RIDEM contributed $220,000 through a second Section 319 grant. “Gravel Wet Vegetated Treatment System” to collect storm water discharge from a 36” storm drain and a small drain pipe on our northern boarder.

$100,000 DEM Trails Grant; To create walking trails, reduce beach access road from 20ft wide to 10ft wide; fix erosion issue on south side of beach.

$400,000 DEM large Open Space and Recreation grant to build the Sport Courts plaza

$150,000 DEM small Open Space and Recreation grant to upgrade to energy efficient lighting.