Barnegat Bay Stakeholders Meeting
June 25, 2010
Toms River Municipal Building

I. Problems (What's wrong with the Bay?)

1. Eutrophication (Cascading Ecosystem Decline)
2. Habitat loss and alteration
3. SAV decline
   - Seagrass biomass declines by 50-80% (2006)
   - Eelgrass decline >30% in estuary; >60% in Little Egg Harbor
4. Dissolved Oxygen impairment
5. Bacterial Impairments
6. Beach erosion/replenishment
7. No baseline- need bay wide monitoring/modeling/surveyor to identify problems
8. Water quality degradation
9. Beach closings
   - 56 New Jersey beaches closed in the 2009 summer season
10. Forest clearing
11. Reduced biodiversity
12. Nuisance and toxic algal blooms
13. Epiphytic infestation
14. Fishery declines
    - Declines in fin fish species (>11-13%)
    - Hard clam harvest declines by >99% (1977-2007)
    - No bay scallops found in seagrass beds (2006)
15. Bulkheading- nursery role of bulkhead areas are altered; not as biologically rich
16. Increases in Invasive Species (Sea Nettles, Chinese Mitten Crabs)
17. Thermal pollution
18. Scared sea grass- fish kills
19. Losing biodiversity, ecological functioning, and resources
20. Alterations in the patterns, quantities, and quality of surface and groundwater flows
21. Increased nutrients; and contaminant loads

II. Causes

1. Development and land use
2. Non-point Direct Discharges/ pollution
3. Industrial use—industrial discharge
4. Ground water withdrawals
5. Offshore sewage effluent diversions
6. Increasing amounts of storm water pathogens

7. Tritium leaks
8. Declining land areas/ open space
9. Increased urbanization
    - Current development is >30%
10. Septic system waste; leaky sewer pipes
11. Habitat loss and alteration
12. Poor construction practices
13. No management plan
14. Increased amounts of urbanization
15. Thermal pollution
16. Reduced fresh water flows/ altered salinity/ susceptibility
17. Chemical contaminants
18. Boats
19. Over fishing
20. Old infrastructure
21. Overuse of fertilizer
    - Lack of fertilizer options
22. Landscaping Practices
23. Home Improvements
24. Pet waste; animal manure
25. Trash/floatable
26. Bulkheading
    - 36% of the natural shoreline in Barnegat Bay has been bulkheaded
27. Hardened shorelines
28. Climate change
29. Marina operations
30. Air Deposition
    - Automobile emissions (exhaust includes nitrogen by-products)
    - Industrial emissions
    - Natural N-fixation processes
    - Emissions from agricultural resources
31. Lack of political will to make decisions and to enforce decisions
    - Institutional problems at DEP (conflict avoidance)
32. Irresponsible personal behavior
33. Oyster Creek
    - Impingement, Entrainment, Thermal Discharges
34. 5 year permit limits of NPDES permits
    - Fresh water alteration
    - Irrigation
    - Conservation
35. Failing Storm Water Basins/ Outfalls
        - Inconsistent/conflicting approach to managing SW to support sustaining infiltration

III. Goals

1. Fishable/Swimmable
    - Compliance with existing legal obligations
    - CWA, CZMA, WPCA, CAFRA, CCMP
2. Reduce eutrophication
3. To establish a sustainable recreational shellfish harvest population
4. Reduce the number of restricted shellfish growing areas
5. Improve water quality
6. Habitat restoration
7. Clamming become a valuable industry again
    - Bring jobs back
    - Bring resource back
8. Improve recreational access
9. Protect scenic quality
10. Education
    - In schools
    - Education based on science
    - Educate "summer" population
    - Political Education
11. Eliminate Dissolved Oxygen Problem
12. No new storm water discharges to the Bay
13. Retrofit existing storm water systems to capture nutrients
14. Restore SAV
15. DEP complies with CWA
16. Increase diversity of fin fish population
17. Fertilizer Bill
18. Work toward closing Oyster Creek
19. Improve water flow through the inlet
20. Restoration of stream flows
21. Birds- sustain species
22. Manage population growth

IV. Actions

A. Government

1. Improve DEP internal coordination on issues regarding the Bay
2. Implement/enforce storm water rule
3. Establish a Barnegat Bay Commission (with stable funding)
4. Establish a Storm Water Authority for Ocean Co.
5. Restricting development
6. Need to forcefully relay information to Commissioner and Governor

7. Ensure local government stand up and does what needs to be done
8. All new rules based on science with economic analysis

B. Funding

1. User fees
   - Registration (boat)
   - License (beach fee)
   - $1 dollar from beach fee goes to Barnegat Bay
2. Other funding sources: Increase gas at marinas by .1 cent (money goes to Barnegat Bay fund)
   - Increase gas cost? Parkway tolls? Tax? –open space tax
3. Prioritize Federal money to BB (DEP) SRF/grants
4. Federal consistency dollars to Barnegat Bay
5. Establish storm water authority (utilities) for Ocean Co.
6. Consider Senator Smith Bill- fee associated w/ nitrogen
7. Development of impact fees
8. Fees from Island Beach State Park- should go to BB fund
9. Any enforcement fines to Barnegat Bay fund
10. 319 funds be directed to evaluate infiltration strategies and methods for storm water management

C. Recreation

1. Determine critical levels and speeds of boating in the bay
2. No boats in shallow water- to protect SAV
3. Implement buffer zones/ need protection for waterways(Barnegat Bay is a Category 1)
4. Enforce boaters no discharge zones
5. Restore opportunities for clamming and crabbing

D. Public Health

1. Oyster Creek
   - Address spent fuel rods storage
   - Address tritium leaks
2. Septic system upgrades
3. Improve bacteria testing
4. Ensure clams, crabs, and fish are safe to eat

E. Ecological

1. Increase marine conservation zones
2. Include human element in ecological assessment/ modeling
3. Expedite cooling towers at Oyster Creek
4. Implement State Wildlife Action Plan
5. Inventory of shellfish/clams
   - Continue hard clam mortality study

6. Mandate Clean Marina Program
7. Create adaptation strategy for species through climate strategies

F. Education

1. All roads labeled with signs about watershed
2. Mandatory education in public schools and for local governments
3. Buffer the Bay programs
4. Boating safety classes
   - Educate Boaters on impacts to the bay
5. Use of native vegetation in landscaping

G. Water Quality and Quantity

1. Retrofit parking spaces to improve infiltration (e.g. rain gardens)
2. Regulate fertilizer
3. Establish nutrient criteria
4. Prioritize acquisition for recharge areas
5. Create open space acquisition authorities
6. Don't extend WMPS to undisturbed areas
7. Expedite cooling towers at Oyster Creek (end of July)
8. Control tritium leaks at Oyster Creek
9. Too many boats – limit numbers
10. Add nutrient water quality standards in storm water rules
11. Ocean County Storm Water Utility
12. Expand C1s and enforce buffers
13. Ocean County WQMP address existing failing septic systems (include inventory of failing septic systems)
14. State NPS programs plan strengthened
15. SW BMPs for Nitrogen
16. No new water allocations from Kirkwood- Cohansey aquifer to encourage construction
17. Require cleaner boat engines
18. Maintain 10% impervious cover/ 33% max
19. Green Building- low impact development
20. Expand Clean Vessel Act (pump outs)
21. Mandate Clean Marina Program
22. Increase number of inlets
23. Remove pharmaceuticals from drinking water
24. Maintain base flow for ecological purposes similar to the Highlands approach
25. Do not implement Red Tape recommendations (harmful to BB- buffers/WAMP)
26. Adopt water supply master plan- ecological flow goals

H. Land Use Management

1. Impose no building zones
2. Buffer the bay
3. Retrofit/repair all storm water basins
4. Create Open Space Acquisition priorities
5. No rev SSA- undisturbed area
6. Direct 319 Funds to infiltration planting
7. BMPs for construction/reconstruction/rebuilding
   - Before remove moratorium- have plan in place
8. Coastal Land Acquisition funding
9. Park & Rides- instead of parking lots (OCC)
   - 2-3 story parking decks
10. Adopt and implement State Plan (mandatory)
11. Down grade any Pinelands Growth areas in BB watershed
12. Inventory stream bank erosion
13. Adopt general permits for planting stream bank stabilization
14. New land use strategies for impervious cover- not above 10%
15. Discourage septic systems
16. CZM funds should be used for BB as a special area
17. No net impact bill – Senate Smith funding for retrofits
18. Require native vegetation/ storm water mgmt practices
19. Minimize disturbance of existing native vegetation and reduce creation of lawns
20. Extend Coastal Planning Area impervious covers- limits to local zoning through WQMP

I. Research

1. Evaluate approaches in other bays
2. Evaluate benefits of watershed based planting (like Pinelands)
3. Need more monitoring of the bay
4. Look at NY Study on hard clams
5. Investigate recharge levels (pilot)
6. Need a good circulation model- baseline
7. Need more comprehensive monitoring of the bay