

## New Jersey Water Supply Authority

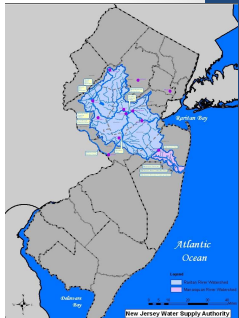

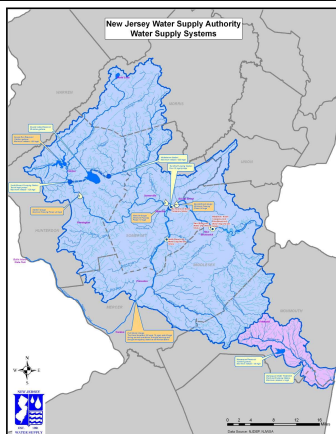

Independent state authority operating state owned water supply facilities:

- Spruce Run Reservoir - natural stream flow - 11BG
- Round Valley Reservoir - pumped storage - 55BG
- Delaware & Raritan Canal -100MG/day

Delaware & Raritan System serves 1.8+ million people in central New Jersey

- Manasquan Reservoir - pumped storage - 4BG

Manasquan System serves 300,000 people in Monmouth County

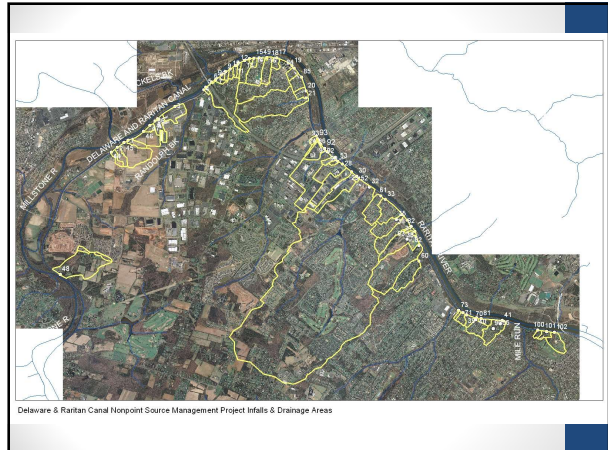
## Project History

- Studies indicated that sediment remain elevated between 10-Mile Lock & Landing Lane because of stormwater discharges
- Why is increased sediment a problem?
  - Requires additional water treatment by water purveyors - additional chemical cost, additional sludge disposal
- SFY2002 319(h): Delaware and Raritan Canal Tributary Assessment and Nonpoint Source Pollution Management Project
- Focus: final 11 miles of Canal, Amwell Road to Landing Lane
- SFY2006/2007 and 2018 watershed restoration grant funding: Implementation

## D&R Canal Restoration Plan

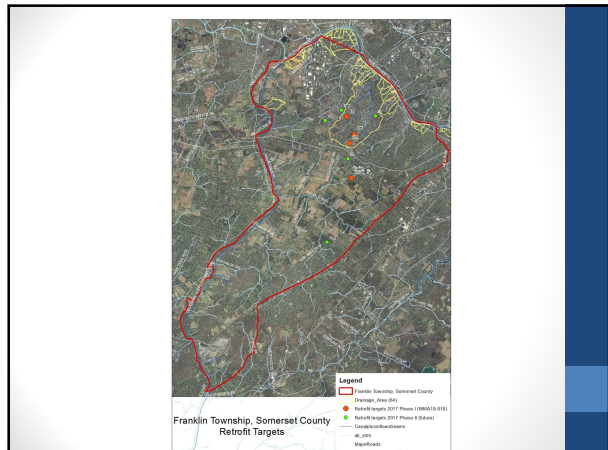


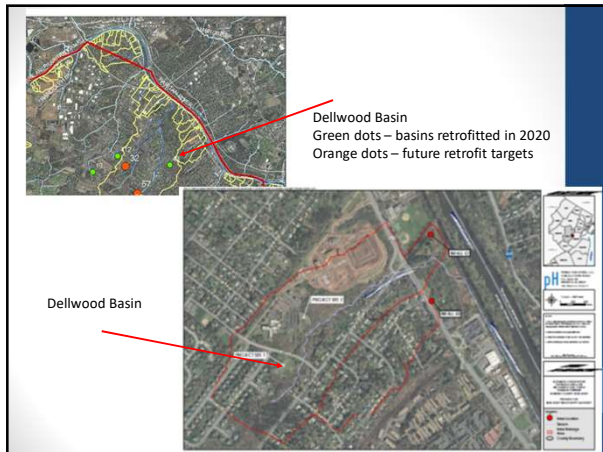
- ✓ Identified 72 infalls
- ✓ Only includes infalls that discharge to the Canal, many others go under Canal and discharge to Millstone River
- ✓ Delineated area draining to each infall, estimated sediment load, prioritized projects
- ✓ 15 infalls contribute 75% of sediment to Canal in project area
- ✓ Watershed restoration plan approved 2006



## Implementation So Far

- Landing Lane monitoring station
- Rain barrel workshops with Franklin Twp. and South Bound Brook Boro
- Schematic designs and conceptual recommendations for Infalls 5, 28, 60/62
- Installed 5 Filterra units and Suntree baffle box in South Bound Brook
- Completed basin retrofit at Rutgers Prep
- Completed basin retrofit in 2020 at Renoir Way, Laird Terrace, Municipal Complex and Gauguin Way
- Construction documents completed for Dellwood Lane Basin; construction beginning Spring 2021
- Developed schematic designs and conceptual recommendations for 4 additional basins in Franklin Township



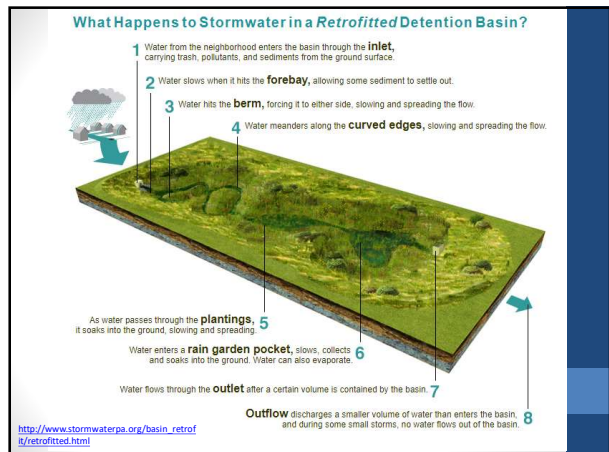
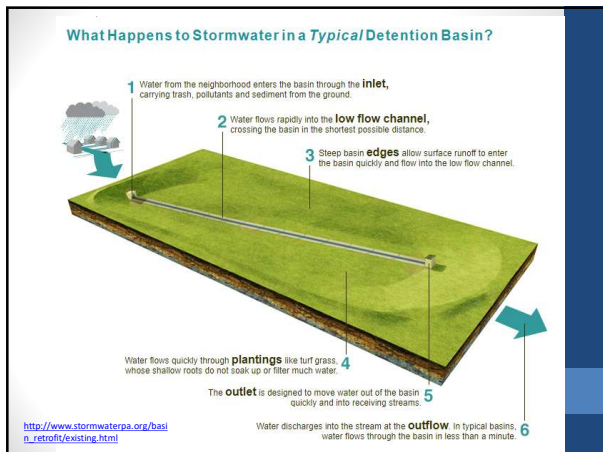


### Problems with traditional stormwater basins

- Minimal water quality benefit – runoff flows through without treatment
- Sediment accumulation
- Clogged low-flow channels and outlet structures
- Standing water or wet soils
- Encourages nuisance species such as geese
- High maintenance costs

### Why retrofit stormwater basins?

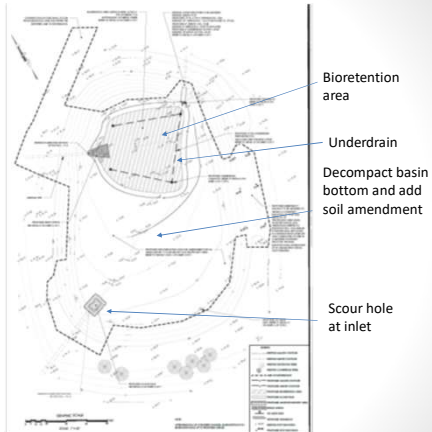
- Improve water quality
- Reduce maintenance costs
- Improve beneficial wildlife habitat



### Next project: Dellwood Lane Basin



### Dellwood Lane Basin



- Bioretention area
- Underdrain
- Decompact basin bottom and add soil amendment
- Scour hole at inlet

### Laird Terrace



## Municipal Complex



## Readington Middle School



## Maintenance

- Franklin Township responsibility
- Frequent inspections
- Mowing once per year
- Removal of sediment and trash as needed

## River Friendly Programs Partnerships to improve water quality

- Golf Course
- Business
- Farm
- Resident
- Schools

Better management of existing land uses:

- Water Quality Management
- Water Conservation Techniques
- Wildlife and Habitat Enhancement
- Education & Outreach





New Jersey Water Supply Authority

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DCRS