

# GRRIP I Watershed Analysis for Marion, MA.

Estimates of Land Use, Impervious Surface and Annual Nonpoint Source Pollution Loads

## Watershed 2

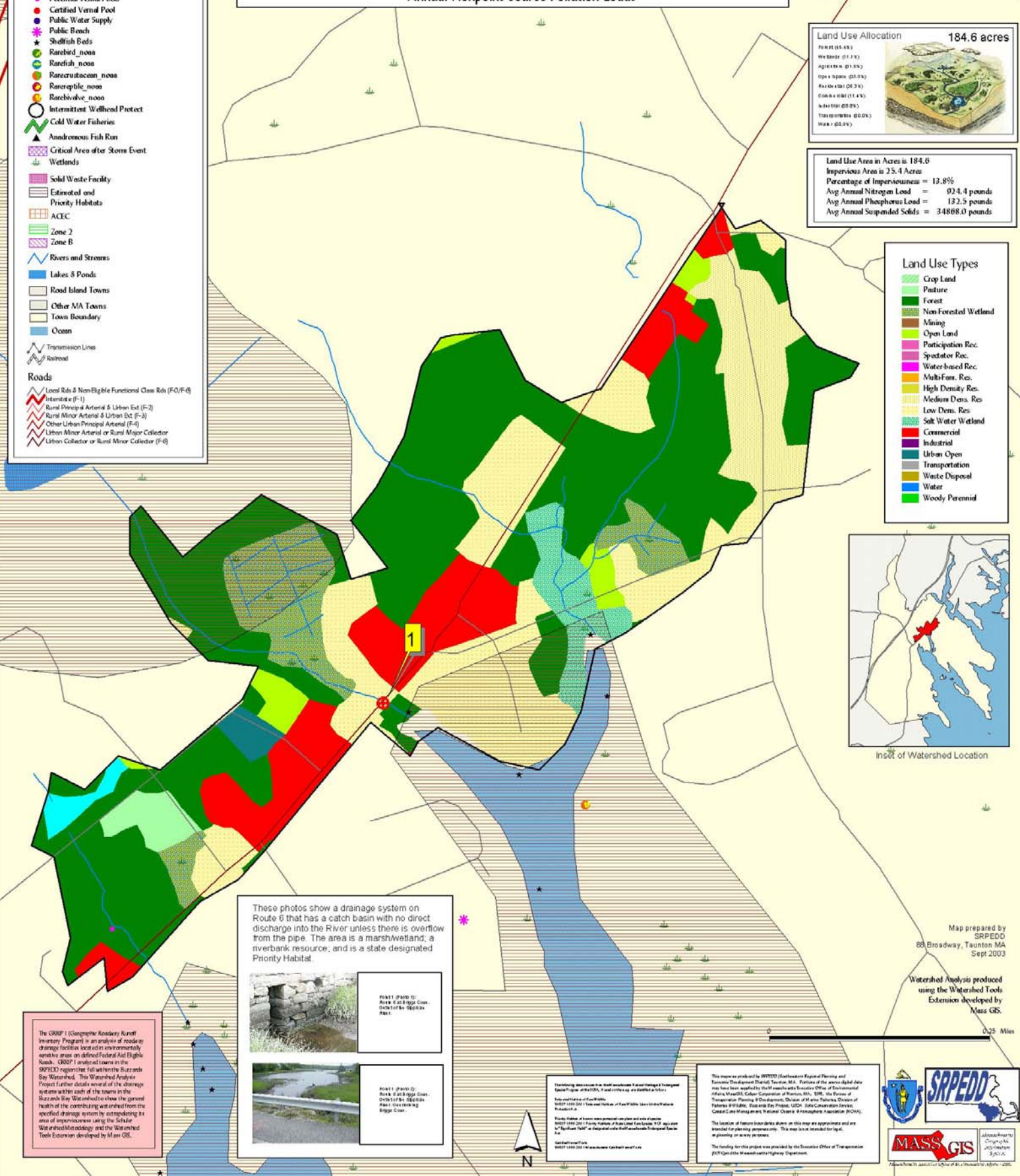
- Drainage System
- Potential Vernal Pools
- Certified Vernal Pool
- Public Water Supply
- Public Beach
- Shellfish Beds
- Rarebird\_noon
- Rarefish\_noon
- Rareinvertebrate\_noon
- Rareplant\_noon
- Rarewildlife\_noon
- Intermittent Wetland Protect
- Cold Water Fisheries
- Anadromous Fish Run
- Critical Area after Storm Event
- Wetlands
- Solid Waste Facility
- Estimated and Priority Habitats
- ACEC
- Zone 2
- Zone B
- Rivers and Streams
- Lakes & Ponds
- Road Island Towns
- Other MA Towns
- Town Boundary
- Ocean
- Transmission Lines
- Railroad
- Roads**
  - Local Rds & Non-Eligible Functional Class Rds (F-0/F-6)
  - Interstate (I-1)
  - Rural Principal Arterial & Urban Ext (F-2)
  - Rural Minor Arterial & Urban Ext (F-3)
  - Other Urban Principal Arterial (F-4)
  - Urban Minor Arterial or Rural Major Collector
  - Urban Collector or Rural Minor Collector (F-6)

**Land Use Allocation** 184.6 acres

Forest (51.1%)
Wetlands (11.1%)
Agriculture (21.6%)
Open Space (10.3%)
Roads (10.2%)
Other (11.4%)
Water (10.2%)
Transmission (10.2%)
Water (10.2%)

Land Use Area is 184.6 Acres  
 Impervious Area is 25.4 Acres  
 Percentage of Imperviousness = 13.8%  
 Avg Annual Nitrogen Load = 924.4 pounds  
 Avg Annual Phosphorus Load = 132.5 pounds  
 Avg Annual Suspended Solids = 34868.0 pounds

- Land Use Types**
- Crop Land
  - Pasture
  - Forest
  - Non-Forest Wetland
  - Mining
  - Open Land
  - Participation Rec.
  - Spectator Rec.
  - Water-based Rec.
  - Multi-Fam. Res.
  - High Density Res.
  - Medium Density Res.
  - Low Density Res.
  - Salt Water Wetland
  - Commercial
  - Industrial
  - Urban Open
  - Transportation
  - Waste Disposal
  - Water
  - Woody Perennial



These photos show a drainage system on Route 6 that has a catch basin with no direct discharge into the River unless there is overflow from the pipe. The area is a marsh/wetland, a riverbank resource, and is a state designated Priority Habitat.



The GRRIP I (Geographic Roadway Runoff Inventory Program) is an analysis of roadway drainage facilities located in environmentally sensitive areas as defined Federal Aid Eligible Roads. GRRIP I analysis is done in the SRPEDD region for all watersheds in the Buzzards Bay Watershed. This Watershed Analysis Project further details several of the drainage systems within each of the towns in the Buzzards Bay Watershed to show the general health of the contributing watershed from the specified drainage system by extrapolating a series of imperviousness using the Scholar Watershed Methodology and the Watershed Tools Extension developed by Mass GIS.

This mapping was done by the Massachusetts Department of Transportation (MassDOT) in cooperation with the Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Department of Agriculture (MassAg) and the Massachusetts Department of Transportation (MassDOT). The project was funded by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Department of Environmental Protection (MassDEP). The project was completed in 2003.

This map was prepared by SRPEDD (Statewide Regional Planning and Economic Development) in Taunton, MA. Portions of the map data have been modified by SRPEDD in cooperation with the Office of Environmental Affairs, MassDOT, Cape Cod Commission of Marion, MA, and the Bureau of Transportation Planning & Development, Division of Transportation Services, Cape Cod Commission, and the Massachusetts Department of Transportation (MassDOT). The location of features shown on this map are approximate and are intended for planning purposes only. This map is not intended for legal, engineering, or survey purposes.

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Map prepared by  
 SRPEDD  
 88 Broadway, Taunton MA  
 Sept 2003

Watershed Analysis produced  
 using the Watershed Tools  
 Extension developed by  
 Mass GIS.

