

Recommendations for the Worcester County Area of Special State Concern (septic system) Plan
C. Cain (2005)

Septics inspection:

Identify existing septic systems during Watershed Restoration Action Strategies.
Tie inspection and maintenance to deed transfers/real estate transactions.

Education

Send reminders to pump with tax bills
Provide homeowners with maintenance folders and pamphlets at settlement.
Continue to stress the importance of proper maintenance in Real Estate continuing education course, Home Owners Guide to the Coastal Bays,
Education can be a requirement of certified NR-OSDS vendors and maintenance providers (they do have an economic incentive and this keeps this sector in the private domain)

Recommendations:

Require all new waterfront homes and existing waterfront homes with failing systems to install NR-OSDS if they are not tied to existing community treatment plants.
Encourage NR-OSDS retrofits to existing and failing systems outside the Critical Buffer.
Incorporate into the County Master Water & Sewer Plan and Groundwater Protection Report with MDE's approval.
Level the reduction burden across the county citizenry. Agriculture, WWTP's, and industry must meet stringent discharge limits.
TMDLs will require Wo. Co. to implement a non-point N reduction programs.
Continue the Sep-Track database
County owned and operated septage receiving facility, preferably at the Newark landfill. Currently only Berlin and Snow Hill WWTPs accept septage
This would allow Wo. Co. to quantify the amount of non-point nitrogen removed from the watershed, solids could be used in landfill cover (permissible?).
Septage haulers need to keep a manifest of properties they service.
Draft regulations to prevent 'foreign' septage from entering the watershed – unless it is so lucrative as to provide a large portion of the operating costs of the receiving facility, and only then until the capitol costs have been covered. A better revenue source would be user-fees and state/federal grants.

ASSC facts:

3,520 OSDS's in the Area of Special Concern	
Properly functioning OSDS's deliver	9 lbs N/person/year
NR-OSDS deliver	4.5 lbs N/person/year
BNR-WWTP's deliver	2.0 lbs N/person/year

~2.5 people/household

Current loading estimate:

$(3,520 \text{ OSDSs})(9 \text{ lbs/person})(2.5 \text{ people/household}) = 12,672 \text{ lbs N/year}$

projected annual septage volume:

2003 2.34 million gallons/year

2023 6.28 million gallons/year

plan as written seeks to produce a 60% source reduction, with 16 mg/l N effluent
raw sewage contains approximated 40 mg/l

\$94 Million/20 years = \$4.7M/year \$/lb Nitrogen reduction???

Wo. Co. Inspection costs = \$3.9M/ 20 years includes personnel costs

(2 inspectors, 1 coordinator) septage operator?

Private sector inspection/pumping costs = \$36.9 M (\$425/OSDS/year)

Private sector capitol costs = \$56.8 M

Timeline:

Inventory & inspection of all existing OSDSs 2 years 7/03 –6/05

Failing systems replacement by 6/05, or 6 months after inspection, whichever is later

Poorly maintained OSDS's are to be repaired in 3 months from the date of inspection

Wo.Co. to study enforcement options during the initial 2.5 yr implementation phase

Tracking permit, issued after the initial inspection by Wo. Co., is valid for 3 years.

Pumping is required at the end of 3 years, Wo.Co. reinspects at the time of pumping.

Maintenance Contractors will submit to a 5-year operating permit, during which annual inspection, annual pumping, and an annual water sample is collected.

The Area of Special Concern (entire Coastal Bays Watershed) is almost entirely classified as "management area A" where the overall density of development is limited to one dwelling unit per 2 acres.

System owner is responsible for the tracking permit and maintenance schedule. It is hard enough to get people to pump regularly on a voluntary basis. This may present enforcement problems.

What MCBP can do:

Continue public education about septic maintenance requirements as well as about how the systems work better with NR-OSDS and why these retrofits/advances are necessary.

Press for state and federal grants

Support County regulations necessary to implement portions of the ASC plan

What MCBP doesn't want:

To exacerbate sprawl development, especially in rural conservation areas.

Areas which we previously un-buildable to become developed due to new technology

Gaps that need to be addressed:

Groundwater protection report (page 3)

Repairs to existing OSDSs on existing lots allow for direct penetration to ground water. Some new OSDSs on platted lots are permitted direct penetration to groundwater. New OSDSs on platted lots are allowed on small lots that existed prior to 1985 and are also allowed on hydric soils and/or in regulated wetlands on older lots.

There is a lack of a quality control/inspection program for precast concrete chamber and tanks. Minimum specifications for concrete testing, dimension verification, and penetration placement verification are not stipulated.

Volunteer monitoring results for Trappe Creek, Berlin: How do these results correlate with the Tyson Plant?

