

CIB Nutrient and Water Management Workshop (30 August 2011, Lewes)

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Report to STAC

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Attendees

- Center for the Inland Bays
- Delaware Geological Survey
- Department of Agriculture
- DNREC
 - Groundwater Discharges Section
 - Groundwater Protection Section
 - Watershed Assessment Section
- New Castle County
- Artesian Water
- Tidewater Environmental Services
- University of Delaware
 - Cooperative Extension Service
 - Marine Advisory Service
 - School of Marine Science and Policy

The Initial Big Questions

- How can the State of Delaware best use its water and nutrient resources (and maintain/improve its environmental quality)?
 - What needs to happen (institution, regulation, technical advances) to get the State on this path?
 - What do we (the Center for the Inland Bays) need to do to encourage this transition?
- How can the environmental goals of the State be achieved when large wastewater treatment facilities cannot consistently meet performance standards at all times of the year?

Some Interesting New Questions (1)

1. What new data is needed to evaluate the feasibility of alternative nutrient and water management strategies?
2. Is artificial storage and recovery of wastewater a solution to the “storage problem?”
3. Are Rapid Infiltration Basins (RIBs) always a better disposal option than direct discharge to surface waters?
4. Can wastewater processing be adjusted through the year to produce a more useful product for agricultural use?
5. Would separate gray-water collection and processing help control wastewater management costs?
6. Are biosolids from wastewater treatment facilities and septic systems a useful source of nutrients for agriculture

Some Interesting New Questions (2)

7. Are there better crops for wastewater spray irrigation (better cultivars designed for this purpose)?
8. What agricultural practices do the best job of minimizing “nutrient leakage” to the environment?
9. Could the establishment of spray irrigation districts (groups of nearby farms that accept wastewater for irrigation/fertigation) encourage reuse and recycling of nutrients from wastewater?
10. How can natural bioremediation in groundwater be quantified to determine the fate of wastewater and agricultural nutrients between recharge at the source and discharge to the surficial environment?
11. What monitoring is needed to determine the ultimate impact on the environment of present domestic, agricultural and wastewater management practices?

Future Workshops In Planning Stage

- Focused on some of the new questions
- Additional participants from
 - Agricultural Community
 - Farmers
 - Department of Agriculture
 - University of Delaware
 - College of Agriculture and Natural Resources
 - Coperative Extension Service
 - Municipalities
 - Sussex County
 - Environmentalists

Summary Documents

- Summary documents already available to participants (UD Server).
- Some documents will be available on CIB website.