

## Report Highlights

### Chesapeake Bay Tributary Strategy Compliance Cost Study

Senate Resolution 224 called for the LB&FC to study the economic impact on municipal wastewater dischargers to comply with the nutrient removal requirements of the Chesapeake Bay Tributary Strategy. The study included assessing alternates to capital improvements such as nutrient trading. The LB&FC contracted with Metcalf and Eddy, Inc. to conduct this study.

#### Estimated Cost of CBTS Compliance

Metcalf & Eddy surveyed 183 dischargers identified as significant by the Department of Environmental Protection (DEP) to ascertain compliance approaches being considered and implemented, and their cost.

- The capital cost estimate for nutrient removal for these dischargers is \$1.40 billion ± \$0.14 billion at the 95% confidence interval. Costs were indexed to 2009. Three percent of the upgrades have been completed. Therefore, 97%, or \$1.36 billion, represents the future capital funding requirement.
- The total estimated increase in annual operations and maintenance (O&M) cost for nutrient removal is \$61 million per year.
- If all costs were to come from user fees, the estimated average annual impact on user cost (sewer rates) would be \$68 per household per year. Of this, \$40 would be capital related and \$28 O&M related.

#### Nutrient Trading Program Evaluation

- As of September 2008 this program has had limited impact – only six trades have been recorded since program inception. Uncertainty surrounding the future availability of credits and their price, and future regulatory and policy changes, in particular the impact of total maximum daily load (TMDL) limits, has had a chilling effect on participation by the long-term focused, regulated, and risk-adverse municipal wastewater community.
- Cost of compliance estimates indicate that a majority of municipal wastewater facilities would have a financial incentive at current pricing to purchase nutrient credits rather than incur the cost for nutrient removal, and sufficient agricultural-based credits are available (primarily from manure relocation or treatment). However, when uncertainty and the risks de-

scribed above are factored in, trading is rarely viewed as attractive.

- Underscoring the importance of creating more certainty, there was considerable appeal among the municipal wastewater community for creating a government-supported clearinghouse for setting the long-term prices of nutrient credits and guaranteeing their availability.
- Without modification, it appears unlikely that the PA Nutrient Trading Program will play a significant role, other than as a short-term option for a limited number of traders.
- Changes to the nutrient trading program will need to focus on:
  - Assuring long-term availability and firm pricing of credits
  - Encouraging participation by smaller Phase II and Phase III Dischargers, which generally have a greater incentive to utilize credits and more time to act.
  - Enhanced education and outreach

#### Sources of Funding Committed by States

- Cumulatively, Maryland and Virginia have committed over \$1.6 billion to help their municipal wastewater treatment plants meet Chesapeake Bay initiatives. Unlike PA, MD and VA have funding programs specifically for this purpose.
- For FY09, new funding was approved that offers \$800 million in grants for water-related projects in PA, and an additional \$400 million for grants and loans. The \$800 million program includes funding for dam upgrades and flood control, drinking water systems and non-nutrient removal infrastructure, as well as sewer projects. Funding for the purchase of nutrient credit is expressly prohibited. With respect to the \$400 million, recently approved by the voters, funding will be more focused, being limited to water and sewer projects, and allows the use of funds for nutrient credit purchases.