

## Jeff Wennberg Notes on Clean Water Act Report Cost of Compliance:

- The cost of total compliance over 20 years is presented as \$2.3 billion. This includes investments in reducing pollution from municipal wastewater, CSOs, stormwater from public and private development, agriculture and natural sources.
  - **Tier 1 capital stormwater and wastewater treatment controls** (those required by the new TMDL, CSO rule and Act 64) are estimated at \$538 million over 20 years.
    - The 20-year CSO cost of compliance is \$115.8 million, based upon an FED estimate.
      - *COMMENT: The FED estimate is based upon what it cost to eliminate 103 outfalls between 1990 and 2015. FED then applied the average of those costs and multiplied by 66, the number of remaining outfalls. FED did no investigation of the actual cost to eliminate the remaining outfalls and did not take into consideration whether the first 103 represented the least expensive projects or whether the remaining outfalls could be more expensive. FED cautioned that their estimate could be substantially understated as a result of their assumptions.*
      - *COMMENT: For example, under current rules the only way to comply with VWQS and the CSO rule is to separate all storm and sanitary sewers. Absent a change that allows CSOs to occur under limited circumstances, the City of Rutland will have to separate all combined sewers. The cost to separate Rutland's combined sewers is between \$125 and \$150 million, which will eliminate 4 out of 66 remaining outfalls.*
  - **Tier 2 capital wastewater treatment controls** (those required to maintain proper operation of WWTPs and collection systems) are estimated at \$530 million over 20 years. This is based upon the 2008 EPA Clean Watershed Facility Needs Survey and adjusted to 2015 dollars. Documented needs in the CWNS include the unfunded capital costs of projects as of January 1, 2008 that address a water quality or a water quality-related public health problem existing as of January 1, 2008, or expected to occur through 2028.
    - *COMMENT: Apparently the Treasurer extended this projection to 2037, although there is no explanation as to how this was done. Also, there exists a 2012 CWNS which for some reason was not used in preparing these estimates. There are 94 WWTF's in Vermont, 59 in the Lake Champlain Basin, but the 2008 CWNS survey includes only 34 responses state wide. The survey failed to include 60 Vermont WWTPs and the Treasurer made no adjustment in the projection for the under sample. CWNS estimates are typically "back of the envelope" calculations by WWTP operators with no supporting engineering analysis.*
- **Currently available funding** is presented as \$1.1 billion. Funding sources for municipal obligations include CWSRF loans and grants, WPC state grants, better back roads funding, VTrans, Federal Highway Administration, CWIP, the Clean Water Fund, and USDA RD loans and grants. In Appendix A, which presents some spreadsheets detailing cost projections and funding sources, under the table titled "Sector #1: Clean Water Infrastructure Municipal Wastewater, Combined Sewer and Other Categories," there is the following footnote: "If no other source of state or federal funds are available to meet the funding gap, it is expected that Municipal Bonds would fill the gap."

- COMMENT: *Loans are treated as funding sources. The source of funding to repay loans is not identified or analyzed.*
- The Treasurer recommends the state should generate **new revenues to subsidize 50% of Tier 1 funding gap**. The report states the Tier 1 cost is \$1.6 billion including \$338 million for wastewater and CSOs and \$695 million for stormwater (includes both municipal and private land). Funding “sources” for wastewater and CSOs include \$182 million in loans and \$33 million in grants, leaving a gap of \$123 million. Funding “sources” for stormwater include \$215 million (mostly grants), leaving a gap of \$479 million. The total Tier 1 funding gap for all sectors is given as \$971 million, or about \$49 million per year.
  - 50% funding for the Tier 1 gap is therefore \$25 million per year, and the report proceeds to present various ways to generate these new funds.
- The Treasurer recommends **no new support for those costs municipalities will need to incur** to update facilities and meet current regulatory requirements (Tier 2). The current Tier 2 total cost is \$669 million, including \$530 million for municipal wastewater and \$32 million for stormwater. Funding sources to support municipal costs include \$268 million (loans) + \$116 million (grants) = \$384 million, leaving a gap of \$178 million for municipalities to fund.
- The Report acknowledges that 100% of the **operations and maintenance cost** of these projects and facilities will become the responsibility of municipal rate, tax or fee payers.
  - COMMENT: *According to EPA, capital spending for wet weather and wastewater related infrastructure has grown at the rate of 1.5% per year between 1955 and 2015. During the same period, O&M spending in support of that infrastructure has increased at the rate of 4.7% per year. In 2015, capital expenditures totaled \$50 billion and O&M expenditures hit \$90 billion. If annual O&M costs for the new infrastructure run at the same rate, Vermont utility ratepayers will shoulder an additional \$800 million. If the long term trend of high O&M cost growth continues this number could increase significantly over time.*
  - COMMENT: *Page 63 contains the following acknowledgement, “While the recommendation to the CWSRF funds in the previous chapter on bonding will add loan capacity . . . these are largely financing sources that ultimately will need to be repaid by municipal borrowers and other entities.” Nowhere in the report is an analysis of the impact of all the revenue recommendations on those ultimately responsible to pay them.*
  - COMMENT: *Therefore utility ratepayers and other parcel fee payers would be billed \$2.1 billion for this program. All billing would come from the municipality or municipal utility if the administration recommendation is adopted. About 286,000 Vermonters are served by centralized WWTFs, or about 122,222 households. Spread evenly over 20 years, the new annual charges per household would be \$857 per year, all of which will be billed by and collected by the municipality.*
- COMMENT: *The following is an analysis of the impact of unfunded Tier 1 capital costs, loan-financed Tier 1 and Tier 2 capital costs, and O&M costs associated with the new capital infrastructure. These are the additional costs that will be imposed by municipalities on Vermont ratepayers if the Treasurer’s plan to fund 50% of the*

- report's projected "gap" through a new revenue source is enacted. With the exception of the O&M estimate (which was not considered by the Treasurer), all costs are the Treasurer's without adjustment or modification.

Category	Estimated cost	Loan Financing	Grant Financing	Gap	Parcel Fee	Municipal Bonds	Private Property	Net to Ratepayer
Tier 1 Wastewater and CSO	\$ 338	\$ 182	\$ 33	\$ 123	\$ 63	\$ 60		\$ 305
Tier 1 Stormwater*	\$ 695	\$ 216	\$ 14	\$ 465	\$ 247	\$ 33	\$ 186	\$ 495
Tier 2 Wastewater and CSO	\$ 530	\$ 320	\$ 58	\$ 152		\$ 152		\$ 472
Tier 2 Stormwater*	\$ 33	\$ -	\$ 6	\$ 27		\$ 27		\$ 27
<b>Total</b>	<b>\$ 1,596</b>	<b>\$ 718</b>	<b>\$ 111</b>	<b>\$ 767</b>	<b>\$ 310</b>	<b>\$ 271</b>	<b>\$ 186</b>	<b>\$ 1,299</b>

All figures in millions unless noted otherwise

\*Includes private lands

Sector	Gap	Ratio
Tier 1 Wastewater and CSO	\$ 123	13%
Tier 1 Stormwater*	\$ 479	49%
Tier 1 Agriculture	\$ 318	33%
Tier 1 Natural Resources	\$ 51	5%

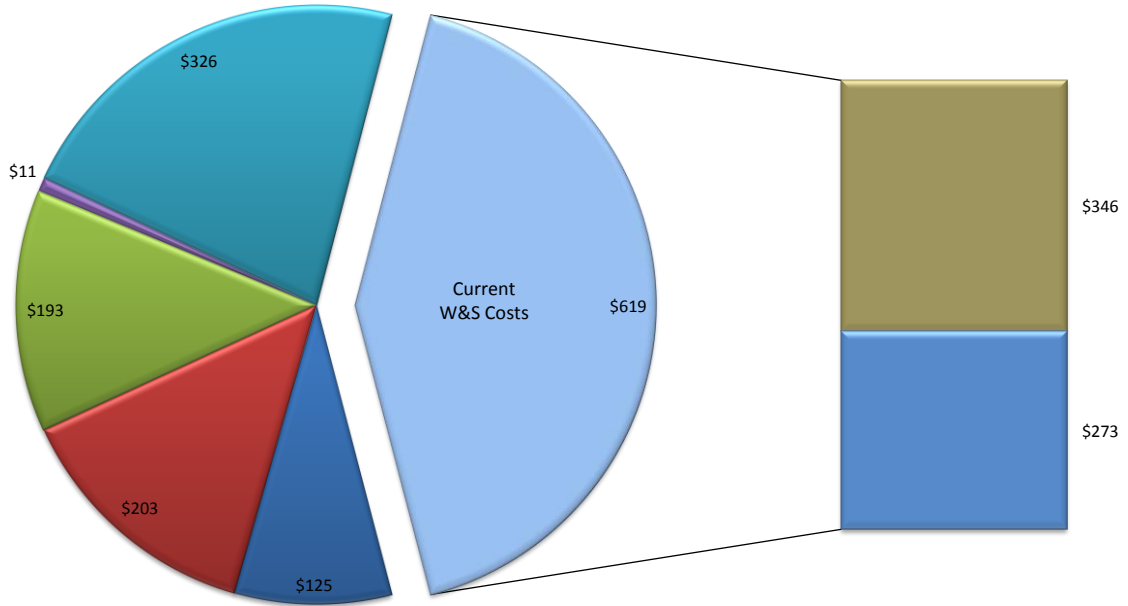
**Total** \$ 971

**20 year O&M** \$ 796

**Total cost to Ratepayer** \$ 2,095

**cost per HH per year in dollars** \$ 857

**Water/Sewer Utility Rate Impact of CWA Report Recommendations  
Annual Utility Cost for VT Median Ratepayer**



- Tier 1 Wastewater and CSO
 ■ Tier 1 Stormwater\*
 ■ Tier 2 Wastewater and CSO
 ■ Tier 2 Stormwater\*
- 20 year O&M Tier 1 Only
 ■ Wastewater (current)
 ■ Drinking Water (current)