

Legislative Budget and Finance Committee

**A Review of the Feasibility of Establishing a
Water Use Fee in Pennsylvania**

Report Presentation by Christopher Latta,
Deputy Executive Director, at June 6, 2018, Meeting

Good morning. This review of the Feasibility of Establishing a Water Use Fee in Pennsylvania has been conducted by the Legislative Budget and Finance Committee staff pursuant to a request by the Officers of the Committee.

Pennsylvania is rich in water resources. The Commonwealth has 2.5 trillion gallons of surface water and 80 trillion gallons of ground water. Several state agencies have responsibilities related to protecting our water resources, including: the Department of Environmental Protection (DEP), the Fish and Boat Commission, the Department of Conservation and Natural Resources, and the Department of Agriculture. Major water sources in Pennsylvania include the Susquehanna, Delaware, Ohio, and Potomac River basins.

We were directed to analyze legislation that would impose a water use fee; study whether a minimum threshold should apply; examine various exemptions; and determine fee assessments necessary to generate \$500 million, \$300 million, and \$100 million in revenues. To meet our objectives, we contacted Pennsylvania state agencies, and other advisory or regulatory organizations, having responsibilities for water programming, as well as stakeholders with an interest in a water use fee. We focused on the establishment of a fee for both the consumptive use and the

use-and-return of water. To determine the possible revenues from a fee, we calculated the amount of water withdrawn and subsequently returned, and the water withdrawn and consumed using data provided by the DEP. To determine the consumptive use specific to a water use sector, we multiplied the water used by Consumptive Use Coefficients used by DEP and the United States Geological Survey. We then multiplied the water used and the water returned by the appropriate fee level and added the two products. The result is the total fees that would be collected.

Our findings are as follows:

1. In 2015, the most recent year for which complete data were available at the time of our study, Pennsylvania used 25.8 trillion gallons of water across 11 sectors. Two of those sectors, hydroelectric power and thermoelectric power accounted for 98.4 percent of total water use. Hydroelectric power, alone, accounted for 92 percent of total water use.

Excluding hydroelectric power, the three largest sectors were thermoelectric power, public water supplies, and industrial use.

2. Nearly 71 billion gallons of water per day were used in 2015. Surface water withdrawals accounted for a little over 70 billion gallons per day, or 99.5 percent of the total. Groundwater withdrawals were 345 million gallons per day.

3. Lancaster County used 38 million gallons per day, more than all other counties combined because of hydroelectric dams located there. Excluding hydroelectric dams, York County used the most water because of the location of thermoelectric power plants.

4. House Bill 20, introduced by Representative Sturla, would yield approximately \$2.6 billion in fee revenue for water related programs and general government operations. The bill establishes a water resource fee on water withdrawals greater than 10,000 gallons per day. Agriculture, municipal purposes, community water systems, non-community water systems, and not-for-profit entities are exempted. The bill applies a \$0.0001 fee on water withdrawn and returned and a \$0.001 fee on water that is consumed.

The revenue number is based on 25.4 trillion gallons of water used in calendar year 2015. Of that, 25.3 trillion gallons of water were withdrawn and returned while 128 billion were consumed.

The hydroelectric sector would pay over \$2.3 billion, or 90 percent of the fee. The power generating sectors (hydroelectric and thermoelectric) would pay 98 percent of the fees proposed in House Bill 20.

Breaking the numbers down, the Thermoelectric Sector would pay \$205 million; Industrial - \$44 million; Mining - \$3 million; Oil & Gas - \$2.6 million; Irrigation - \$1.8 million; Commercial & Institutional \$400 thousand; and Wastewater - \$6 thousand.

Within the Industrial Sector, manufacturing facilities would pay the largest amount - \$43 million.

5. A water use fee of \$0.000018 per gallon of water withdrawn and returned and \$0.00018 per gallon of water withdrawn and consumed would generate \$500 million in fees if there were no exemptions. For our calculations we assumed a 10,000 gallon per day threshold and applied the same returned/consumed fee ratio used in House Bill 20.

The Hydroelectric Sector would pay \$434 million under this scenario – just under 87 percent. Combining the power generating sectors would yield just over 94 percent of the total needed to reach \$500 million in fees.

The sector breakdown for this scenario can be found on page 58 of the report.

6. A water use fee of \$0.000010 per gallon of water withdrawn and returned and \$0.0001 per gallon of water withdrawn and consumed would generate \$300 million in fees if there were no exemptions.

As in every scenario, the Hydroelectric Sector would pay the largest amount - \$261 million.

7. A water use fee of \$0.0000036 per gallon of water withdrawn and returned and \$0.000036 per gallon of water withdrawn and consumed would generate \$100 million in fees if there were no exceptions.

8. The Susquehanna River Watershed would generate \$336 million in fees under a scenario designed to collect \$500 million in total fees. This represents 67 percent of all fees collected. Eighteen trillion gallons of water were withdrawn in

calendar year 2015 – representing 69 percent of all water withdrawals. The Ohio River Watershed would contribute the next largest amount - \$147 million. Combined, these two watersheds would pay 96 percent of all fees in each scenario.

9. Of the 11 states we reviewed, three other states impose an annual water use fee. Minnesota and Wisconsin impose a water use fee annually based on actual water use. New Jersey bases its fee on a maximum monthly requested allocation. However, no state imposes a fee that would generate anything remotely close to what is contemplated in House Bill 20, or the \$500, \$300, or \$100 million scenarios discussed earlier.

Minnesota generates approximately \$4.7 million per year; New Jersey generates about \$5.1 million; and Wisconsin generates \$1 million.

10. Seven states have permitting requirements. Of those, Connecticut, Delaware, Florida, Ohio, and Virginia charge fees ranging from \$375 to \$25,000. Maryland, New York, and West Virginia charge nothing.

11. Most states have some exemptions to their annual fees or permitting requirements. Types of exemptions include grandfather clauses, individual domestic properties, firefighting purposes, and agricultural uses.

In conclusion, we gratefully acknowledge the cooperation and assistance provided by the Department of Environmental Protection. Additionally, I'd like to thank my team that worked on this study – Anne Witkonis, Rick Jones, and Amy Hockenberry.

I am happy to answer any questions you may have.