



Testimony of

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Good morning Chair Muth, Senator Williams, Senator Collett and other members of the committee. On behalf of the Department of Environmental Protection and Secretary Negrin, I would like to thank you for the opportunity to discuss the Department's roles in supporting resilient stormwater, wastewater, and drinking water infrastructure in communities across the Commonwealth.

Drinking water, wastewater, and stormwater infrastructure provide essential services to Pennsylvania communities – promoting public health and safety, and underpinning economic opportunities. While exact estimates vary, there are tens of billions of dollars needed to ensure

that the drinking water, wastewater, and stormwater infrastructure serving Pennsylvanians protect public health and safety, especially when facing challenges from more extreme precipitation patterns caused by climate change and from emerging contaminants like per- and polyfluoroalkyl substances (PFAS).

For example, a September 2023 EPA report to Congress on the 7th Drinking Water Infrastructure Needs Survey and Assessment estimated Pennsylvania's drinking water infrastructure needs over the next 20 years at \$24.3 billion. This includes \$15.8 billion for pipe replacement, \$4.7 billion for treatment plant upgrades, \$2.2 billion for storage tanks, \$691 million for sources of supply and \$859 million for other key assets to ensure the public health, security and economic well-being of our communities.

Today, I'd like to talk with you about some of the ways DEP is helping Pennsylvania communities address these water infrastructure challenges, highlighting what DEP is doing through its programs and partnerships to make the most of available resources, and highlighting opportunities where the legislature could further advance those efforts.

State Revolving Funds & Infrastructure Investment and Jobs Act Among the primary sources of funding for stormwater, wastewater, and drinking water infrastructure in Pennsylvania are the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF).

The CWSRF provides affordable financing for wastewater and certain other projects throughout Pennsylvania for the construction, improvement, extension, expansion, repair or rehabilitation of wastewater collection, treatment or disposal facilities, storm water management, nonpoint source pollution controls including but not limited to agricultural best management practices and watershed and estuary management.

The DWSRF provides a resource for financing various public drinking water systems (including systems owned by for-profit entities and not-for-profit entities) for expenditures for projects that facilitate compliance with national and state drinking water regulations or otherwise advance the health-protection objectives of the federal Safe Drinking Water Act. The CWSRF and the

DWSRF are both administered jointly by PENNVEST and DEP, where PENNVEST manages the financial aspects of the fund and DEP reviews the technical aspects of projects seeking funding. The CWSRF and DWSRF are both funded by federal capitalization grants from the United States Environmental Protection Agency (EPA) and State matching funds. These programs offer low-interest loans with flexible terms and principal forgiveness funds where applicable and available.

The federal Infrastructure Investment and Jobs Act (IIJA) provides \$50 billion to EPA to strengthen drinking water and wastewater systems. The infusion of federal dollars through IIJA is unprecedented in at least the last several decades and will lead to much needed federal dollars flowing to many communities across the Commonwealth and nation. These investments will enable our communities to not only address aging infrastructure but to create economic opportunities by providing essential services that can attract business to those communities. Among EPA's and DEP's shared priorities for these IIJA monies are: to increase investment in underserved communities, to focus on resilient adaptation to climate change, to make rapid progress on replacing lead service lines for drinking water, to address "forever chemicals" (PFAS) and other emerging contaminants, and to bolster technical assistance so that more communities can apply for and receive SRF funding. For FY2024-25, IIJA funds for Pennsylvania's DWSRF – including for lead service line replacement and emerging contaminants projects – total nearly \$250 million, which are in addition to Pennsylvania's base DWSRF appropriation of \$16 million. For FY2024-25, IIJA funds for Pennsylvania's CWSRF – including for wastewater infrastructure improvement, stormwater, nonpoint source, and emerging contaminants projects – total \$90 million, which is in addition to Pennsylvania's base CWSRF appropriation of \$29 million. Set-aside funds or allowances are available from each EPA grant to perform technical outreach and assistance.

The goal of the technical assistance under IIJA is to enhance or build programs that proactively identify, reach out to, and provide assistance to rural, small, and tribal wastewater and drinking water systems, particularly in disadvantaged and environmental justice communities. The intention is to assist these communities with getting projects identified, through the process to plan, implement, and to the table for funding. Technical assistance may include problem

identification, preliminary engineering, application development assistance, and other types of general project assistance. DEP and PENNVEST worked together on a solicitation to hire a technical assistance contractor. DEP, PENNVEST, and the Contractor (Larson Design Group) have coordinated to offer assistance to drinking water and wastewater entities across the State. A number of entities have accepted the technical assistance offering and are engaged in those efforts, at no cost to them. DEP and PENNVEST hope to build on the momentum of the program and expand the scope to help more water and wastewater entities and to get projects into the funding pipeline and to PENNVEST for funding.

DEP has a long history of providing technical assistance to small and disadvantaged drinking water systems through various programs including onsite operator outreach training and technical assistance programs, filter plant and distribution system evaluation programs, and the Professional Engineering Services contract. In order to help as many small, disadvantaged and underserved communities as possible complete critical work necessary to obtain permits and apply for IIJA funding, DEP and the contractor have ramped up efforts for this technical assistance by ~ 700% for the upcoming fiscal year.

Additionally, DEP was selected as one of only four state agencies nationwide to collaborate with EPA in establishing a new technical assistance initiative called Lead Service Line Replacement (LSLR) Accelerators. The goal of this unique program is to provide targeted technical assistance services to help address the barriers small, disadvantaged and underserved communities face when replacing lead service lines (LSLs). This is also part of an overall initiative related to IIJA to help these communities overcome limited technical, operational, and financial resources that prevent or delay their ability to apply for IIJA funding. Forty-nine percent of LSLR funding must be provided to disadvantaged communities (as defined by the state) as grants or principal forgiveness loans. To ensure this project is helping disadvantaged communities, the agency selected ten small community drinking water systems statewide which have had a previous lead action level exceedance; the associated drinking water distribution systems serve a percentage of customers in state or federally identified Environmental Justice/Justice 40 areas.

Act 167 plans: Pennsylvania’s Storm Water Management Act (Act 167 of 1978) requires each county to prepare and adopt a watershed stormwater management plan (sometimes referred to as “Act 167 plans”) for each watershed in the county, and requires each municipality to adopt and implement ordinances necessary to regulate development consistent with the applicable watershed stormwater management plan. The Storm Water Management Act requires these plans to be reviewed and revised at least every five years. The act also authorizes DEP to administer grants to municipalities and counties to reimburse them for costs incurred in preparing the required watershed stormwater management plans. However, no funds have been appropriated to DEP for these grants since the Commonwealth’s 2008-2009 budget, aside from a one-time distribution of \$8.8 million in American Rescue Plan Act funds through the Clean Streams Fund established by Act 54 of 2022 as part of the Commonwealth’s FY2022-2023 budget. Using these ARPA funds, DEP opened a grant application round earlier this summer for counties to prepare scopes of study for Act 167 plans. The seven applications received by DEP are currently undergoing review, but there was very limited interest from counties in applying for these grants, mainly because counties were concerned about taking on Act 167 planning and plan implementation using one-time funds without certainty about longer-term funding to support their planning and plan implementation. The long-term drying up of this once-reliable grant funding is one of the main reasons that only a few counties have current, approved watershed stormwater management plans and more than 40 counties do not have watershed stormwater management plans that cover their entire areas. DEP will be opening a second round of grants using the ARPA funds distributed through the FY2022-23 budget, but many counties and municipalities are still wary of moving forward with developing or updating their Act 167 plans due to uncertainty surrounding long-term, dedicated funding. Restoring reliable funding to support counties and municipalities in developing and updating Act 167 watershed stormwater management plans was one of the recommendations in the State Planning Board of Pennsylvania’s 2021 Storm Preparedness, Flood Hazard Mitigation, and Community Resilience report, which noted, “[r]estored funding is needed to help communities come into compliance with Act 167 and reap the benefits of a strong stormwater management plan...”

Clean Water Procurement Program: DEP has also been consulting with PENNVEST and the State Conservation Commission to administer the Clean Water Procurement Program, which was

also established by Act 54 of 2022 as part of the Clean Water Fund. The Clean Water Procurement Program is a “pay for performance” mechanism through which PENNVEST can purchase verified nutrient and sediment reductions from agricultural non-point sources through a competitive bidding process that awards funds based on various criteria including the dollar cost per pound of reductions. The Clean Water Procurement Program will make important strides toward attaining Pennsylvania’s nutrient and sediment reduction goals statewide, including within Pennsylvania’s portion of the Chesapeake Bay watershed. PENNVEST’s application window for Clean Water Procurement Program bids closed on September 1, 2023 and the applications are currently undergoing administrative and technical review.

Environmental Stewardship Fund, Growing Greener, and Pennsylvania’s Chesapeake Bay Phase 3 Chesapeake Bay Watershed Implementation Plan: Growing Greener grant funds are authorized in Section 6105(b) of the Commonwealth’s Environmental Stewardship and Watershed Protection Act. The primary purpose of the program is to restore impaired waters and protect waterways from nonpoint source pollution within the Commonwealth. Nonpoint source pollution occurs when stormwater runoff carries pollutants like sediment and nutrients from agricultural, suburban, and urban landscapes into waterways. DEP has made organizational and programmatic changes to more efficiently administer the Growing Greener grants program and continues to invest the limited, available Growing Greener funds in nonpoint source pollution prevention projects across the Commonwealth to improve, restore, and protect Pennsylvania’s local waters and the Chesapeake Bay. As reported annually to meet the congressionally mandated Chesapeake Bay Accountability and Recovery Act (CBARA), DEP has invested more than \$61 million in Environmental Stewardship Fund and Growing Greener grants in the last three fiscal years within Pennsylvania’s portion of the Chesapeake Bay watershed. Overall, DEP has invested more than \$278 million in that same time period in activities to restore local waters in Pennsylvania’s portion of the Chesapeake Bay watershed. As documented in Pennsylvania’s Phase 3 Chesapeake Bay Watershed Implementation Plan, the estimated total needed resources for practice implementation and staffing resources is more than \$324 million annually. This is the annual gap of dedicated funding toward implementing projects that would minimize and reduce nutrient and sediment pollution conveyed by stormwater runoff to Pennsylvania’s local streams and rivers and ultimately the Chesapeake Bay.

Post-Construction Stormwater Management Manual: DEP is currently in the process of finalizing updates to the *Pennsylvania Post-Construction Stormwater Management Manual*, which will replace the current *Pennsylvania Stormwater Best Management Practices Manual*, which was published in 2006 and has not since been updated. This manual establishes standards for the management of stormwater through the design and implementation of stormwater control measures to comply with DEP's erosion and sedimentation control regulations. By calling for the use of greater rainfall depths in analyzing the type and extent of stormwater control measures needed for a given construction project, the updated manual accounts for the more intense rainstorms that are becoming more common due to climate change. The updated manual also improves the scientific approach to post-construction stormwater management by allowing for the use of a continuous record of precipitation data for a locality in stormwater management modeling. DEP's updates to this stormwater management manual will help ensure that stormwater control measures designed and installed in communities across Pennsylvania will be resilient to the more intense storms brought by climate change and will be properly operated and maintained so their functional life can be maximized and so Pennsylvania communities can benefit from the important pollution prevention and flood prevention services they provide for years and generations to come.

MS4s: In Pennsylvania, DEP administers the federal permitting program for discharges to waterways from municipal separate storm sewer systems (MS4s) – the infrastructure systems, including storm drains on roadways and associated underground pipes, that municipalities and other entities like PennDOT and the Turnpike Commission use to manage stormwater. With the goal of making the MS4 permitting program in Pennsylvania work better for the Pennsylvanians we serve, last winter, DEP convened a workgroup of municipal organizations, municipal MS4s, MS4 collaboratives, regional authorities, counties, nonprofit environmental organizations, consultants, academia, and EPA to discuss how DEP's MS4 general permit can be improved. Based on the feedback of that workgroup, DEP is planning to propose several changes to the general permit to support and promote the restoration of the Commonwealth's waterways more efficiently and effectively. One of these changes is a shift of the permit to focus on managing and reducing the volume of stormwater runoff, rather than focusing directly on reduction of

pollutant loads. Shifting to focus on the volume of stormwater runoff is intended to make the MS4 general permit's objectives more easily understandable to local officials and residents, especially as Pennsylvania continues to experience more intense precipitation events and flooding due to climate change. And shifting the permit to focus on stormwater volume will still result in reduced pollutant loads to Pennsylvania's streams and rivers since stormwater pollutant loads are strongly correlated with the volume of stormwater runoff. Based on the workgroup's feedback, the Department also anticipates proposing changes in the permit regarding how each MS4 community's stormwater management goals take into account the community's financial ability and physical opportunities to achieve reductions in stormwater runoff volume. Based on the workgroup's feedback, DEP also plans changes in the MS4 general permit to incentivize collaboration among MS4 permittees, which can lead to more cost-effective stormwater control projects when compared with each MS4 community independently pursuing projects only within their own borders.

Stream, Floodplain and Wetland Restoration: Pennsylvania's waterways, floodplains, and wetlands have been dramatically altered over the past several hundred years. Restoring these aquatic resources to more natural states can dramatically improve flooding and reduce pollution. The Department would like to facilitate more projects to comprehensively restore Pennsylvania's riverine systems in ways that closely approach or mimic their historical conditions and restore their hydrological, ecological, and other processes. Examples include legacy sediment removal projects, like the Big Spring Run project in Lancaster County, which removed tons of nutrient-laden sediments from the floodplain that had accumulated over centuries from historic milldams. Other examples of comprehensive aquatic resource restoration projects may include a combination of MS4 and/or post-construction stormwater management on nearby developed lands where there is ample space for a limited stream and floodplain restoration corridor, such as with the Brubaker Run project in Lancaster County's East Hempfield Township and the Dover Township project in York County. These projects help improve water quality and prevent flooding while also supporting sustainable development and recreational opportunities for local communities. These projects and others are showcased on the Department's Clean Water Academy website, and they are great examples where flood resiliency and resistivity to erosion can be restored to a watershed while also improving water quality processes and providing additional green spaces. These comprehensive restoration projects also restore naturally

functioning wetlands and vegetated floodplains which sequester carbon and help combat climate change. However, there are challenges to facilitating these projects, as they require a significant amount of technical expertise, planning, design, buy-in from multiple partners and funding sources, and are land-intensive. Often it is easier to do smaller, less expensive streambank repairs which may temporarily arrest streambank erosion but do little to improve flood resiliency or mitigate the effects of climate change.

The Department has an In-Lieu Fee (ILF) Program which, if fully supported, could allow more of these large-scale projects to be funded. The ILF functions similarly to private, entrepreneurial mitigation banking in that aquatic resource restoration projects generate credits which become available for purchase to offset impacts permitted under DEP's Chapter 105 regulations for water obstructions and encroachments. As credits are sold, the ILF fund recuperates its project costs with a surplus, enabling the program to fund more projects as the fund grows. The Department however is operating both the ILF Program and the Mitigation Banking Permitting Program with a single Water Program Specialist who also has other responsibilities, so it is operating these initiatives on less than one FTE. The Department falls well short in comparison to other states with healthy, fully operational ILF Programs that are staffed by several employees covering several professional, technical, and administrative job classifications. If fully staffed and funded, these programs could significantly impact Pennsylvania's water quality, flood resiliency, and climate change mitigation goals.

Flood Protection: The Department operates a successful flood protection program that relies on Capital Budget funding requests, along with state and federal grants obtained by flood-prone communities, to design projects, facilitate property acquisition through the Department of General Services (DGS), and to manage and oversee project construction, operation and maintenance. The program also manages existing state-owned levee projects and designs rehabilitation projects for existing flood protection infrastructure. With aging flood protection infrastructure, it is important to recognize the need to fund rehabilitation projects on effectively functioning levee systems to extend their lifespan and to decommission and restore streams and floodplains when levees are no longer effective or when stream and floodplain restoration offers a comparable or better solution. Also, additional Capital Budget funds are needed to support

more property buy-outs in flood-prone communities, including in areas where abandoned properties, structures, and condemned or dilapidated dwellings exist. More property acquisitions facilitated through DGS would allow the Department, or consulting contractors, to design flood control projects which include level setbacks. This widens the corridor available to design more climate-smart solutions, which offer greater flood resiliency and may provide environmental and recreational benefits to local communities. For example, with a levee setback, the design could incorporate a more natural, ecologically functioning channel, floodplain, and floodplain wetlands within the corridor. Levee setback designs would allow communities through land swap deals to replace flood-prone housing with recreational facilities, such as community parks, playgrounds, and trails, providing more greenspaces back to the community. While residential relocation is widely unpopular, flood-prone communities are also experiencing more frequent and intense flooding, which is only expected to increase with climate change. Many residents, particularly in environmental justice communities, are stuck and face depreciating property values, rising flood insurance costs, rising clean up and replacement costs for building materials, appliances, furniture, etc., and deal with the emotional stress of flooding disasters. Many of these residents cannot afford to move to higher ground because their property values are drastically below those in nearby areas and, once flooded, prospective homebuyers are deterred. This innovative practice could make Pennsylvania government work better for Pennsylvanians by not only addressing inequitable situations in flood-prone communities but also increasing flood resiliency and helping mitigate the effects of climate change. In environmental justice communities, this practice could be strategically deployed to provide valuable greenspaces in urban areas where few exist, while providing flood protection to those same communities.

Sewage Facilities Regulation Update: DEP is also beginning the process to comprehensively update the Commonwealth's regulations for sewage facilities planning and permitting, and for standards for on-lot sewage treatment facilities, such as septic systems. These regulations have not been significantly updated since 1997. Among the many goals of this regulatory update, the updates to these regulations aim to provide additional opportunities for new land development in a manner that provides safe, effective long-term sewage disposal by updating provisions around site suitability for alternative on-lot sewage disposal systems. This regulatory update also aims to update the regulations to reflect the fact that, although on-lot sewage disposal was historically

considered a temporary means of sewage disposal until centralized sewage conveyance and treatment infrastructure could be extended to rural areas served by on-lot systems, the significant capital and operation and maintenance costs – and associated effects on user rates – of such centralized infrastructure extensions have led to long-term reliance on on-lot sewage disposal in many of Pennsylvania’s rural communities.

My testimony today only skimmed the surface on some of the important work DEP staff and our partners are doing to support forward-thinking, climate-resilient investments in drinking water, wastewater, and stormwater infrastructure so that Pennsylvania communities can expand economic opportunities, address environmental injustices, and enjoy safer, healthier communities for generations to come. Thank you again for inviting the Department to testify before the committee on this important topic and we appreciate the support you provide to the Department’s efforts on behalf of the citizens of this Commonwealth. We look forward to continuing to work with the legislature to address these issues. I thank you for your time, and I am available to respond to any questions you may have.