

Clean Water and Flood Abatement Task Force

**Thursday, May 23rd, 2016
11:00 a.m. – 1:00 p.m.
Tidewater Utilities**

Meeting Attendance

Task Force Members:

Present:

Senator Bryan Townsend
Representative Ronald Gray
Representative Michael Mulrooney
Secretary David Small
Holly Porter
Jeffrey Bross
Roy Miller
Howard Morrison
Brenna Goggin
Lew Killmer
Joseph Corrado
George Haggerty
Thom May
Christine Mason
Gerard Esposito
Bruce Jones
Paul Morrill
Gerald Kauffman
Jen Adkins
Michael Riemann

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Absent:

Senator Bryant Richardson
Secretary Jennifer Cohan
Sam Lathem
Patty Cannon
William Lucks
Dian Taylor
Thomas Unruh
Robert Baldwin
Gina Jennings
Andrew Jakubowitch

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Minutes prepared by Caitlyn Gordon, Legislative Aide

Minutes reviewed by Michelle Zdeb, Legislative Assistant & Task Force Staffer

Attendees:

Sue Claire Harper
 Michael Bard
 Ed Hallock
 Doug Hokuf
 Heather Warren
 Marjorie Crofts
 Lisa Pertzoff
 Jeremy Kalmbacher
 Bob Palmer
 Hanz Medlarz
 Bob Zimmerman
 Martha Narvaez
 Pam Bakerian
 Charles Postles

Organization:

LWVSC
 Delaware Nature Society
 DPH/ODW
 NCC
 DPH
 DNREC
 LWV DE
 Tidewater
 DNREC
 Sussex County
 DNREC
 UD WRA
 DE Farm Bureau
 Farmer

The Task Force meeting was brought to order at 11:11 a.m.

Consideration of Meeting Minutes

Senator Bryan Townsend, Co-Chair, welcomed Task Force members to the Task Force meeting. Next, the Senator asked if there were any changes to the April 20, 2016 and May 5, 2016 Meeting Minutes. As there were none, he asked for motions to approve both sets of Meeting Minutes.

Lew Killmer, Delaware League of Local Governments, motioned to approve.

Gerard Esposito, Delaware State Chamber of Commerce, seconded the motion.

Both sets of Meeting Minutes from April 20th and May 5th of 2016 were approved unanimously.

Updated Draft Legislation

Senator Townsend asked Paul Morrill to update Task Force members on the Draft Legislation.

Paul Morrill, Committee of 100, noted that there were two significant changes in the legislation. They added the Clean Water Plan into the legislation described as an overview master plan with a subset of features, and a strategic plan that would be updated annually and would record how the Clean Water Plan was doing. They also increased the allowable operating expenses percentage from 10 to 12 percent for the first two years to get the Clean Water Plan up and running. Then, after the two years, it will get dropped back down to 10 percent.

Additionally, he commented that legislative language was added describing the surcharge that the Task Force discussed at the previous meeting. Mr. Morrill described his fear that adding a Clean Water Fee to every hotel room in the State could start to look like a lodging tax. Mr. Morrill has been working with David Gregor, at the Department of Finance, on what the revenue impact would be without charging every hotel room in the State a Clean Water Fee.

Minutes prepared by Caitlyn Gordon, Legislative Aide

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George Haggerty, on behalf of the New Council County Executive, commented that he does not think the Task Force has drawn the nexus between flooding and clean water in the legislation.

Next, Mr. Haggerty referenced page one, “some Delawareans do not have access to potable drinking water, or basic wastewater disposals in their homes.” Mr. Haggerty thinks that these comments should be rearranged to reflect the importance of each of those issues.

Senator Townsend noted that some other members have acknowledged that flooding has not taken as much of an importance in the Task Force’s initiatives as clean water has. The Senator continued asking members what percentage flooding issues directly relate to clean water issues.

Jeffrey Bross, Water Infrastructure Advisory Council, stated that the legislation does not necessarily need to have a nexus. The intent in the bill is very clear, and for anyone who reads it, will notice that they put money behind that concern.

Senator Townsend commented that he is referencing how to respond to constituents when they are thinking about the impact of flooding, because they don’t always consider clean water.

Mr. Bross added that with flooding comes erosion, debris, disturbed ecosystems, drainage improvements, etc. He continued by saying that there is a nexus between clean water and flooding, but that might not be conveyed easily to a constituent.

Representative Ronald Gray referenced that Long Neck has an issue with 21st Century money and flooding. He continued by explaining that after years of looking into minimizing the impact of flooding in Long Neck, they noticed that when it flooded at high tide, the infrastructure of piping would not allow water to get back out quickly enough.

Senator Townsend mentioned to Task Force members that they could conference call David Gregor, Deputy Secretary of Finance, during the meeting.

Roy Miller, Delaware Center for the Inland Bays, referenced page 2, lines 26-27. He continued by suggesting this revised language: “extensive analysis of chemical containments in fish has led to advisories on fish consumption in more than 30 waterways statewide.” He noted that rewording the line as he instructed is crucial because it’s not a ban against fish consumption, it is an advisory to limit consumption.

Senator Townsend asked Task Force members if they had any objections to Mr. Miller’s proposed changes to the language. As there were none, he turned the discussion over to David Gregor, who the Task Force spoke to through speaker phone.

Senator Townsend opened the conversation by referencing the Department of Finance edits to the Draft Legislation, in particular to the \$45 increase to the Business License Fees. He continued by saying that there are questions about the \$45 fee looking like a PAT (Personal

Accommodation Tax) increase to several entities. He asked how Mr. Gregor would answer a person asking if this was a simple increase to the PAT.

David Gregor, Department of Finance, answered that there are two parts to the accommodation tax. There is an annual license fee and then an 8 percent tax on the levy. He added that this is just increasing the license portion of their tax by the same percentage that the general license fee would be increased. Hotels, motels, and tourist homes' business licenses have always been based off of the number of rooms that they have.

Right now the surcharge is \$25 per room. He continued saying that one option is to eliminate all language referencing the number of rooms. He said if that is something the Task Force wants to strike, they can strike it and adjust the rate.

Senator Townsend thanked Mr. Gregor for taking time out and calling into the meeting. He told Mr. Gregor that he and Mr. Morrill will be in touch.

Jen Adkins, Partnership for the Delaware Estuary, noted that they could charge a flat \$45 fee on everyone.

Mr. Morrill agreed. He continued by saying that they wouldn't have to change too much in the legislation to make it that way.

Mr. Killmer expressed his concerns with charging one industry more than the others with this "per room" fee.

Senator Townsend agreed, and noted that Task Force members all had not seemed to realize that this would be the case. The Senator asked members if they wanted to strike the "per room" charge and just change it to a \$45 flat fee for the hotels, motels, and all other impacted entities. The Task Force members did not object to Senator Townsend's proposal.

Mr. Morrill noted that there was discussion with Bond Council, and they raised the issue that the State will not be in the position to ensure Bond holders that personal income tax rates may not be lowered in the future, which would impact the security of their bonds. They asked how to solve that. Mr. Morrill noted that their suggestion for the legislation was to make a minimum payment coming from the Department of Finance for the Clean Water Trust of \$20 million, so it will never go lower than that.

Senator Townsend agreed with Mr. Morrill's comments. The Senator added that the lockbox is still necessary. He referenced lines 639-640 in the legislation and asked if members wanted to strike that language as well, since it references the manufactured housing industry.

Mr. Morrill noted that the referenced section also included trailer park lots.

Secretary David Small, Department of Natural Resources and Environmental Control, referenced the bonding question. He said that Bond Council may want to suggest language because currently the full faith and credit of the State is not pledged. However, based off of statements Mr. Morrill relayed to the Task Force, previous conversations that he had suggests that it could be. Secretary Small noted that this may impact the standalone authority of the Trust.

Mr. Morrill responded that it is more a guarantee that “X” amount of dollars will come from the Department of Finance to the Clean Water Fund.

Mr. Killmer referenced lines 236-239 in the legislation. He commented that this section states what a director, officer, or employee is not allowed to do. He asked for clarification about the last sentence, “the existence of any such interest shall not affect the validity of bonds issued pursuant to this chapter.” He followed by asking, if someone committed an illegal action in this process, if the language suggests that once the bonds are issued, that their actions won’t have any impact on the bond.

Senator Townsend answered that it means if someone did something illegal, they couldn’t also make the argument that a bond is invalid and therefore get out of the bond.

The Senator then asked what the status of the conversations was regarding Artesian and Bond Council.

Mr. Bross responded that he does not want to speak for Artesian, but it seems as though some of their concerns, especially relating to the Level IV issue, were addressed. Artesian is now able to seek financing for projects that exist in Level IV, they just cannot expand into Level IV.

Mr. Morrill noted that they still need to have the conference call with the EPA (Environmental Protection Agency), Region 3, to answer the rest of Artesian’s questions about the bonding and comingling.

Brenna Goggin, Delaware Nature Society, reminded Task Force members to register for the rally, on June 7th from 10:30 a.m. to 12:30 p.m. She noted members and public can register at delnature.org/cleanwater.

Michelle Zdeb, Task Force Staffer, offered to circulate the information to members.

Draft Report

Senator Townsend turned the discussion over to the Draft Report materials. He noted that Bruce Jones, American Council of Engineering Companies of Delaware, would describe the Draft Scope of Challenges document.

Please find the documents of the Draft Report that were discussed during the meeting below:

Minutes prepared by Caitlyn Gordon, Legislative Aide

Minutes reviewed by Michelle Zdeb, Legislative Assistant & Task Force Staffer

Introduction

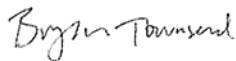
The Clean Water and Flood Abatement Task Force (the “Task Force”) was established by the 148th General Assembly via Senate Concurrent Resolution No. 30. In authorizing the Task Force, the General Assembly instructed it to inquire into, examine, study, and make Findings and Recommendations related to improving clean water and flood abatement in Delaware.

This Report summarizes the work of the Task Force and sets forth legislation the Task Force proposes be enacted by the General Assembly for the long-term benefit of Delawareans. The Task Force was comprised of members from the General Assembly; cabinet-level members of Governor Markell’s administration; representatives from various State agencies; offices from all three counties in Delaware; several private organizations; the Water Infrastructure Advisory Council (WIAC); several non-profit organizations; and the agricultural community.

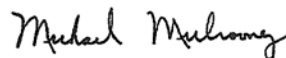
The members of the Task Force discharged their duties over the course of [##] meetings from July 2015 until [XXXX] 2016. The Task Force members worked diligently, in good faith, and with the goal of identifying ways to improve water quality and relieve flooding in Delaware.

In the pages that follow, the Findings, Recommendations, and Draft Legislation of the Task Force are set forth, as are a Summary of Topics from the Task Force meetings. The summaries have been crafted to give readers an understanding of the depth and breadth of the issues examined by the Task Force. For those readers who are interested in more detail, the formal Meeting Minutes of each meeting are also provided. We invite the reader to review the detailed Meeting Minutes so as to understand more fully the hard work and thorough deliberation of the Task Force.

The Task Force Co-Chairs thank each and every member of the Task Force for their service and participation in the course of the Task Force’s work. The Task Force identified several areas for improvement, as well as examples of recent improvement that may not have been widely known. It will be the responsibility of our elected and appointed officials to follow through on the thorough work of the Task Force and to examine and implement its Recommendations. We accept that responsibility, and we look forward to fulfilling it in the weeks and months to come.



Senator Bryan Townsend, Co-Chair



Representative Michael Mulrooney, Co-Chair

May 24, 2016

TASK FORCE FINDINGS

1. Clean water is essential to the health and vibrancy of Delaware's population, economy, and environment.
2. As of 2016, Delaware faces significant challenges with regards to statewide water quality. More than 90 percent of Delaware's waterways are impaired. This impairment is due largely to nutrient pollution but also due to toxic pollutants. Although point-source pollution should be minimized and laws enforced as much as possible, nonpoint source pollution poses a clear, present, and driving threat to water quality in Delaware.
3. Legacy issues are a significant source of impairment in Delaware's waterways, though ongoing activities and nonpoint source pollution continue to pose challenges. In total, barriers to clean water threaten segments of Delaware's economy that comprise \$_____ in annual economic activity and \$_____ in annual revenues to the State.
4. In addition to the direct, long-term economic, environmental, and health benefits of clean water in Delaware, projects to enhance water quality will have a stimulating effect on the Delaware economy through the employment of community members involved in the design, construction, and monitoring of water quality projects.
5. Delaware's agricultural community has adopted many voluntary Best Management Practices (BMP's) as well as regulatory practices through the Nutrient Management Law in order to minimize non-point source pollution. A large portion of the voluntary BMP efforts are known to Delaware agricultural leaders and environmental regulators through cost-share programs, but there are many others that farmers have implemented that may not be accounted for.

6. Statewide, Delaware has made significant progress in adopting better pollution controls in recent years. The impairment of Delaware's waterways did not occur quickly, however, and even with recent adoption of better practices it will take time to return our waterways to a healthy state.

7. There is a consistent lack of public awareness and understanding of water quality issues and the drivers of Delaware's impaired waterways. A sustained campaign promoting public education on these issues would be of broad public benefit, including efforts that distinguish between the water pollution that is occurring upstream from Delaware and the water pollution that is occurring right here within our own borders.

8. Delaware has the scientific knowledge and engineering know-how to resolve its water quality challenges. It currently lacks sufficient funding to do so. Yet in a survey, nearly 75 percent of Delawareans indicated they would be willing to pay \$3.75 per month (which amounts to \$45 per year) for clean water projects.

9. Over time, total funding for water quality has not kept pace with funding needs and with increasingly rigorous standards for what is considered to be clean, unimpaired water. Federal funding has not increased over time, and state-level funding has been inconsistent, even in the face of regulatory drivers that ultimately have consumed so much of any available funding. Inconsistent state-level funding includes the recent underfunding of Delaware's Twenty-First Century Fund to address stormwater and flood control. In total, this has resulted in insufficient funding to meet Delaware's water quality challenges. There currently is a shortage of \$100 million annually in the amount of funding needed for water quality programs in Delaware.

10. At times, local governments have been unwilling (e.g., refusing to go to referendum) or unable (e.g., failing to pass a

referendum) to secure partial funding from their own local tax bases to provide critical partial matching of the Council's resources. This has resulted in pressures and requests for grant money, rather than in local governments entering into long-term loan arrangements.

11. The current model and amount of resources are not meeting Delaware's water quality needs. More funding is needed, and a sustained, predictable source of funding that can be leveraged is a model that could have a tremendously positive impact on water quality in Delaware, particularly if the model also accounted for public-private partnerships that might form around clean water initiatives.

12. Through its Water Infrastructure Advisory Council (WIAC), over time Delaware has addressed many important water quality projects. The funding for these projects has come in the form of both loans and grants, and the awarding of funds has involved a transparent, data-driven review process. The size of the revolving funds via which WIAC supports water quality projects is \$_____, with annual funding ranging from \$_____ to \$_____ in recent years.

13. There is no perfect collection process for any statewide fee that might be implemented to raise resources for clean water and flood abatement projects. Any system would inevitably involve administrative costs, and tying collections to existing forms of billing or collections for other water-related activities would risk confusing the reasons for the additional fees as well as the parties responsible for levying and directing the fees.

14. The composition of WIAC, as well as the length of its members' terms, can be updated to include Delaware's agricultural community and to encourage more frequent appointments or reappointments to WIAC.

TASK FORCE RECOMMENDATIONS

1. The Delaware General Assembly should ***significantly*** increase the annual investments in upgrading and maintaining Delaware's water infrastructure, promoting water quality, alleviating flooding and providing flood control, and preventing or responding to stormwater damage.
2. Annual investments in water infrastructure should be funded via a statewide per-household and per-business fee ("Clean Water Fee") that enables sustained, reliable funding and the leveraging of these resources to obtain additional funding from federal and private sources.
3. The Clean Water Fee should be collected in an administratively practical way, to the most effective and efficient extent possible. The revenues from the Fee should be pooled in a fund whose use – absent a supermajority vote of the General Assembly – is focused exclusively on water quality projects and on the scientific monitoring and measurement necessary to gauge accurately the impacts of the projects and the overall quality of water in Delaware.
4. Increased annual investments in water infrastructure should be made in the form of loans and grants, with loan and grant decisions made in a manner similar to the established policies and practices of Delaware's Water Infrastructure Advisory Council (WIAC), a diverse group of informed individuals. The membership of WIAC should continue to include a mix of public sector and private sector appointees who represent a variety of perspectives that come to bear on the measurement, design, construction, implementation, and maintenance of systems relating to water quality and flood control. Delaware's agricultural community and conservation districts should be represented within this diverse group, especially in light of the continued

opportunities to enhance water quality in Delaware via coordination with these groups.

5. The WIAC's investment decisions should be made in accordance with a transparent, data-driven application process, on the basis of the merits underlying each application for funding and generally in accordance with an updated long-term clean water plan for Delaware. Appropriate consideration should be given not only to projected efficiencies (such as consideration of a project's proposed cost per pound of reduced nutrient runoff) and utilization of green infrastructure techniques, but also to environmental justice. Here, environmental justice refers to the ideal that people of more limited economic means should not consequently have to live in environmental conditions hazardous to their health. This ideal can be realized by consideration specifically being given to grant applications or grant expenditures that would alleviate water quality challenges or flood control challenges for communities of limited economic means.

6. Collection of the Clean Water Fee should be facilitated via the Delaware Department of Finance, as a surcharge to personal income tax liability and as an increase in business license fees. This Task Force considered several alternatives to this proposal, including via property taxes, surcharges on water bills, increases to the personal accommodation tax, charges on septic system and well permits, and other methods. Ultimately the Task Force deemed this proposal to be the one most likely to lead to a successful collection of the Clean Water Fee, including administrative practicality and clarity, as well as equity more broadly.

7. As public education is a critical element of building and sustaining public awareness of water quality and flood issues, as well as the public's faith in the merits of the Clean Water Fee and the WIAC, a sustained public education and outreach campaign

should be developed and appropriately funded. This development and funding should be in addition to the scientific measurement of water quality and flooding in Delaware, as well as the construction, operation, and maintenance of physical projects that will address water quality and flooding in Delaware.

Please note pages 13-18 are the Draft Scope of Challenges document.

DRINKING WATER

As is self-evident, drinking water is the most essential of all fundamental needs of human life. Much of Delaware's drinking water infrastructure is nearing the end of its useful life and approaching the age at which it needs to be replaced or repaired. This means that water is being lost to leaking pipes, broken water mains and faulty meters. In addition, water treatment plants are struggling to meet treatment demands to provide safe drinking water to our population.

Drinking water infrastructure is a term used to describe an entire drinking water system, from the source to the tap. The needs associated with the components of a drinking water system can be broken down into the following five groups: source, treatment, storage, transmission/distribution and other.

Source projects include the installation and rehabilitation of ground water sources (wells) and surface water intakes to ensure an adequate supply of water is available to meet daily demands.

Treatment projects include those needed to reduce contaminants through processes such as filtration, disinfection, corrosion control and aeration. The installation, upgrade or rehabilitation of treatment infrastructure also enables removal of contaminants that can cause chronic health effects or taste, odor and other aesthetic problems.

Storage projects construct new or rehabilitate existing raw and/or finished water storage tanks. Construction of new tanks is necessary if the system cannot provide adequate flows and pressure during peak demand periods. Many projects in this category involve rehabilitating existing tanks to prevent structural failures or sanitary defects that can allow microbiological contamination.

The transmission and distribution category includes the installation and rehabilitation of raw and finished water transmission and distribution mains, as well as the replacement of lead service lines, flushing hydrants, valves, meters and backflow prevention devices. Utilities need to install and maintain distribution systems to provide potable water to their customers while preventing contamination of that water prior to delivery. Although treatment plants or elevated storage tanks are usually the most visible components of a water system, most of a system's infrastructure is underground in the form of transmission and distribution mains. Failure of transmission and distribution mains can interrupt the delivery of water leading to a loss of pressure, possibly allowing a backflow of contaminated water into the system. Broken transmission lines also can disrupt the treatment process.

The "other" category reflects needs that cannot be assigned to one of the prior categories. Examples include emergency power generators not associated with a specific system component, computer and automation equipment, and projects for system security (fencing, security cameras, etc.).

Program Needs

A state funded grant incentive is needed to repair, replace or rehabilitate existing water facilities and to encourage communities to implement sustainable practices and address at risk drinking water systems such as very small, privately/non municipally owned systems.

WASTEWATER

Across the State of Delaware wastewater infrastructure serve over ___% of our population. This infrastructure is aging and investment is not able to keep up with the need. When the Clean Water Act was passed in 1972, it was accompanied by considerable federal funding to support the construction and upgrading of these facilities to insure that impacts from municipal wastewater would be controlled. These efforts were largely successful, as the period from the 1970s through the 1980s saw significant water quality improvement across the state. However, since then funding for maintaining and upgrading these facilities has been greatly reduced. As many of these plants that reach the end of their 30- to 40-year design lives, previous water quality gains are in danger of being lost.

In addition to the treatment plants themselves, sewer systems that convey wastewater to the plants for treatment are also deteriorating. Overflows of raw sewage from these sanitary systems as well as from older combined sewer systems that capture both sanitary wastewater and storm runoff and are designed to overflow during heavy rain and runoff events result in considerable water quality impacts across the state.

Because Delaware depends on our vast water resources for industry, recreation and tourism, clean water is vital for our economy across the state. The protection of our waters, the health of our communities and the prospects for future economic growth are linked to modern, reliable and efficient wastewater treatment systems. An inadequate wastewater treatment infrastructure jeopardizes the viability of current and future businesses, stymies economic growth and development, and threatens the quality of life for Delaware State residents.

Wastewater infrastructure is a term used to describe the network for collection, treatment, and disposal of sewage in a community, i.e., pipes, sewage treatment plants, outfalls, etc. The needs associated with the components of a wastewater system can be broken down into the following three groups: collection and conveyance, treatment and disposal and other.

There are two major components of a collection and conveyance system: wastewater collection pipelines and wastewater pump stations. The largest component of the collection and conveyance system are gravity sewers. Gravity sewers collect and convey wastewater by gravity to a central location for either treatment or to a pump station for further conveyance.

Pump stations convey wastewater through pressurized pipes called forcemains to wastewater treatment facilities or to other pump stations. Most of our wastewater gravity systems, pump stations and forcemains are near the end of their useful life and require repair, rehabilitation or replacement.

In a wastewater treatment plant, domestic wastewater is treated to enable it to be discharged back into a watercourse. The wastewater produced by private households is polluted largely by dissolved biodegradable substances. A wastewater treatment plant is essentially divided into the following sections: mechanical treatment; biological treatment; and sludge treatment. Depending on the properties of the wastewater and the treated water quality requirements, further steps may be necessary, such as removal of nitrogen, phosphorus and toxics.

Wastewater collection, conveyance, treatment and disposal facilities in Delaware are deteriorating. Most of Delaware's residents rely on these facilities to treat wastewater from our homes and businesses before they return it to our waterbodies.

Program Needs

A state funded grant incentive is needed to repair, replace or rehabilitate existing wastewater facilities and encourage communities to implement sustainable wastewater collection, conveyance, treatment and disposal practices.

STORMWATER

The State of Delaware has difficulties addressing our stormwater infrastructure needs for resolving growing water quality and quantity challenges. From meeting regulatory requirements to maintaining and updating infrastructure in the face of tightening and sometimes shrinking budgets, along with very limited federal funding, Delaware's public sector is faced with an increasing set of challenges to meet our residents' important water resource needs

Stormwater Management needs are generally grouped into four subcategories: conveyance of stormwater via pipes, inlets, roadside ditches, and other similar mechanisms; treating stormwater with wet ponds, dry ponds, manufactured devices, or similar means; low impact development and green infrastructure projects; general stormwater management activities, such as street sweepers, vacuum trucks, education program startup costs, and mapping and tracking systems.

In addition to the stormwater needs presented above, the Clean Water Act (CWA) that became law in 1972 requires that Delaware's (and all U.S.) streams, rivers, and lakes meet certain water quality standards. The CWA also requires that Delaware conduct monitoring to identify polluted waters or those that do not meet standards. Through this required program, the State of Delaware has found that many stream segments do not meet state water quality standards for protection of the five beneficial uses: fishing, swimming, shellfish, aquatic life, and drinking.

When streams fail to meet standards, the CWA requires that a water quality implementation plan be developed that identify comprehensive, multi-year water quality implementation projects. The purpose of the projects is to implement on-the-ground activities or Best Management Practices, BMPs, in order to improve water quality and meet water quality standards. The goal of these projects, through restoration and protection efforts, is to meet water quality standards.

More than 85 percent of Delaware's waterways do not meet one or more water quality standards and are considered too polluted for their intended uses. Water quality implementation plans must be developed and implemented for each of these waterways.

Finally, in 1990, EPA promulgated rules (Phase I of the National Pollutant Discharge Elimination System [NPDES]) requiring municipal separate storm sewer systems (MS4s), that is, those storm sewer systems that generally serve populations of 100,000 or greater, to implement a stormwater management program as a means to control polluted discharges from these MS4s. Coverage of the NPDES stormwater program has been extended to include certain "small" communities.

Twenty MS4 communities have been identified in the State of Delaware. Each of these MS4s must prepare a stormwater management program containing elements that address the following six technical areas: 1) Public Education and Outreach; 2) Public Involvement and Participation; 3) Illicit Discharge, Detection and Elimination; 4) Construction Site Stormwater Runoff Control; 5) Post-Construction Storm Water Management; and 6) Pollution Prevention and Good Housekeeping.

Program Needs

A state funded grant incentive is needed to help make Clean Water State Revolving Fund loans more affordable and to provide needed grant assistance for: project planning and design; and water quality implementation and MS4 compliance plans. Incentive programs are needed to encourage communities to move forward with sustainability and stormwater utility projects.

Creation of a program to continue assessment of trends and implementation/coordination of priority remediation and restoration projects.

Cost Share Best Management Practices (BMPs) for Conservation Practices such as cover crops, buffers, manure and nutrient management, Conservation Reserve Enhancement Program and channel restoration practices.

Additional stream gauge and monitoring stations and support for program staffing.

Additional funding to support core water permitting services and timely issuance of permits.

FLOODING/DRAINAGE

Many Delaware communities are plagued by flooding that is anticipated to worsen as climate patterns change. Significant flooding is documented throughout the State of Delaware and you don't need to live on the coast to be at risk. Flash floods, inland flooding and seasonal storms affect every region of the state significantly impacting homes, businesses, properties and natural resources.

With a mean elevation of just 60 feet above sea level, Delaware is especially vulnerable to flooding from rising sea levels and coastal storms. More than 331 square miles of Delaware's land mass, or about 17 percent, are within a mapped 100 year floodplain. From urban areas to farming communities, flooding and drainage issues affect most Delawareans at one time or another.

With respect to drainage in Delaware, between 2007 and 2011, DNREC and the three Conservation Districts responded to over 2,000 requests for assistance with drainage problems at the homeowner or community level. Over a five-year period, these drainage concerns represent one for every 228, 154, and 122 housing units in New Castle, Kent, and Sussex Counties, respectively.

To address flooding and drainage issues, State, County and local governments require funding for the development of long term flood protection/resilience and drainage improvement plans, and the implementation of flood mitigation and drainage improvement projects.

Program Needs

Additional funding beyond the current cost share funds provided by Delaware's operating budget.

Additional funding to provide technical assistance necessary for planning, surveying, engineering and landowner work for drainage projects statewide.

Additional funding to provide 21st Century Fund drainage improvement projects.

Engineering and construction funds to conduct several multi-phase major flood management and reduction projects statewide annually.

AGRICULTURE

Close to ___% of the land in Delaware is devoted to agricultural production. Agriculture is essential to all people of the state. But agriculture is also the one of the largest sources of nutrient and sediment pollution entering our waterways.

While the agricultural community is working hard to curb runoff, funding is required to further implement conservation practices or best management practices to further reduce runoff and protect our surface waters.

Program Needs

Funding for the development and implementation of Nutrient Management Programs.

LEGACY POLLUTANTS

Legacy pollutants in Delaware's waterways are those that are primarily the result of historical contributions. Legacy pollutants stem from agricultural and manufacturing no longer practiced and include some pollutants currently banned by regulation.

Because legacy pollutants in Delaware's waterways are persistent, it may take decades for their levels to naturally decline. Limiting management solely to ongoing contributions or sources (such as air deposition, storm water runoff, and municipal industrial wastewater) may not be sufficient to achieve water quality standards.

Program Needs

Funding for collecting information and monitoring the inputs of pollutants from sediments and other legacy sources is important to understanding pollutants in the Estuary and working to control them.

GROUNDWATER

Ground water is generally of good quality suitable for most uses except in the isolated parts of confined aquifers that contain saline water. Treatment to remove dissolved iron is needed in some parts of the unconfined aquifer. Nitrate plus nitrite concentrations commonly are a problem in the unconfined aquifer, principally in Kent and Sussex Counties in areas associated with agriculture and the poultry

industry. Septic systems also are a potential source of nitrate. Intrusion of brackish or saline water has occurred in the unconfined aquifer adjacent to Delaware Bay and the Atlantic Ocean. Contamination from waste-disposal practices causes some localized. Most of the industrial waste-disposal sites are located in New Castle County along the Delaware River. Contaminants from these sites include iron, manganese, dissolved solids, organic acids, and volatile organic compounds.

Program Needs

Funding for statewide efforts to assess and monitor groundwater through a variety of sampling and monitoring programs.

Funding for additional well and monitoring stations and support for program staffing.

Cost Summary Table

	Annual Infrastructure Funding	Annual Operations Funding	Total Annual Funding
Drinking Water			\$0
Wastewater			\$0
Stormwater/Surface Water			\$0
Groundwater			\$0
Agriculture			\$0
Legacy Pollutants			\$0
Total			\$0

Water Infrastructure Investment in Delaware

FACTS

- Clean water is essential to the health and vibrancy of Delaware’s population, economy, and environment
- More than 85 percent of Delaware’s waterways do not meet one or more water quality standards and are considered too polluted for their intended uses
- Many Delaware communities are plagued by flooding that are anticipated to worsen as climate patterns change
- Much of Delaware’s water infrastructure is nearing the end of its useful life and approaching the age at which it needs to be replaced
- Water infrastructure is critical for long-term economic growth, increasing GDP and employment
- Water infrastructure funding continues to decline while costs and inflation increase



The Delaware Clean Water Task Force estimates an initial annual investment of

\$100 Million

is needed for water infrastructure capital improvements to address existing water quality concerns



Delaware Water Infrastructure Investment Benefits

- Improved Water Quality! – Resulting in enhanced enjoyment of our surface waters
- Restored water infrastructure resulting in upgraded and reliable service, decreasing disruptions, and decreasing expenditures for emergency repairs
- Flood Mitigation – Resulting in reduction of property and critical infrastructure damage

Investment in Water Infrastructure is an Investment in Delaware’s Long-Term Economic Growth

\$1 million in direct spending by water/wastewater utilities supports 16 jobs throughout all sectors of the economy¹

$$\begin{array}{ccccccc}
 \mathbf{\$1\ Million} & = & \mathbf{5\ Jobs} & + & \mathbf{11\ Jobs} & = & \mathbf{16\ Jobs} \\
 \text{Investment} & & \text{Direct Impact}^2 & & \text{Indirect Impact}^3 & & \text{Total}
 \end{array}$$

1 – National Economic and Labor Impacts of the Water Utility Sector – 2014 – Water Environment Research Foundation

2 – Employment provided by water sector

3- Employment provided by other industries that are supported by water infrastructure expenditures

To address these long term needs, Delaware’s Clean Water Task Force, Water Infrastructure Advisory Council and ACEC – Delaware recommend that a statewide dedicated source of water infrastructure funding be established and maintained

The following questions and comments were made during the presentation.

Ms. Adkins asked if there could be more references to green infrastructure in the Scope of Challenges document.

Senator Townsend answered yes. He asked whether members think this should be in an additional section, or if language regarding green infrastructure should be integrated into the preexisting language.

Ms. Adkins noted that green infrastructure could fit under every category.

Mr. Morrill noted that the Task Force should not use the word “green infrastructure” because they did their best to take “infrastructure” out of the legislation.

Senator Townsend asked members if not using infrastructure in the legislation means that they cannot put it in the Findings and Recommendations either.

Mr. Morrill answered that keeping it out of the legislation was his priority so they could be more precise within the legislation.

Secretary Small stated that the Task Force should spend a little time reflecting on the delivery of the products and projects because the Task Force is recommending the systems that are already in place and taking a more comprehensive approach to funding and managing water resource needs in the State. Secretary Small noted that the Task Force needs to point that out. Additionally, they should show current funding levels and show the contrast of the need the State has moving forward.

Senator Townsend noted that they could put that in the Findings.

Ms. Adkins stated that the Scope of Challenges document could use an intro.

Senator Townsend reminded members to send any edits that they had to him. He also brought the discussion back to the “green infrastructure” decision.

Ms. Adkins replied that a separate section regarding green infrastructure would be best.

Senator Townsend referenced a project list to give the public, and legislators, an idea of what the Task Force is talking about. He added that the list should be another item to include in the Final Report.

Mr. Miller commented that they might want to include the four major watersheds in the State.

Secretary Small replied that DNREC could easily put together a map that shows the four watersheds and that also includes descriptions about how each one differs and what their significant challenges are.

Senator Townsend responded that the list would be helpful for the report, if members agree that it is ready to put in by the next Task Force meeting. The Senator also stressed the importance of continuing an education campaign about clean water in Delaware.

Senator Townsend commented that the next Task Force meeting will be on either June 13th or 14th and the date, time, and place will be circulated to Task Force members in the near future.

Mr. Corrado thanked Task Force staffers, Michelle Zdeb and Caitlyn Gordon for all of their work.

Senator Townsend asked members of the Task Force and members of the public if they had further comments. As there were none, the meeting was adjourned at 1:02 p.m.

Please find an additional document that Task Force members received on pages 23 & 24.

CLEAN WATER IS ESSENTIAL TO EVERYONE.

Contaminated water doesn't just affect fish and wildlife living in our local streams -- it affects our everyday lives. The health of our water impacts the food we eat, the streams and waterways near our homes, and the trips we take to the beach with our families.

CHALLENGES

86% of Delaware rivers/streams are not recommended for swimming due to high levels of bacteria¹

100 miles of Delaware's waters have fish-consumption advisories from high PCBs, metals, and pesticides¹

\$650-700 million worth of investments in wastewater infrastructure will be needed in Delaware over the next six years²

1 acre of tidal wetlands are collectively being lost every day in the Delaware region³

OPPORTUNITIES

Additional investments in innovative clean water programs could result in:

Decreased contamination in our waterways

Improved protection of our drinking water sources

Reduced pipeline breakage and sewage overflows

less flooding in our coastal and inland communities

cleanwaterdelaware.org

Visit our website to:



Sign our pledge of support



Get the latest updates about the campaign and water quality issues in the state

THE CLEAN WATER CAMPAIGN: DELAWARE'S CLEAR CHOICE

Our campaign is a statewide education and outreach effort focused on securing additional funding for clean water.

¹ <http://www.jp.a.udel.edu/publications/EconomicValueDelawareWatersheds.pdf>
² <http://www.dnrec.delaware.gov/fab/Pages/Statewide-Needs-Assessment-2011-2016.aspx>
³ https://s3.amazonaws.com/delawareestuary/pdf/TREB/PDE-Report-12-01_Technical%20Report%20for%20the%20Delaware%20Estuary%20and%20Basin.pdf





TIPS FOR IMPROVING WATER QUALITY IN EVERYDAY WAYS

Tips for Your Home

- Get your home certified as Wildlife Habitat. (Hint: If you take many of the below steps, it will be easy to get certified. Ask us for more information!)
- Plant more native trees around your home to help prevent water pollution and slow the speed of stormwater flow. Many local conservation organizations can provide guidance. Contact us and we can get you in touch with one!
- Install a rain barrel to collect water from roofs and downspouts and use the collected water for washing your vehicles, gardening or watering your lawn. We can help you with instructions on how to make/purchase a rain barrel and install it!
- Create a rain garden using native plants and landscaping to help soak up storm water coming from nearby downspouts and driveways, which reduces the pollution going to nearby rivers, streams and waterways. We can help you choose the best native plants for your property!
- Add planters filled with native plants and flowers to your sidewalks and other hard services like driveways and cement pads. Planters can also be placed under downspouts to collect storm water from your roof! This container garden will help soak up storm water that would otherwise be swept away into our waterways via storm drains.
- Sweep your sidewalks and driveways instead of hosing them off. The water from the hose carries excess lawn clippings and fertilizer into nearby storm drains.
- Pick up your pet's waste. A measureable amount of bacteria in our waterways comes from pet waste that has been washed into our storm drains, creeks and streams from rain and snow melt.
- Instead of bagging grass clippings, recycle them by leaving them on your lawn. Those clippings act as a natural fertilizer and save our landfills from bagged clippings and help reduce the amount of fertilizer applied to grass!
- Compost your yard waste and kitchen scraps.
- Use your own, or commercially available, compost as an alternative to fertilizer on your property.
- In the winter, when de-icing your property's walkways and streets, consider adding sand for traction so de-icing agents don't end up in our waterways or sweep up any unused de-icing agents and recycle for the next storm.

- If you have a septic tank, have it inspected and maintained regularly. Your local health department can provide guidance.
- Dispose medications and pharmaceuticals properly, do not flush them down the toilet. We can provide you with guidance.
- Participate in Delaware's Livable Lawns program. Go to delawareliveablelawns.org for more.
- Contact the Delaware Solid Waste Authority to ensure proper disposal of household chemicals.

Tips For Your Cars and Boats

- Check your cars and boats for oil leaks and regularly maintain your vehicles to reduce oil use.
- Wash your vehicles on gravel, grass or other permeable surfaces that can help filter harmful soaps from reaching our waterways.
- If you hold charity car washes, block nearby storm drains or invest in a vacuum pump so you can empty the water in a sink, where it will be treated at a wastewater facility, instead of down a storm drain, which goes directly into our waterways.
- Use oil absorbent pads in your boat's bilge to reduce oil leaking into our waterways.
- Use environmentally safe paint to when protecting the bottom of your boat from fouling.
- Always carry your trash ashore after a day on the water and secure trash while it is on the boat.

Tips For Water Conservation

- Inspect and fix leaky faucets and showerheads.
- Use low-flow or WaterSense devices on faucets and showerheads.
- Turn off the tap when brushing your teeth.
- Wash only full loads of laundry and dishes in both your home and business.
- Purchase EnergyStar® appliances going forward.
- Use sprinklers on your lawn or property minimally, and when you do, run your sprinklers before 8am.

www.cleanwaterdelaware.org