

Dialogue on Financing Wastewater and Stormwater Infrastructure

STATE OF DELAWARE

Sponsored by:

Delaware Public Policy Institute (DPPI)

Office of the Governor

Office of the Lt. Governor

Department of Natural Resources and Environmental Control

Wastewater and Stormwater Facilities Council





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Executive Summary

Establishment of a Policy Dialogue

In the fall of 2005, Governor Ruth Ann Minner asked the Delaware Public Policy Institute (DPPI) to help convene a policy dialogue on financing wastewater and stormwater infrastructure for the 21st Century to help guide the Governor, the Department of Natural Resources and Environmental Control (DNREC), and the Wastewater Facilities and Surface Water Management Advisory Council (the Council) in discharging their responsibilities. The Governor determined the need for identifying predictable sources of funding for both wastewater and stormwater and, within that statewide need, addressing regional differences in both needs and resources. With the assistance of Lt. Governor John Carney, Chair of the Livable Delaware Advisory Council, the Governor’s Office, and DNREC staff, DPPI organized and convened a policy dialogue of stakeholders from across the state (attendance list is on page 19).

- The dialogue was organized around three key questions:
- What are the current and future statewide challenges facing wastewater and stormwater infrastructure?
 - Is a dedicated, longer-term funding source for wastewater and stormwater infrastructure needed?
 - If such a funding source were established, what mechanism(s) might be used to provide those funds?

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Delaware's Wastewater Infrastructure, Funding and Future Funding Needs

The Wastewater Facilities and Surface Water Management Advisory Council's (the Council) most recent estimate of total funding needed for capital wastewater infrastructure from 2007 through 2011 is \$418.6 million. The estimated funds from various sources to cover these costs total some \$483.3 million, or, a seeming surplus of more than \$60 million. However, in order to determine financial support (grants, low interest loans, or a combination) for proposed projects, the Council takes into account the affordability of wastewater collection and treatment, on average, for that system's users. The Council has determined that any provider with an affordable user rate of 1.5% of median household income or higher could be eligible for Council assistance. Thus, by using the affordability index of 1.5% of median household income, the Council has determined that some \$84 million in grants and loan funding from the State is needed to ensure Delaware's citizens of access to effective and affordable wastewater treatment. Annualized, this gap is estimated at \$16.8 million per year.

Delaware's Stormwater Infrastructure, Funding and Future Funding Needs

Unlike the relatively centralized structure of wastewater facilities (with the exception of community and individual septic, of course), stormwater facilities are built and maintained by a diverse and diffuse mix of private homeowners and developments, municipalities, counties, and the state's Department of Transportation (DelDOT). Governor Minner's 2005 Task Force on Surface Water Management, by considering 21st Century Fund requests, watershed planning needs in seventeen priority watersheds (there are 42 watersheds in Delaware), tax ditch needs, other county-identified needs, and New Castle County's emergency funding, estimated the total projected five year capital need was some \$207 million, or annualized costs of some \$41.5 million. This figure does include \$17 million for recent New Castle County emergency funding.

The dialogue took these earlier efforts under advisement in considering their recommendations. They considered the Task Force's \$41.5 million estimate and also considered a lower number should the New Castle County emergency funding not be included because it is already underway, of \$24.5 million (\$41.5 million minus \$17 million). The dialogue estimated existing, current capital funding annually from the 21st Century Fund, miscellaneous funding, and current local funding, at \$11 million. Thus, the annual



Dialogue facilitator, Patrick Field, asks for a clarification. Photo by Dee Marvin



Wilmington Public Works Director Kash Srinivasan at the dialogue. Photo by Dee Marvin

funding gap is estimated at between \$13.5 million to \$30.5 million annualized. This range occurs because of the preliminary nature of the research and the uncertainty as to the number of projects these entities can implement within a specific time given their limited resources.

The dialogue's scope included exploring the means for obtaining a dedicated source of statewide capital funding for wastewater and stormwater. This funding, in loan and grant assistance, would be directed to projects related to aging infrastructure, upgrades for regulatory requirements, and improvements that may involve accommodating growth as systems are upgraded. Planning activities associated with this infrastructure development would take into account current and future conditions. The dialogue did not explore dedicated, statewide funding sources for projects primarily driven by new growth. In general, as is the Administration's current intent and practice, the participants recommended that costs for growth related to wastewater and stormwater infrastructure should pay for themselves through impact fees and/or other means.

Furthermore, the dialogue did not generally consider operations and maintenance costs, as they are expected to be borne through other means, be they user fees or statewide funds for such activities as DelDOT stormwater related maintenance. However, given the backlog of operation and maintenance needs on stormwater infrastructure (often leading to new capital costs due to long-term lack of maintenance) some estimates of stormwater maintenance needs were discussed.

Dialogue Recommendations

Given the current situation described above, the dialogue developed the following recommendations. The recommendations are organized by whom the recommendations are intended for and in order of priority.

A.

Recommendations to the State of Delaware

Recommendation A1: The State of Delaware should establish a dedicated source of statewide wastewater and stormwater funding.

Recommendation A2: The State of Delaware should rename the Stormwater and Wastewater Advisory Council (SWAC) the Clean Water Advisory Council (CWAC).

Recommendation A3: The State of Delaware should, in

consultation with the Division of Public Health, Office of Drinking Water, reallocate \$5 million in funds presently allocated for drinking water infrastructure for financing wastewater and stormwater infrastructure projects.

Recommendation A4: The State of Delaware should optimize leveraging of existing capital funds and Revolving Loan Fund repayment streaming. This includes leveraging the Water Pollution Control Revolving Fund as well as cross collateralizing the Water Pollution Control Revolving Fund and Drinking Water Revolving Fund – and any future dedicated funding sources

Recommendation A5: The State of Delaware should establish funding that is adequate and predictable from Abandoned Properties collections dedicated to wastewater and stormwater infrastructure. These funds should be, if possible, leveraged for additional capital bonding abilities.

Recommendation A6: The State of Delaware should consider establishing a statewide building permit fee.

Recommendation A7: The State of Delaware should consider establishing a statewide clean water fee.

Given the estimated funding gaps and the proposed mechanisms for providing funding, Table 4 on page 11 outlines the gap and the potential revenues generated by these options.

B.

Recommendations to the Clean Water Advisory Council (CWAC) and the Department of Natural Resources and Environmental Control (DNREC)

Recommendation B1: The Clean Water Advisory Council shall provide for and DNREC should develop detailed watershed plans for all of Delaware’s waters.

Recommendation B2: The Clean Water Advisory Council shall encourage and provide for increased education on stormwater management.

Recommendation B3: The Clean Water Advisory Council should review and refine projected stormwater infrastructure capital and operations and maintenance funding gaps.

Recommendation B4: The Clean Water Advisory Council should detail the public benefit provided by its funding assistance to counties and municipalities.



Mill Creek flooding along Delaware Route 4 in 2003. Photo courtesy of The News Journal



Recommendation B5: The Clean Water Advisory Council should continue to recommend funding projects related to individual and community on-site wastewater systems, when appropriate.

C.

Recommendations to Municipalities and Utilities

Recommendation C1: Counties and Municipalities should review their current impact and other fees related to development of growth-related wastewater and stormwater infrastructure.

Recommendation C2: Stormwater utilities should be created and implemented, when possible, to provide for a consistent, coordinated, clear, comprehensive and funded approach to stormwater management.

Recommendation C3: Delaware's wastewater utilities should be, to the greatest extent possible, self-supporting

Results of the Dialogue on Financing Wastewater and Stormwater Infrastructure

General Background and Need

The Delaware Wastewater Facilities Advisory Council (WFAC) was established in Delaware Code, Title 29, Chapter 80, Sec. 8011 (a) in 1994. The Council was charged to "recommend long-term strategies for financing the construction, repair, renovation, or expansion of wastewater facilities." Since fiscal year 1989, prior to the inception of the Council, and up to fiscal year 1996, the state has provided \$81 million in wastewater utility project funding; \$24.4 million from 1989 to 2006 through the Clean Water State Revolving Fund (SRF) and \$56.6 million from 1996 to 2006 through the 21st Century Fund. To the revolving fund, the federal government has supplied \$122.1 million from 1989 to 2006. Through low interest loans and grants for the construction of wastewater facilities, older systems have been upgraded and thousands of individual septic systems contributing to groundwater contamination have been eliminated.

In 2003, the Council released a position paper on the "Need for a Stable Source of Funds for Supplemental Funding for Future Wastewater Facility Projects." The report identified some \$250 million in wastewater facility needs in the state over the coming six years, of which about

\$150 million in funding sources had been identified. Thus, the Council concluded that there was a need for at least \$15 million per year in additional funding. The Council identified several drivers for this need: 1) an expanding population, expected to grow by 40% by 2030; 2) cleanup necessary to protect Delaware's water bodies and water supplies; and 3) regulatory requirements for setting and meeting the Total Maximum Daily Loads (TMDLs) of various pollutants.

In April 2005, Governor Minner's Task Force on Surface Water Management released their report. This task force, established to address the state's chronic flooding and drainage problems, issued numerous recommendations. Though the General Assembly had allocated over \$57 million from 1996 through 2005 (10 years) through the 21st Century Fund, supporting over 1,100 water management projects, the task force concluded that increasing federal requirements, a backlog of maintenance projects, poor local government planning decisions stretching back decades, multi-jurisdictional responsibilities, and insufficient private assumption of responsibilities for drainage had led to a significant need and funding shortfall. The task force identified \$207.3 million in capital requirements over five years and maintenance requirements of almost \$14 million. The task force identified this need by considering pending and future 21st Century Fund requests from Delaware's three counties, watershed planning needs, tax ditch needs, and other county-identified needs.

The task force also recommended creating a Surface Water Advisory Council (SWAC) to provide guidance and policy advice to DNREC and the Governor, and to provide oversight to potential stormwater utilities regarding drainage, stormwater management, and flood control. The State Legislature took up the SWAC recommendation, passing House Bill 239 in August of 2005. The legislation renamed the Wastewater Facilities Advisory Council to become the Wastewater Facilities and Surface Water Management Advisory Council. The council membership was expanded from seven to twelve members.

Delaware's Wastewater Infrastructure, Funding and Future Funding Needs

Delaware has twenty-three Publicly Owned Wastewater Treatment Works (POTWs). Three are operated by the counties, nineteen by municipalities, and one by an authority.

TABLE 1

Estimated Wastewater Funding Needed and Currently Available 2007– 2011

ITEM	FUNDING NEEDED (Millions of \$)	FUNDING PROVIDED (Millions of \$)	GAP (Millions of \$)
2005 WWC Need Survey	(\$381.2)		
2006 Wastewater Council's Project Priorities List	(\$12.0)		
2007 Wastewater Council's Project Priorities List	(\$127.1)		
Projects Already Funded through 21st Century Fund/other		\$101.7	
Projects funded by specific Publicly Owned Treatment Works (POTW)		\$364.3	
United States Department of Agriculture Rural Utility Service		\$30.0	
Water Pollution Control Revolving Fund (WPCRF)		\$89.0	
TOTAL	(\$520.3)	\$585.0	\$64.7



T A B L E 2

**Estimated Wastewater
Affordability Gap 2007- 2011**

ITEM NEEDED	COST (Millions of \$)
Grant funding to projects in total to meet Delaware's affordability index	\$54.30
Loan funding to assist POTW's with small projects	\$49.50
USDA grants available to assist	(\$20.00)
TOTAL FIVE YEAR GAP	\$83.80
Annualized Over Five (5) Years	\$16.76

**Estimated Affordability Capital Funding
Gap for Wastewater Infrastructure =
\$16.76 million per year**

Flooding along Delaware Route 4 after Tropical Storm Henri in 2003. Photo courtesy of The News Journal



The POTWs accomplish a variety of functions, from collection and conveyance, to treatment and disposal. Over 102 million gallons a day are treated throughout Delaware.

In order to determine financial support (grants, low interest loans, or a combination) for proposed projects, the Council takes into account the affordability of wastewater collection and treatment, on average, for that system's users. The Council has determined that any provider with an affordable user rate of 1.5% of median household income or higher could be eligible for Council assistance.

In making funding recommendations, the Council also takes into account water quality protection, targeted water bodies for cleanup, wastewater facility priorities, and state policy and spending strategies. The Council has established a point system for proposed projects that provides the Council a mechanism for reasoned and clear decision-making. Eligible projects, in addition to those meeting the affordability test, can be any publicly owned wastewater treatment works, any that are implementing an approved national estuary management plan, and/or any that implement the state's non-point source management plan (the Council has recommended funding of "septic"-related projects – on-site wastewater disposal – from time to time). Planning and design as well as equipment purchase and construction are eligible for funding. Operation and maintenance costs are not.

The Council's primary sources for funds are the state and federal contributions to the Clean Water State Revolving Fund. State and Tribal Assistance grants, Department of Agricultural funds (USDA), and limited federal Housing and Urban Development (HUD) funds supplement the SRF. There has been concern for some time that the declining federal annual contribution to the SRF program would be abolished, but this has not happened to date. For example, the President's current budget proposes an almost \$1M reduction to the Delaware SRF for 2007.

The Council's most recent estimate of total funding needed for capital wastewater infrastructure from 2007 until 2011 is \$418.6 million. The estimated funds from various sources to cover these costs total some \$483.3 million, or, a seeming surplus of over \$60 million. (See Table 1)

However, by using the affordability index of 1.5% of median household income, the Council has determined that some \$84 million in grants and loan funding from the State is needed to ensure that Delaware's citizens have access to effective and affordable wastewater treatment. This funding gap is estimated at \$16.8 million per year. (See Table 2)

Delaware's Stormwater Infrastructure, Funding and Future Funding Needs

Unlike the relatively centralized structure of wastewater facilities (with the exception of septic, of course), stormwater facilities are built and maintained by a diverse and diffuse mix of private homeowners and developments, municipalities, counties, and the state's Department of Transportation (DelDOT). Delaware's Tax Ditch program was established in 1951 with the primary purpose of providing agricultural drainage and prevention of flooding. Codes for management of water for resource conservation, municipal drainage were established unevenly, at best, during major new suburban and urban development post-World War II. Only with the landmark 1990 Sediment and Stormwater Law did the Delaware Code require managing erosion and sediment, as well as stormwater runoff, during and after construction of activities which disturb areas greater than 5,000 square feet.

Furthermore, though state and federal regulations call for more integrated watershed planning, little of such planning has been done. Funding has been insufficient to non-existent, the need for capital projects to fix immediate problems has been great, and no watershed-wide jurisdiction has been assumed by any entity. To make matters more of a problem, current stormwater regulations address flow rates but not volume management of stormwater. Thus, a large-scale new development can be in compliance with all regulations, and yet, in a major precipitation event, contribute significantly to flow increases and flooding downstream.

For larger stormwater systems, regulation and action are further along. For large urban systems, with combined sewerage overflow infrastructure (CSOs), the National Pollutant Discharge Elimination System (NPDES) has imposed increasing requirements to separate systems and prevent the discharge of sewerage in stormwater during major precipitation events.

The funding of stormwater projects matches the diverse and diffuse nature of stormwater management. The State spends about \$2.3 million annually on the state's Sediment and Stormwater Regulatory program. The State spends another \$3.2 million for the federal NPDES program. The statewide drainage program, through a combination of state general funds, 3,921 funds, Tax Ditch Maintenance Funds, and county matches, totals some \$3.76 million. The 21st Century Fund provided \$6 million in FY06 for water management projects. DelDOT spends some \$7.5 million



annually on drainage maintenance within its jurisdiction. Additional water management funding comes from the Army Corps of Engineers, the Natural Resources and Conservation Service (NRCS), conservation districts, counties and municipalities. Since the Council just assumed responsibility for stormwater funding oversight, it has not yet established a statewide plan for funding recommendations.

What is the need for future state funding for stormwater infrastructure? The Governor's Task Force, by considering 21st Century Fund requests, watershed planning needs in seventeen priority watersheds, tax ditch needs, other county-identified needs, and New Castle County's emergency funding, estimated the total projected five year capital need was some \$207 million, or annualized costs of some \$41.5 million. This figure does include \$17 million for New Castle County's recent emergency funding for flood mitigation.

Because operations and maintenance funding of stormwater infrastructure is lagging, the task force also estimated annual statewide needs for O&M. Not including DelDOT monies, the Task Force estimated a total of some \$13.7 million in O&M needs annually. This includes current tax ditch costs, additional tax ditch needed funding, county and municipal projected costs, major maintenance on existing stormwater ponds and implementation of new management practices (\$6 million, or almost half of the annualized cost), and program staffing.

The dialogue took these earlier efforts under advisement in considering recommendations. They considered the task force's \$41.5 million annual estimate and also considered a lower number should the New Castle County emergency funding not be included because it is already underway, for a revised annual total of \$24.5 million (\$41.5 million minus \$17 million). The dialogue estimated existing, current capital funding annually from the 21st Century Fund, miscellaneous funding, and current local funding, at \$11 million. Thus, the gap is estimated at between \$13.5 million to \$30.5 million annualized. This range occurs because of the preliminary nature of the research and the uncertainty as to the number of projects the various governmental entities can implement within a given time frame given their limited resources.

Estimated Affordability Capital Funding Gap for Stormwater Infrastructure = \$23.6 million per year



Jeff Bross of Duffield Associates (left) and Council Chair Joseph Corrado (right) listen as DNREC Secretary John Hughes makes a point during the dialogue. Photo by Dee Marvin

Dialogue Recommendations

Given the current situation described in Table 3, the dialogue developed the following recommendations. The recommendations are organized for whom they are intended and in order of priority.

A.

Recommendations to the State of Delaware

Recommendation A1: The State of Delaware should establish a dedicated source of statewide wastewater and stormwater funding. The dialogue recommended that the state should establish a dedicated source of statewide wastewater and stormwater funding. The dialogue explored a variety of funding mechanisms; from an adjunct property tax to the real estate transfer tax to a new statewide water protection fee (specific recommendations are discussed further below). When considering various mechanisms, the dialogue evaluated these mechanisms against such considerations as progressivity, potential federal offsets through income tax deductions, revenue stability, impacts across sectors such as residential, commercial, industrial, and tax exempt, local autonomy, and political viability. These potential mechanisms are discussed further in Table 4.

Recommendation A2: The State of Delaware should rename the Stormwater and Wastewater Advisory Council (SWAC) the Clean Water Advisory Council (CWAC). The dialogue discussed the importance of the overall objective and need for statewide funding of stormwater and wastewater infrastructure which is, primarily, to maintain, restore, and or improve Delaware's waters, be they surface or ground, fresh, brackish or saltwater. Thus, the Council's name ought to reflect the ultimate objective it serves.

Recommendation A3: The State of Delaware should, in consultation with the Division of Public Health, Office of Drinking Water, reallocate \$5 million in allocated funds for drinking water infrastructure for financing wastewater and stormwater infrastructure projects. The legislature has already allocated \$5 million from the 21st Century Fund to help finance, through grants or loans, infrastructure improvement for clean and safe drinking water to the state's drinking water revolving loan fund (known as the DWSRF, similar to the SRF for waste water). However, this money has not been sought by municipalities and/or public

TABLE 3

Stormwater Estimated Funding Needed and Currently Available, Five Year Analysis

ITEM	FUNDING NEEDED (Millions of \$)	FUNDING PROVIDED (Millions of \$)	GAP (Millions of \$)
21st Century Fund Requests (1)	(\$50.00)		
Implementation of 2 completed Watershed Plans (2)	(\$14.78)		
Watershed Planning for 17 watersheds (3)	(\$8.5)		
Airborne Laser Swath (topographic) Mapping (ALSM sometimes called Lidar)	(\$.5)		
Implementation of 8 Watershed Plans (4)	(\$80.00)		
Tax Ditch Needs	(\$8.00)		
County and Municipal Unfunded Needs	(\$16.70)		
Flood Contingency/ Emergency Funding (5)	(\$7.5)		
21st Century Appropriated Funds (6)		\$37.5	
County Funding		\$20.0	
Miscellaneous Funding		\$10.0	
TOTAL	(\$185.98)	\$67.50	(\$118.48)
ANNUALIZED OVER FIVE (5) YEARS	(\$37.20)	\$13.50	(\$23.70)

- Based on 21st Century Fund Requests, rounded off to \$10 million per year for 5 years.
- Assumes 75% of the projects are undertaken within five years due to limitations on staffing, resources, and private property access.
- Assumes \$500K per study. Assumes LIDR (topographic surveys) are already completed statewide.
- Includes estimated DelDOT drainage infrastructure costs.
- Assumes \$1.5 million for emergency funding needed per year. Does not include the one-time New Castle County \$17 million already appropriated to address recent flooding.
- Assumes legislature will continue to appropriate \$7.5 million annually to the 21st Century Fund.

Given the uncertainty in these numbers, especially in comparison to more developed wastewater numbers, the dialogue recommended further analysis and refinement of these estimates.

T A B L E 4

Estimated Annualized Funding Gaps and Potential Annualized New Funding Sources

ITEM*	ANNUAL FUNDING NEEDED (Millions of \$)	POSSIBLE ANNUAL FUNDING PROVIDED (Millions of \$)
Estimated Annualized Wastewater Affordable Funding Gap	(\$16.80)	
Estimated Annualized Stormwater Funding Gap*	(\$23.70)	
Leverage Existing WPSRF Revenue Stream (\$30.0 million allocated over 5 years)		\$6.00
Abandoned Properties Monies		\$5.74
Reallocate DRSRF (\$5 million over 5 years)		\$1.00
Statewide Clean Water Fee		\$9.00
Statewide Builder's Permit		\$7.00
TOTALS	(\$40.50)	\$28.74

* Please note that estimated annual dollars from potential funding sources are general estimates only.

or private utilities that provide drinking water. Thus, the participants recommended releasing this money for the needs estimated for the “other end of the pipe,” that is, for wastewater and stormwater infrastructure.

Recommendation A4: The State of Delaware should optimize leveraging of existing capital funds and Revolving Loan Fund repayment streams.

The State of Delaware manages existing accounts that pool both federal and state dollars for Water, Wastewater and Stormwater. It is possible to leverage the existing money, revenue streams and/or future revenue streams to maximize the use of these funds. This can be executed in various formats:

Leverage Water Pollution Control Revolving Fund: This program consists of federal and state dollars that are used to make loans for wastewater facilities/initiatives. The current annual repayment stream for this program is approximately \$4.5 million a year and continues to increase as more loans are made. These repayment dollars can then be re-loaned out or they may be used to leverage additional dollars through the sale of revenue bonds. If \$3.0 million of the repayment stream is dedicated to debt service, approximately \$30.0 million in additional one-time capital dollars could be leveraged. The bond proceeds would then be added to the existing programs to be re-loaned out for use on approved projects for wastewater and/or stormwater. The Federal EPA endorses the leveraging of the State Revolving Funds when the demand for funds is greater than the capacity of the existing program alone. This process has been used in surrounding states (MD, PA, NY) and in the case of PA and NY their programs have been leveraged several times over because the demand for funds in PA and NY far exceeds the funds that would be available if not for leveraging; Delaware has not seen this level of demand to date. State Bond Counsel (Saul Ewing LLP) has also endorsed this process as optimal by utilizing the State’s AAA Bond rating while not incurring additional costs to the state or adding to its debt load.

Cross Collateralize Water Pollution Control Revolving Fund and Drinking Water Revolving Fund – and any future dedicated funding sources: This option would require the cross collateralization of the Water Pollution Control Revolving Fund as well as the Drinking Water Revolving

Fund loan repayment streams and any additional dedicated funding sources. The Drinking Water State Revolving Fund is currently being managed by a partnership between the DNREC’s Division of Water Resources and DHSS’s Division of Public Health (DPH) and is made up of Federal and State dollars that are used to make loans for safe drinking water projects/initiatives. This encompasses the “Super Revolving Water Fund” concept and would entail the dedication of all or a part of the repayment streams from both programs loan portfolio to be utilized or pledged to support revenue bond sales. These bond proceeds could be utilized to fund approved water/wastewater/stormwater projects. The Federal EPA has issued guidance to the states on cross collateralization of the existing revolving funds. The leverage factor would be a multiple of ten, so theoretically, if the State were to cross collateralize both existing Revolving Fund Repayment Streams equalling \$5.0 million, \$50.0 million could be borrowed in turn to loan or grant back out.

Recommendation A5: The State of Delaware should establish funding that is adequate and predictable from Abandoned Properties collections dedicated to wastewater and stormwater infrastructure. These funds should be, if possible, leveraged for additional capital bonding abilities. The dialogue recommends utilizing a small share of the State’s overall abandoned properties money to help provide additional money for infrastructure development. Utilizing these funds would secure additional funding and reduce the need to create new sources of funds and mechanisms to collect those funds. The dialogue recommends that \$5 million of these funds be dedicated to allocation by the Council.

Table 5, using previous fiscal years’ numbers, captures the amount of monies that would be generated, depending on what percentage of the funds were dedicated to wastewater and stormwater infrastructure. To generate \$5 million each year, for instance, the percentage of dedicated monies would need to be at least 2.5%.

Recommendation A6: The State of Delaware should consider establishing a statewide building permit fee. The dialogue recommended that the State explore, for future consideration, the possibility of establishing a statewide Building Permit Fee to provide an additional stable and dedicated source of funds for wastewater and stormwater infrastructure. The Building Fee would avoid a fee levied on individual residences, as well as other existing real estate.

T A B L E 5

Abandoned Properties Monies and Possible Allocation to Clean Water Infrastructure Funding

FISCAL YEAR	TOTAL ABANDONED PROPERTY FUNDS (Millions of Dollars)	2% (Millions of Dollars)	2.5% (Millions of Dollars)	3% (Millions of Dollars)
FY01	\$163.0	\$3.26	\$4.07	\$4.90
FY02	\$156.0	\$3.12	\$3.90	\$4.70
FY03	\$231.5	\$4.63	\$5.80	\$6.94
FY04	\$302.0	\$6.04	\$7.55	\$9.06
FY05	\$264.9	\$5.30	\$6.62	\$7.95
FY06	\$287.0	\$5.74	\$7.18	\$8.61

The mechanism to determine the exact amount could be structured in a number of ways. As noted above, it could be a small percentage of dedicated funds each year. Or, it could be that the monies are dedicated on the “back end” of abandoned property collections. For instance, a base could be set for a certain amount, for example \$265 million. When abandoned property collections exceeded this amount, monies would be dedicated for clean water infrastructure up to a set amount (for example \$5 million), or, could seek to capture a percentage of the “excess.” The disadvantage of this “back end” approach is that it would not provide a certain, consistent level of funding.



The fee could be based on a percentage of assessed value of the property, once developed, or, as a set amount per builder's permit with an exception for smaller projects (a de minimus exemption). This fee could generate some \$5 million or more annually. For instance, in 2005, approximately 7,000 residential building permits were issued. At a fee of \$1,000 per permit, this would have generated \$7 million, and that does not include commercial, industrial, or tax-exempt building permits issued.

In order for the development community to potentially support this charge, the nexus between the revenues collected and spent would have to show to builders a clear benefit. For instance, if the fees collected were only spent for watershed planning, builders could see at least a future benefit of having more certainty and information regarding stormwater issues, problems, and multi-property impacts as they seek permits and engineer sites. To increase the strength of the nexus, one could theoretically collect the fee on a watershed basis only, ensuring each builder that the fee would be spent on watershed planning in "their" watershed. However, this regional approach would likely increase administrative complexity (and cost).

The fee would have to be fair in that it would be levied against all kinds of development, and not just residential or commercial. If the fee paid for wastewater projects as well, but the Council typically does not fund wastewater projects primarily driven by new development, builders would find the nexus far less compelling. Builders might raise concerns that they were paying not only for new wastewater treatment through local impact fees but also for existing infrastructure through the statewide builder's fee.

The fee could be administered by the various entities that issue building permits (counties and/or municipalities). However, as noted in the Clean Water Fee (Recommendation A7), this would impose additional administrative costs on those entities. Furthermore, since builders must often seek building permits from multiple jurisdictions, a process would have to be in place to ensure the fee was collected and builders were not levied a "double fee" because of multiple permit requirements.



Emergency workers rescue people from their flooded homes in Glenville. Photo courtesy of The News Journal

Recommendation A7: The State of Delaware should consider establishing a statewide Clean Water Fee. The dialogue recommended that the State explore for future consideration the possibility of establishing a statewide Clean Water Fee to provide an additional stable and dedicated source of funds for wastewater and stormwater

infrastructure. Such a fee would “internalize” the external environmental costs imposed by developed property regarding stormwater and, depending on how structured, wastewater. There would be a clear nexus between the fee paid and the resulting benefit (i.e., a clean water fee for clean water).

The fee could be structured in a number of ways. How it is structured would affect the clear nexus between how the fee is levied and how the monies are spent. If the revenues were intended for primarily stormwater projects, the fee could be based on equivalent dwelling units (EDUs). The State would establish an average percentage of an average residential property that is impervious surface (building footprint, driveway, sidewalk, etc.), and levy a fee accordingly. For commercial, industrial, and tax-exempt properties, the fee might be determined based on a more specific calculation of impervious surface on that particular property (or, of properties above a certain size). Since agricultural land is primarily permeable surfaces (i.e., tillable fields, forestlands, etc.), agricultural properties would likely only pay the standard residential fee. It’s estimated that this kind of fee would generate about \$35 million statewide, assuming the average residential charge was \$4 per month. If the revenues were intended primarily for wastewater projects, then a more appropriate fee could be based on a “flush fee.” This fee would add an itemized cost per month to each household’s sewer bill.

Maryland has established such a fee and charges \$2.50 per month to households connected to central sewer systems. Those residences on septic are charged an annual fee of \$30. Commercial, industrial, and tax-exempt properties are levied the fee based on the residential cost. For residential properties only, such a fee (\$2.50 per month/\$30 per year) would generate some \$9 million per year in Delaware.

These fees do pose a number of administrative challenges. How to calculate and administer a “combined” flush and impervious surface fee for funding both stormwater and wastewater would have to be worked out. For “flush fees,” they can be administered appropriately through sanitary sewer districts. However, this does not take into account septic users. A stormwater fee might be administrated by the Counties or even conservation districts. Municipalities or counties could collect this fee as part of their property tax collection. However, this would add an administrative burden and new responsibility to these entities, one they may not wish to have. This administrative burden could be lightened by allocating a portion of the fees collected



back to the collecting entity for administrative costs. In conclusion, there is no one existing single administrative unit which could currently administer collection of these fees, for the reasons stated above.

One particular challenge raised by fees in general, this one included, is that tax-exempt organizations would not be exempt from statewide fees, but might raise concern about being “taxed.” Churches, universities, social service providers, and others, would not likely be exempt from the fee. Furthermore, the question would have to be answered: Are government facilities exempt from the fee, or, also required to pay? After all, state and federal government properties impose the same kinds of environmental costs as any other real, developed property.

The dialogue also identified another challenge regarding a statewide fee. If other jurisdictions, such as cities or counties, move forward in establishing a local Stormwater Utility, the statewide fee could impose a “double taxation” burden. One possibility explored by the dialogue might make Stormwater Utility jurisdictions exempt from the statewide Clean Water Fee, but that utility would have to collect and return revenue to the State equivalent to their statewide share (i.e., the utility would levy a fee, part of which the revenues would flow only to that jurisdiction and part of which would flow back to the state). Given that New Castle County is moving forward with a stormwater utility, any such statewide fee would have to take into account this soon-to-exist, established approach.

Recommendations to the Clean Water Advisory Council (CWAC) and the Department of Natural Resources and Environmental Control

Recommendation B1: The Clean Water Advisory Council should provide for and the Department of Natural Resources and Environmental Control (DNREC) should develop detailed watershed plans for all of Delaware’s waters. The dialogue participants discussed the importance of adequate watershed planning to better understand and determine the adequacy or inadequacy of existing stormwater management within each watershed as well as to better prepare for new growth and development. Thus, the dialogue supports the Task Force’s Recommendation calling for detailed watershed management plans to be developed, under DNREC’s guidance, of the highest priority watersheds by 2010 and all of Delaware’s watersheds by 2015. The dialogue included the annualized cost of



developing the seventeen (17) priority watershed plans over time in its estimate of the stormwater funding gap. The dialogue participants agreed that watershed planning was an essential component of overall stormwater infrastructure development.

Recommendation B2: The Clean Water Advisory Council should increase education on stormwater management. In the dialogue, participants realized that counties, municipalities, developers, and homeowners often do not understand the current stormwater regulations and their implications. As an example, current stormwater regulations constrain flow rates from new development over 5,000 square feet, but not volume management of stormwater in a larger watershed. Thus, a large-scale new development can be in compliance with all regulations, and yet, in a major precipitation event, contribute significantly to flow volumes and flooding downstream. Thus, the dialogue concluded that DNREC, with Council assistance, should engage county and municipal officials, developers and citizens, in greater education about stormwater management, best practices, current regulations and their limitations, and watershed planning. Though not taken up explicitly by the dialogue, this recommendation is related to the Task Force’s Recommendations #9 and #10 regarding updating the 1990 State and Stormwater Law and performance standards for sediment and stormwater practices.

Recommendation B3: The Clean Water Advisory Council (CWAC) should review and refine projected stormwater infrastructure capital and operations and maintenance funding gaps. The dialogue determined that the funding gap estimates for stormwater are preliminary in nature and currently reflect too much uncertainty. Thus, the dialogue recommended that the Council should review and refine the estimates for stormwater capital and operations and maintenance statewide needs, current and project funding, and the projected annualized funding gap as it assumes jurisdiction for this area of infrastructure.

Recommendation B4: The Clean Water Advisory Council (CWAC) should detail the public benefit provided by its funding assistance to counties and municipalities. The dialogue participants stressed the need for clarifying and ensuring the public benefit of statewide assistance. Thus, the dialogue recommended that the Council should detail its current wastewater funding decision criteria and develop



Former New Castle County Executive Tom Gordon (center) and State Sen. Karen Peterson (right) survey the stormwater flood damage in Glenville. Photo courtesy of The News Journal

and detail its stormwater funding decision criteria regarding selecting projects. The dialogue recommended aligning these with the Livable Delaware goals. The dialogue noted that such criteria might include, but not be limited to, projects as they relate to in-fill, capacity, upgrades, regulatory requirements, and environmental protection, property damage, public health and safety, and replacement, new “greenfields” development.

The dialogue identified the following criteria for the CWAC to utilize when funding projects. Funded projects should:

- Ensure a broad public benefit, primarily, to maintain, restore, or improve Delaware’s waters.
- Establish a clear nexus between state-shared cost and state benefit.
- Restore, replace, or improve existing wastewater infrastructure rather than new infrastructure primarily needed to address new growth.
- Avoid, or at least minimize, undue subsidization of local responsibilities or attempts at cost shifting.
- Benefit geographies across the state, from cities to small towns, and from north to south and east to west.
- Meet Delaware’s affordability index to provide a fair and progressive benefit to all of Delaware’s citizens.
- Be prioritized via a rationalized planning process, such as via statewide watershed planning.
- Be balanced vis a vis other wastewater and stormwater project needs.

Recommendation B5: The Clean Water Advisory Council (CWAC) should continue to recommend funding projects related to on-site wastewater systems, when appropriate. Generally, the Council has provided grants or loans for centralized wastewater treatment systems, often, for municipalities or systems seeking to replace individual, septic systems with a centralized system because of water quality problems. However, the dialogue notes that projects that ensure or improve the safe and effective operation of existing septic systems or might replace existing, individually-owned septic systems with on-site, multiple user/community systems, should be eligible for funding as long as cleaner Delaware water is the ultimate objective.

C.

Recommendations to Municipalities and Utilities

Recommendation C1: Counties and Municipalities should review their current impact and other fees related to development of growth-related wastewater and stormwater



infrastructure. The dialogue recognizes and respects the right and responsibility of County and municipal jurisdictions to establish their own impact fees for new development based on best planning practices. At the same time, the State does not want new local development to impose future costs on a statewide basis. Thus, the dialogue participants encouraged counties and municipalities to review their current impact fees and other means used to fund new wastewater and stormwater infrastructure growth, including collection, conveyance, treatment, and disposal, to determine if growth is, in fact, “paying for itself” in regard to this infrastructure.

Recommendation C2: Stormwater utilities should be created and implemented, when possible, to provide for a consistent, coordinated, clear, comprehensive and funded approach to stormwater management. The dialogue concurred with the recommendations regarding stormwater utilities outlined in the Task Force’s final report (Recommendations A5 through 7). The dialogue noted that under existing law, counties, municipalities, or conservation districts could form a stormwater utility. It would require new legislation for sewer districts themselves to form such utilities. The dialogue suggested that the Council would need to manage its operations so that entities who do not create stormwater utilities, or equivalent means for funding and management stormwater within their jurisdiction, are discouraged from seeking statewide funds for activities they could and should otherwise fund through their own means.

Recommendation C3: Delaware’s wastewater utilities should be, to the greatest extent possible, self-supporting. The dialogue participants agreed that wastewater utilities – especially given most (but not all) utility’s rates are below Delaware’s affordability index – should be self-supporting through capable management, efficient operation, and the charge and collection of sufficient user fees. The dialogue participants noted that the affordability index for Delaware (1.5%) is lower than the U.S. Environmental Protection Agency’s (EPA) recommended affordability index of 2% of average median household income, but developed for Delaware’s particular and unique context. The Dialogue noted that a “sufficient” user fee is determined by the Council according to a detailed, consistent analysis. The dialogue did ask the Council to consider depreciation as a potential element of the sufficiency review. ■



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For both scenarios, it is only recommended to leverage when the immediate demand far outweighs existing funding sources. Furthermore, EPA and State Bond Counsel must be involved and approve of plans. And, in addition, EPA rules on program/project expenditures would apply and would require additional program development by the State for the creation of a comprehensive Stormwater Program.





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