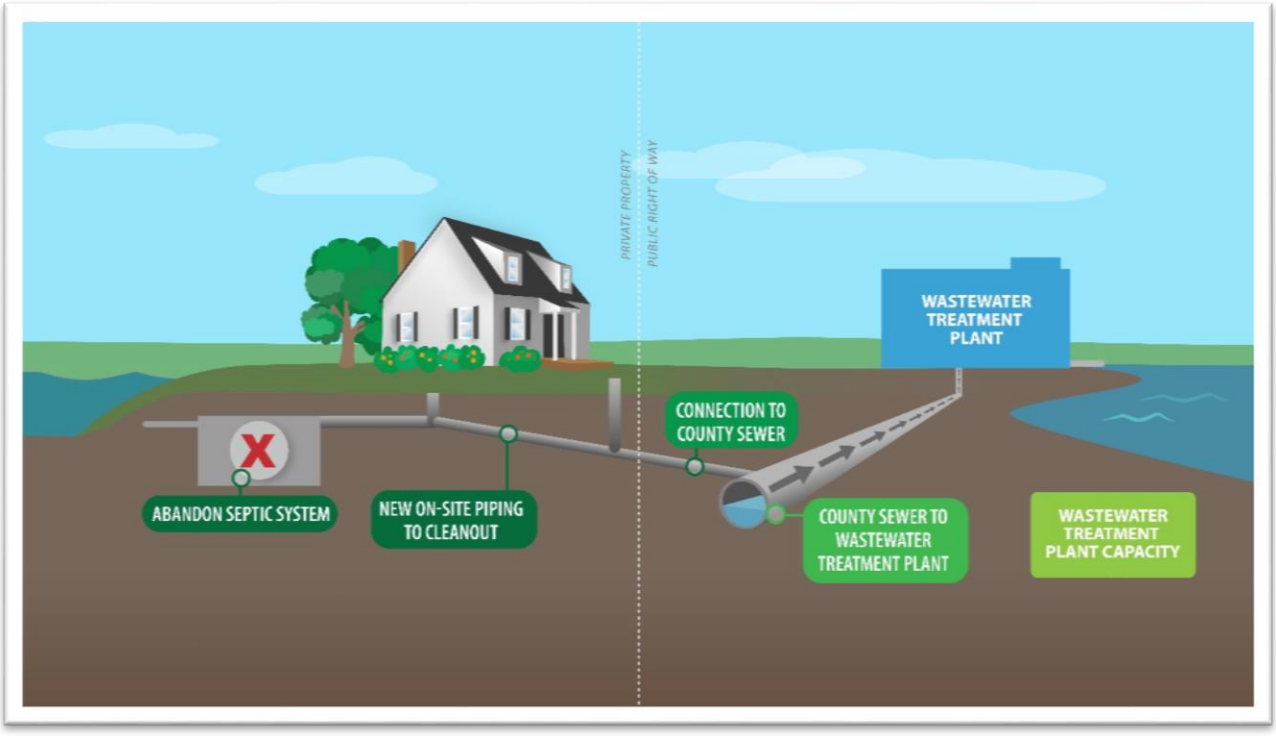
ANNE ARUNDEL COUNTY

SEPTIC TASK FORCE - 2019

FINAL REPORT

APRIL 2020



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1 Background

1.1 Chesapeake Bay TMDL & Watershed Implementation Plan History

Following the creation of the Bay Restoration Fund (BRF) in 2006, Anne Arundel County updated databases identifying existing septic systems, also known as "onsite sewage disposal systems" (OSDS). In 2008 the Department of Public Works (DPW) completed the Septic Strategic Plan, also referred to as the "2008 OSDS Study". This study identified and categorized OSDS by assembling a geographical information system (GIS) database of all 40,000 OSDS throughout the County. This study also identified the estimated nitrogen discharge to the Chesapeake Bay from the OSDS in the County.
In 2010, the Environmental Protection Agency (EPA) issued the Chesapeake Bay Total Maximum Daily Load (TMDL) rule. The Chesapeake Bay TMDL (Bay TMDL) established a "pollution diet" to guide actions to restore water quality in the Chesapeake Bay.[1] Individual states affected by the Bay TMDL were required to submit "Phase I", state-level Watershed Implementation Plans (WIPs). These Phase I plans identified nutrient load reductions by source sectors including wastewater treatment plants, urban stormwater, agricultural, and septic systems.

In Phase II, local governments were provided with pollutant load reduction targets that were consistent with the overall load reductions developed at the state level and were required to develop local-level WIPs for the State's review and approval. The Phase II WIP required significant pollutant load reductions in three major areas: (1) wastewater; (2) stormwater (urban); and (3) septic systems. For septic systems specifically, the Phase II WIP proposed a 46% reduction in nitrogen loads. Anne Arundel County's Phase II WIP was submitted in July 2012.[2]

Wastewater Program Status

The County's Phase II WIP included wastewater nutrient reductions through the implementation of enhanced nutrient removal (ENR) and the County owned water reclamation facilities (WRFs). After investing in over $250 million, all ENR treatment plant upgrades are complete and operational as of 2017. WRF performance in the first half of 2019 is well below nutrient allocations.

Stormwater Program Status

The County's Phase II WIP included a high level of nutrient reductions associated with stormwater discharges. Subsequent to the issuance of the WIP, the state has issued a Municipal Separate Storm Sewer Systems (MS4) permit that requires certain stormwater treatment requirements. The County has over $250 Million programmed in the capital improvement plan (CIP) to complete watershed protection projects to meet the requirements in the MS4 permit. The County is on track to meet the 20% impervious area reduction through stormwater improvements alone (with no trading) by 2024. This is expected to meet the requirements of the next MS4 permit. However, it is expected that successive five-year permit cycles will require more impervious area treatment and significantly more investment.

[1] https://www.epa.gov/chesapeake-bay-tmdl
[2] https://mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/WIPPhaseIICountyDocuments.aspx

Septic Planning for WIP II

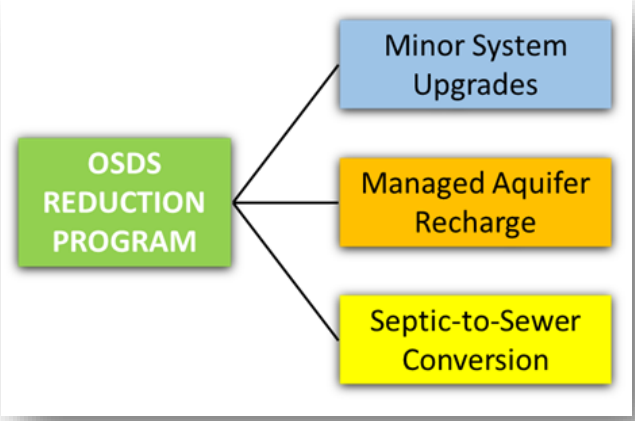
In the County's Phase II WIP, approximately 20,000 properties currently served by septic systems were identified that could be connected to the public sewerage system. The preliminary estimates for the entire program approached $1.5 billion and would represent a significant increase in DPW's assets. Extending or providing public sewer would require an additional 80 sewer pumping stations, 65 miles of force main, 88 miles of low pressure sewer, and 216 miles of gravity sewer. With this amount of infrastructure, it is likely the original $1.5 billion estimate is low. This potentially significant capital program was the focus of the Septic Task Force, which was originally convened in 2016.[3]

1.2 Phase III Watershed Implementation Plan (WIP III) Update

MDE published the Phase III WIP on August 23rd, 2019.[4] In it, MDE documented the strategies and programs that Maryland and local jurisdictions will put into place following the 2017 Midpoint Assessment and the Chesapeake Bay model update. The WIP III supersedes WIP II, and revised the pollutant sectors, baselines, and target reductions.

Overall the WIP III revisions resulted in a decrease in County's septic reduction target. The Phase III WIP goals are based on an approach whereby the individual sector goals are secondary to the integrated total goal.

The County is developing a long-term strategy to meet both the WIP III requirements and maintain nutrient loads into the future beyond 2025. Future nutrient discharges are expected to be stressed by both population growth and climate change. To assist in the strategic planning of the nutrient reductions, the County hired an OSDS Program Manager (HDR) in September 2018.



During the initial phases of the strategic planning effort, the current progress was reviewed, new concepts and alternatives were explored, and integrated water strategies were evaluated to meet overall nutrient goals. Based on a collaborative decision making process, the County has developed the framework of an integrated program consisting of three program elements: Minor System Upgrades (MSU) to reduce nutrients from small community based systems, Managed Aquifer Recharge (MAR) to reduce nutrient discharges from existing WRFs while also improving water supply resilience, and an OSDS Connection Program to reduce nutrients from septic systems. With this integrated approach and the revised targets identified in

[3] https://www.aacounty.org/departments/public-works/septic-task-force/index.html
[4] https://mde.maryland.gov/programs/Water/TMDL/TMDLImplementation/Pages/WIP-3-Vision.aspx

WIP III, the total number of OSDS conversions required has been reduced from 20,000 by 2025 to approximately 5,000 to 6,000 by 2050.

2 Septic Task Force and Mission

To assist with developing appropriate policy approaches, DPW convened a Septic Task Force ("Task Force") in late 2016 to assist in the development of a septic conversion program that aimed to convert up to 20,000 septic connections. In researching similar efforts in other regions of the country, a wide variety of approaches were found that could be used to implement a large-scale program to connect OSDS to public sewer and reduce nitrogen loads. These differences were considered reflective of local and/or regional issues or concerns and highlighted that there was no "one size fits all" approach to this type of program. The efforts of the first phase of the Task Force were summarized in a June 2018 report, which identified the consensus recommendations of the Task Force and also individual recommendations of separate working groups. Beginning in the latter half of 2018, DPW began working with the OSDS Program Management team, exploring additional ideas as alternatives to septic connections, and assessing the impact of the new WIP III loads.

In July 2019, the Task Force was reconvened to discuss changes in the scale of the program, financial plan, and policy development following the WIP III update and the development of the integrated planning approach.

The reconvened Task Force mission was identified as the following:

- Confirm prioritization of program areas
- Guide DPW's development of a conversion policy framework
    - Incentives
    - Subsidies
    - Funding
    - Public Outreach
- Provide input on draft legislation/code to be introduced Fall 2019 and by doing so preliminarily define those things that will need to be addressed by DPW Policy and Procedures

3 Task Force Members

Task Force members represent a cross section of the community and area from different backgrounds to provide varying perspectives. The task force was supported by Anne Arundel County Government and HDR program management staff. The Task Force Members are identified below:

<u>Community Representatives</u>

Jerry Pesterfield	Heritage Harbor
Lloyd Lewis	Mayo community
Jesse Iliff	Arundel Rivers Federation
Jim Doyle	Edgewater Beach community
Sally Hornor	AA Community College/Severn River

Jeff Holland	West/Rhode Riverkeeper
Ken Mark	Edgewater Beach community
Eric Devito	Stone Matteis Xenopoulos & Brew, PC
Eliot Powell	Whitehall Development
Ben Wechsler	Linowes and Blocher LLP

Anne Arundel County Representatives

Jessica Haire	County Council – District 7
Matt Pipkin	Legislative Assistant to District 7
Matthew Johnston	Office of the County Executive – Environmental Policy Director
Chris Phipps	Department of Public Works – Director
Karen Henry	Department of Public Works – Assistant Director
Erik Michelsen	Department of Public Works – Watershed Protection and Restoration
Chris Murphy	Department of Public Works – Engineering
Chris Saunders	Department of Public Works – Utilities
George Heiner	Department of Public Works – Engineering
Kim Cluney	Department of Public Works – Business and Financial Services
Ed Peters	Department of Health – Sanitary Engineering
Albert Herb	Department of Health – Sanitary Engineering
Cindy Carrier	Office of Planning and Zoning – Long Range Planning Division

Smaller working groups were established to hold focused discussions on key topic areas. In the first phase of the Septic Task Force meetings, Fiscal, Policy, and Land Use Working groups were established. For the second phase of meetings, the members of the Land Use Working Group were merged into the other groups. The revised working groups are identified below:

FISCAL WORKING GROUP	POLICY WORKING GROUP
Eliot Powell	Jerry Pesterfield
Jesse Iliff	Lloyd Lewis
Ken Mark	Sally Hornor
Jerry Pesterfield	Jim Doyle
	Jesse Iliff

4 Meetings

The Task Force met collectively in four meetings from July to October 2019. The working groups were held in between the Task Force meetings. The meetings were held on the following dates:

Meeting Date	Topics Discussed
July 22, 2019	Task Force Meeting 1: Introduction, recent progress, prioritization of program areas, lessons learned from other septic conversion programs, customer survey
August 06, 2019	Fiscal Working Group Meeting 1: Willingness to pay model, cost components, sewer connection cost and financing test case
August 22, 2019	Task Force Meeting 2: Update from Fiscal Working Group meeting, alternative incentive and deferment strategies, draft policy framework

Meeting Date	Topics Discussed
September 5, 2019	Policy Working Group Meeting 1: Key tenets for program success, process for prioritizing connection areas, special cases, existing petition process
September 19, 2019	Task Force Meeting 3: Update from Policy Working Group, entry requirements to program, draft policy framework
September 24, 2019	Policy Working Group Meeting 2: Draft policy framework, review existing County codes, proposed code revisions
October 08, 2019	Fiscal Working Group Meeting 2: Preliminary willingness-to-pay model results, County funding impacts, alternative funding sources
October 17, 2019	Task Force Meeting 4: Survey and willingness-to-pay results, County funding impacts, proposed legislation

Each collective Task Force meeting covered a general topic where DPW staff presented relevant subject matter, highlighted what was considered to be important information, and facilitated a general discussion.

Refer to Appendices A - H for Task Force and Working Group Meeting Agendas, presentations and minutes for details.

5 Task Force Discussion Summary

The collective Task Force and separate Working Groups discussed key questions related to policy development and associated financial impacts. Discussions from Working Group meetings were presented in subsequent Task Force Meetings to inform the full task force and to assist in making comprehensive decisions. The key insights provided by the Septic Task Force, as well as the recommendations listed in Section 6 will be used to define program parameters, policies and procedures, etc. A summary of the meetings is as follows[5]:

5.1 Septic Task Force Meeting 1

The first Task Force Meeting reviewed recent progress, discussed upcoming Task Force Meetings, reviewed lessons learned from other septic to sewer connection programs, discussed the prioritization of program areas, and previewed the public survey. WIP II to WIP III target revisions were discussed, and an integrated strategy was introduced to reduce the overall size of the conversion program. Task Force members provided feedback on the prioritization criteria and the customer survey.

5.2 Fiscal Working Group Meeting 1

The first Fiscal Working Group Meeting reviewed financing variables and homeowner fees under the existing petition process, and discussed potential fee structures for the new program. State and other funding sources were examined as well, including Bay Restoration Fund (BRF), FEMA, and local funds. The Fiscal Working Group provided feedback on the use of Readiness-to-Serve charge and sunset provisions; indicating that a readiness to serve charge would not be a desired approach. The Fiscal Working

[5] Meeting minutes and presentation materials are available at the following location: https://www.aacounty.org/departments/public-works/septic-task-force/index.html

Group also discussed the potential deferral policies and possibility of a 40-year bond term. Lastly, an example neighborhood was modeled financially with the goal of implementing a like-sized program each year for 30 years.

5.3 Septic Task Force Meeting 2

The second Task Force Meeting discussed updates from the Fiscal Working Group, examined alternative incentive and deferment strategies, and presented draft policy framework. The probabilistic cost model based on assumed levels of willingness-to-pay (WTP) and the Utility Fund's long term financial projections were presented. A breakdown of the existing petition process was explained, along with discussions of the proposed draft policy framework.

5.4 Policy Working Group Meeting 1

The first Policy Working Group Meeting established key tenets of success and the voluntary/mandatory nature of the program. The Group discussed simplifying the cost to be understandable and equitable in future public outreach campaigns. Three approaches for the program including an open process, a pilot program, and a County-selected program were presented and considered by the Working Group An approach using deferment for some areas, and an open application process were favored. The Group debated on whether the proposed legislation needed to be in phases and whether the new connection process should be a separate code section or be structured as modifications to the existing petition process.

5.5 Septic Task Force Meeting 3

The third Task Force Meeting reviewed updates from the Policy Working Group Meeting including the open application process and deferment for certain areas, such as the Critical Area and onsite wastewater management problem areas (OWMPAs).[6] A draft policy framework for the open application process was presented and a flow chart was shown of how the process might work. Costs and subsidies for top connection areas and a program outreach map were presented. The procedure was explained in detail and the Task Force provided feedback and discussions. An additional Task Force goal was identified, for guiding development of draft legislation that would be introduced in the Fall of 2019.

5.6 Policy Working Group Meeting 2

The second Policy Working Group Meeting started with a review of the details of the existing petition process, areas of improvement, and then examined existing County codes related to the conversion program. This discussion included topics such as the extension on initiation by DPW, the existing deferment policy, and a possible revision of the existing Front Foot Assessment policy. The group then proceeded to review draft legislation for the new program, including exemptions for OWMPAs, subsidy amount and eligibility, and deferment term.

[6] OWMPAs are defined in the County's *Water and Sewer Master Plan* as areas that show indication of operational problems with septic systems. These areas have problems such as high water table, small lot size, impermeable soil, or excessive slope.

5.7 Fiscal Working Group Meeting 2

The second Fiscal Working Group Meeting discussed some initial feedback from a public survey that was distributed in August of 2019, and in particular the willingness-to-pay (WTP) model with preliminary customer survey results. The Group then reviewed connection costs and financing variables, and Utility Fund's cash flow under varying subsidy amounts over a long term period. It was noted that when viewed over an extended time frame, deferments and some level of subsidy may be revenue neutral. Deferment and balloon payments including how a balloon payment would be made and the ability to make deferments flexible were discussed. Lastly, the Group discussed possibilities for alternative funding sources.

5.8 Septic Task Force Meeting 4

The fourth Septic Task Force Meeting began by discussing survey results, and the revised WTP model. Next the Task Force reviewed several deferment and subsidy combinations and the financial sustainability of those programs over 30 or 40 year periods. The Task Force also discussed the possibility of providing income related subsidies, including increased subsidies for low income residents or reduced subsidies for high income residents. Graphs illustrating WTP results for different voting thresholds and income levels are included Figures 2 and Figure 3.

The proposed deferment legislation language was presented with feedback from the second Policy Working Group, and the Task Force continued to discuss the policies and procedures.

6 Recommendations Summary (2019)

The summary below provides the guidance and recommendations from the second phase of the Task Force and the respective working groups.

1. New Application Process for County-Directed Program – The Task Force determined that the existing petition process for connecting to public sewer would not fulfill the needs of the broad program that will be designed to meet Total Nitrogen reduction goals. Existing policy features were discussed, as well as desired changes that should be addressed in creating a new program. The Task Force agreed on a set of Key Tenets that would anchor policy decision making and guide outreach efforts:

    - Improve water quality, mitigate public health risks, and enhance climate change resiliency
    - Provide a program that is affordable, fair, and understandable for residents
    - Create an adaptable and financially stable program for DPW and the County
    - Develop an Outreach-driven voluntary program with mandatory connection once community votes ("voluntary-mandatory")

    Additionally, DPW recommended several key components in defining a fair and implementable program:

- Utilize agreed upon prioritization criteria that includes nitrogen reduction and OWMPA
- Streamline the number of votes and public meetings for residents
- Allow flexibility for DPW to modify areas based on sound engineering practices
- Provide County with a risk-free "off-ramp" should costs greatly exceed the budgets
- Provide flexibility to adjust approaches in the future to enhance program efficiency and take advantage of the more measured approach to the program.

2. Prioritization of Septic to Sewer Connections – In order to increase the chances of program success, and to steer DPW's focus during implementation, a set of prioritization criteria was developed. The following criteria should be used in evaluating which communities offer the most benefit in connecting to public sewer:

    - Number of parcels in OWMPAs
    - Number of parcels within the Chesapeake Bay Critical Area
    - Proximity to existing sewer infrastructure
    - Total estimated project cost per pound of nitrogen removed

    Additionally, sea level rise could be considered as a prioritization criteria. This could be interpreted as the number of parcels where septic systems would be impacted by up to five feet of inundation from sea level rise. Prioritization criteria will be weighted by DPW, and may be updated throughout program implementation as part of an adaptive management strategy.

3. Existing Petition Process to Remain, but with Modifications – The Task Force identified a number of shortcomings with the current petition process for connecting to the public sewer, which is described in Section 13-5-303 of the County Code - "Extension on Initiation by Property Owners". DPW wishes to preserve the ability for communities to connect to public water and sewer, even if a community is not a part of the new program. In developing the new program, changes to County Code and/or DPW Rules and Regulations will be required. Some of these changes will improve the current process with respect to eligibility to defer costs, a simplification of the voting process, and the ability of DPW to modify proposed project boundaries.

4. New Program to be Voluntary/Mandatory – The Task Force agreed that the new program should continue the current approach which includes voluntary participation on the community level initially, with mandatory individual connections for all property owners within a community that has voted to connect to public sewer. The Task Force expressed an interest in raising the voting threshold to a higher figure, such as 67%. However, information from the WTP analysis as shown in Figure 2 indicated that such a threshold would require a monthly payment below what was considered attainable. For this reason a simple majority vote (50% +1) should be retained, which is expected to increase the number of communities choosing to participate as compared to a higher vote threshold.

5. Open Application Program – The process for communities to apply to the new septic conversion program should not be limited to a targeted group of communities, but rather be open to broadly defined eligibility. Policy features should include:

    - Ranking of applications received by prioritization criteria
    - Criteria are transparent, published
    - Applications are received over a stated duration, and the application process can be re-opened on an annual or multi-year basis to develop a list of sewer connection projects
    - DPW has the right to review and modify proposed sewer connection areas as needed to provide for practical implementation.
    - DPW will determine how many applications to accept in a given year based on the number of property owners that will be connected and the capacity of DPW to fund subsidies and deliver the projects. Generally, DPW will target 200 septic conversions per year, in order to meet average annual goals towards long term nitrogen reduction.

6. Assessment Charges Based on Property Tax Account or Equivalent Dwelling Units (EDUs) - The current front foot assessment charges that recover the County's cost to construct public sewers should be changed to a property or EDU basis. The Task Force discussed the inequity of larger properties with a single dwelling, or properties with a larger frontage due to irregular geometry, as being assessed a higher share of costs than a single dwelling on a narrow lot.

7. Deferment of Septic Conversion Costs Offered More Broadly - The current exemption clause in the County code (Section 13-5-815) that covers charges for water and sewer extensions is limited to elderly property owners with low income, and disabled property owners and is a full deferment.

    The Task Force agreed that expanding eligibility for deferments would be an acceptable approach to reducing monthly costs to a homeowner. A deferment policy should consider the following[7]:

    - Eligibility for households in the Chesapeake Bay Critical Area, Onsite Wastewater Management Problem Area, and an area to be designated in the County's Master Plan for Water Supply and Sewage Systems as a "Septic to Sewer Conversion Area", or in an area adjacent to one of these areas. Eligibility should include homes with existing public sewer service available.
    - Flexibility to defer up to 50% of all charges (user connection, capital facility connection, assessment)
    - Deferred charges paid off with a lump sum payment at the end of assessment term or upon property transfer, whichever comes first. Maintain flexibility to spread the lump sum payment over five years to ease the burden on the property owner.
    - The payback period does not need to match the County's 30-yr bond period. A 40 payback period would lower monthly payments, but raise the overall interest paid compared to a 30-yr payback period.

[7] Bill 90-19 regarding the deferment of charges was passed by the County Council on December 20, 019.

8. County Subsidy to Reduce Property Owner Costs for Septic Conversion – The Task Force discussed that the high cost to property owners for connection to public sewers may continue to prevent sewer extension projects from moving forward. After considering the WTP evaluation, even with grant funding from the MDE's Bay Restoration Fund (BRF), the resulting up front and/or monthly costs are expected to be too expensive for many owners. A County subsidy should be used to further reduce septic conversion costs for the property owner. An offer of subsidy should have the following features:[8]

    a. County subsidy will capped as a contribution of up to 25% of total project costs. This amount is believed to be financially sustainable within the Utility Fund. The Director of DPW will establish actual subsidy costs through policy decisions.

    b. In a given application period, the subsidy will be uniformly applied to all project areas up to a certain amount. Within a project area it should be the same for each residence. The actual subsidy offered during a given sewer extension application period may vary from year to year depending on funding availability or other factors.

    c. Subsidy will be used to lower the principal amount of project costs, which will be financed.

    d. Any future legislation that adjusts or modifies subsidies within a project area, such as increased subsidies for low income households, or for properties with lower value, should be consistent with the State's BRF approach.[9]

9. Impact of Subsidy on DPWs Financing Structure – In weighing the appropriate offer of a County subsidy, the Task Force discussed the use of the Enterprise Utility Fund and the General Fund. It was recognized that financing from the General Fund may be a less stable or consistent funding source from year to year, as compared to the Enterprise Fund. DPW reviewed the cash flows of various subsidy amounts over a 30-year program life, and determined that some scenarios have a more manageable cash flow than others. In developing a maximum subsidy, or in evaluating the actual subsidy offered throughout the life of the program, the following considerations should be given attention:

    - Cash flow management is of concern, such that excessive annual debt service costs or revenues are not desirable (program seeks to be "revenue neutral"). Refer to Attachment 2 for graphs that illustrate the projected impact to the Utility Fund balance over the life of the project. Figures A2-1 and A2-2 illustrate a 25% County subsidy ($16,500) and a sustainable, positive cumulative cash flow. Figures A2-3 and A2-4 illustrate a higher subsidy amount with a non-sustainable, negative cumulative cash flow.

[8] Bill 95-19 regarding subsidies was passed by the County Council on February 3, 2020.

[9] An amendment to Bill 95-19 was included to limit the amount of subsidy based on exceeding a high income threshold set by the State, which is currently $300,000 household income. The subsidy for these households is to be one-half that offered to other households.

- Planned rate increases already account for funding of a Septic-to-Sewer Conversion program
- DPW will set the financing rates for assessments consistent with existing policy.
- It will be necessary to monitor the program as it develops to update assumptions such as borrowing rates and connection costs to ensure the program is able to maintain a sound financial footing.
- The program will need to maintain flexibility to make adjustments as warranted. This may mean that subsidy levels need to differ between program cycles in order to maintain the goal of long term sustainability.

10. Customer Willingness to Pay – DPW evaluated the willingness to pay for sewer improvements through a customer survey. Survey respondents included property owners in different parts of the County, and included septic tank owners as well as residents currently served by public sewer.

    - Based on septic survey results, overall median willingness to pay is $72.50/month. It is assumed that this includes the monthly utility usage costs.
    - Program should attempt to reduce the homeowner contribution to as close to this amount as feasible in order to increase the likelihood of program success.

11. Public Outreach is Critical to the Success of the Septic Conversion Program – Task Force community representatives feel that many people do not understand how their septic system functions or the maintenance requirements. Based on the results of the customer survey, many opportunities exist to educate the public on the performance and environmental impact of septic systems, as well as to clearly explain the goals and application process for the septic conversion program. Features of the public outreach campaign should include:

    - A project webpage should include a map for interested property owners to check potential for eligibility.
    - "Keep it simple"; with clear pricing information. One inclusive price if possible.
    - Education campaign must be implemented to communicate septic tank operation and impacts on the environment.
    - May increase customer willingness to pay by improving the understanding of water quality issues associated with septic systems.

12. Alternative Funding Sources Should be Considered – The Task Force recognizes that existing BRF funding and a County subsidy may not be enough to guarantee the success of the program. Other funding sources were discussed and should be pursued:

    - Additional BRF grant funding through the Septic Fund and/or the Sewer Fund, and low interest loans through the State's Water Quality Revolving Loan Fund.
    - Federal Grants through either FEMA (Pre-Disaster "BRIC") or USDA.
    - Community Development Banks, which could be an alternative to the County financing of deferments.

13. Additional Charges or Fees Not Recommended – The Task Force considered additional charges that could be used to provide funding to offset septic conversion costs. A "readiness-to-serve" charge would not be applicable because connection will be mandatory for communities that vote yes. A septic or nitrogen impact fee for existing or new septic property owners is not recommended, as this charge could be viewed as punitive and could result in resources being directed at less cost effective locations.

14. Sunset Provision Not Desired in Proposed Legislation - Future councils may update legislation if change is desired.

7 Future OSDS Conversion Implementation Efforts

Based on the results and recommendations from the recent Task Force, Working Groups, WIP requirements and the County's integrated approach to TMDL compliance as described herein regarding the proposed septic to sewer connection program, the following program implementation considerations and efforts have been identified. These considerations have been organized into four different groups Policies and Procedures, Design and Construction Program Development, Public Outreach and State and County Coordination. Figure 1 below shows these groups.

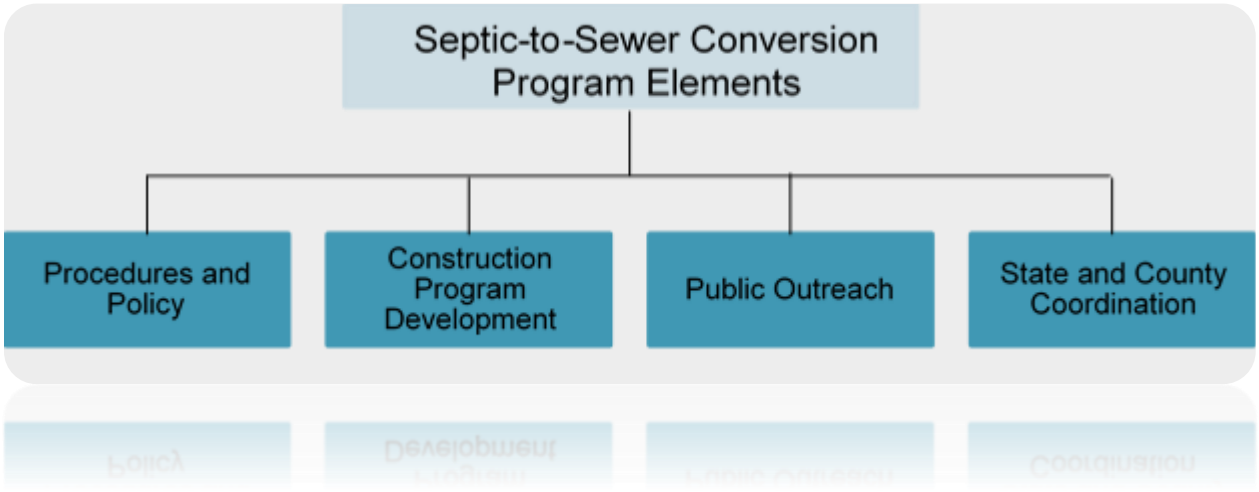


Figure 1 - Septic-to-Sewer Conversion Program Elements

7.1 DPW Policy and Procedures

The proposed implementation approach is for the DPW to direct and administer the Septic-to-Sewer Conversion program. This program will require the development of new and revised policies and procedures in order for DPW to effectively execute the program. The majority of these policies and procedure considerations are a result of efforts by the Task Force and Working groups as described above. It should be recognized that this program may require policy and procedures changes/updates in other

County departments outside the direct control of DPW, such as County Finance, Planning and Zoning, Legal, Purchasing, County Health Department, and others. These efforts are summarized herein where appropriate.

7.1.1 CONNECTION AREA APPLICATION, RANKING AND VOTING PROCESS

There are a number of policy and procedural considerations for DPW regarding the proposed application process as recommended in Section 6 above, including the following:

- Connection Area Definition - program eligibility map or database list that is transparent, quantifiable, and defensible
- Procedures for application submittal process including community outreach, commitment requirements at the time of application, application revisions, and others
- Modification of proposed connection areas at the recommendation of DPW
- Program timeline, including initial outreach prior to application received, timeline for County review, and timeline for community acceptance
- DPW package application and prepare community for vote – "yes" or "no" to proposed program
    - Procedural Meetings (Internal DPW and with Community) During the Applications Process – number, frequency, etc.
    - Timeline and milestones for the application process
- Policy for special cases, including vacant lots, commercial properties, and properties currently served by Nitrogen Reducing Units (NRUs)

7.1.2 PROGRAM AND PROJECT FUNDING

DPW will need to annually budget for the Septic-to-Sewer Conversion Program in the Capital Improvement Program (CIP). The policy and procedures for the annual CIP update process is well established and this program will fold into that process. This program will present some additional funding efforts on the part of DPW, primarily applying for State Revolving Loan, and other program, annually. Several additional considerations will include the County's internal finance department requirements and role in this process. It is anticipated that the County will enter into a long term finance agreement with MDE with regard to the program use of Bay Restoration Funding that will also be considered. If this agreement is similar to prior BRF agreements, it will stipulate the parameters and timing for use of those funds.

- Annual budgeting process - County's CIP Program, determine how engineering and construction to be budgeted
- Funding grant and loan application process, frequency, cycle, and procedures.
- Setting of subsidy based on availability of funding and other program factors. Adjustment of subsidy over a program cycle.
- Procedures for dealing with property owner onsite costs, considering state funds, private financing, or County-funded.
- Bond term and payback period
- Percentage of project "cost overage/overrun" to be absorbed by the County without getting approval from homeowner and/or County Council

- Identify simplified approach to property owner costs while working within the existing petition process framework.
- Confirm which fees are financed and which fees stay with property on transfer.
- Identify payoff procedures for deferments at the end of the assessment period, including consideration of multi-year payback
- Define "Total Project Costs" - Assessment/subsidy adjustment based on final actual project cost

7.2 Design, Permitting and Construction Program Development

DPW will need to establish the program for design, permitting, and construction of septic to sewer connection projects that is practical and implementable, while staying within the guidelines of County Purchasing and regulations and policies. Alternative delivery methods for projects need to be examined to determine the most cost effective, time efficient approach or range of approaches to design, permit, and construct projects. An effort will be made to have a flexible and nimble system for executing projects. The following is a preliminary list of considerations:

- Establish the range and guidelines of project delivery methods, their respective schedules from start to finish, and project requirements/scope which lend to one delivery method over another.
- Adopt and/or modify purchasing codes to allow for these alternative methods of delivery.
- Develop "project packaging" options and approaches
- Determine design resources and approach for contracting and delivering project designs, work with existing contracts, new contracts, etc.
- Establish new/alternative permit approach to assist in expediting permits cost effectively, i.e. blanket vs. individual project permits and mitigation banks.
- Construction administration, inspection, start up and testing and commissioning of new systems.

7.3 Public Outreach

Public Outreach will be a critical component of a successful Septic-to-Sewer Conversion policy. As indicated above in Sections 5 and 6, public outreach efforts to date have included public surveys and outreach effort. DPW will need to identify the preliminary communications strategy and messaging that will be implemented as this program moves forward.

- County Septic-to-Sewer Conversion Area Outreach and Guidelines and process/timeline throughout the Project application/Petition Process and Project Implementation.
- Engineer and contractor outreach
- Coordinate public outreach efforts with the DPW Customer Relations

A significant parallel effort is on-going to continue to develop the public outreach program for this program that is transparent, inclusive, timely and informative/educational.

7.4 Coordination with State and County Agencies

During this most recent Task Force effort, assumptions were made with regard to the policy of several key State and local agencies that will have approval and/or regulatory authority over this program. The next steps with regard to coordinating with State and local agencies involves actively engaging those entities to determine the policies and procedures that will impact the implementation of this program. Many of these activities and the subsequent agreements will be needed for funding provisions as well as to meet regulatory/statutory requirements. The following is a preliminary list of the agencies and their role/approval authority. A strategy needs to be developed and implemented for each.

- Maryland Department of Planning – Revise/Update Priority Funding Area and determine any land use changes that result. Coordinate with County Department of Planning and Zoning. Engage the Smart Growth Committee
    - Vacant lots
    - Upzoning and Rezone capacity
- Maryland Department of the Environment
    - BRF Funding and Construction Reporting
    - Revolving Loan Program
    - Prior funding for BATs – new funding
    - Project permitting
- Anne Arundel County Health Department
    - OWMPA boundary definition
    - Need for County Health Department to certify problem areas
- Chesapeake Bay Critical Area Commission (CBCAC) Approvals - Projects in the Critical Area normally takes longer to obtain permit, working with the Commission to inform them of the goals and benefits of the program may assist with developing a streamlined approval process.
- Corp of Engineers/MDE Wetlands/Waterways – blanket
- SHA/County roads
- County Development Review Process for Projects – streamline the process

7.5 Task Force Conclusion

The Task Force reconvened for a final meeting on January 21st, 2020, to provide updates on the proposed legislation and to receive feedback. The key recommendations from the Draft Task Report were reviewed and it was agreed that sea level rise could be made a secondary criteria with the primary criteria being those listed in the recent legislation. It was also noted that for the presentation, figures related to the willingness-to-pay summary (WTP) were used, and it was suggested that these be added to the report.

Subsequently, there was a discussion regarding the amount that would be required to be paid by a homeowner in different "payoff" scenarios. It was agreed that this information needed to be summarized and shared, but since there are different scenarios, the OSDS Program Management Team would need to review the options and summarize them. Additionally, it was noted that the report should indicate that eligibility for deferments and subsidies should include homes with existing public sewer service available.

Following this, an overview of the two pieces of legislation that had been proposed (and subsequently passed) was provided. It was noted that beginning in January 2020 the OSDS Program Management Team would commence with developing the detailed processes and procedures for implementing the program.

A brief overview of the intended public outreach effort was provided, and it was noted that although there would not be any additional formal Septic Task Force meetings, members may be contacted in the future to solicit opinions and suggestions on elements of the program.

Finally, it was agreed that the report revisions discussed during the meeting would be incorporated into a Draft Final Report and re-issued to the Task Force Members. Following a review period, the report will be finalized and posted to the Septic Task Force website.

Attachment 1 – Willingness-to-Pay Summary

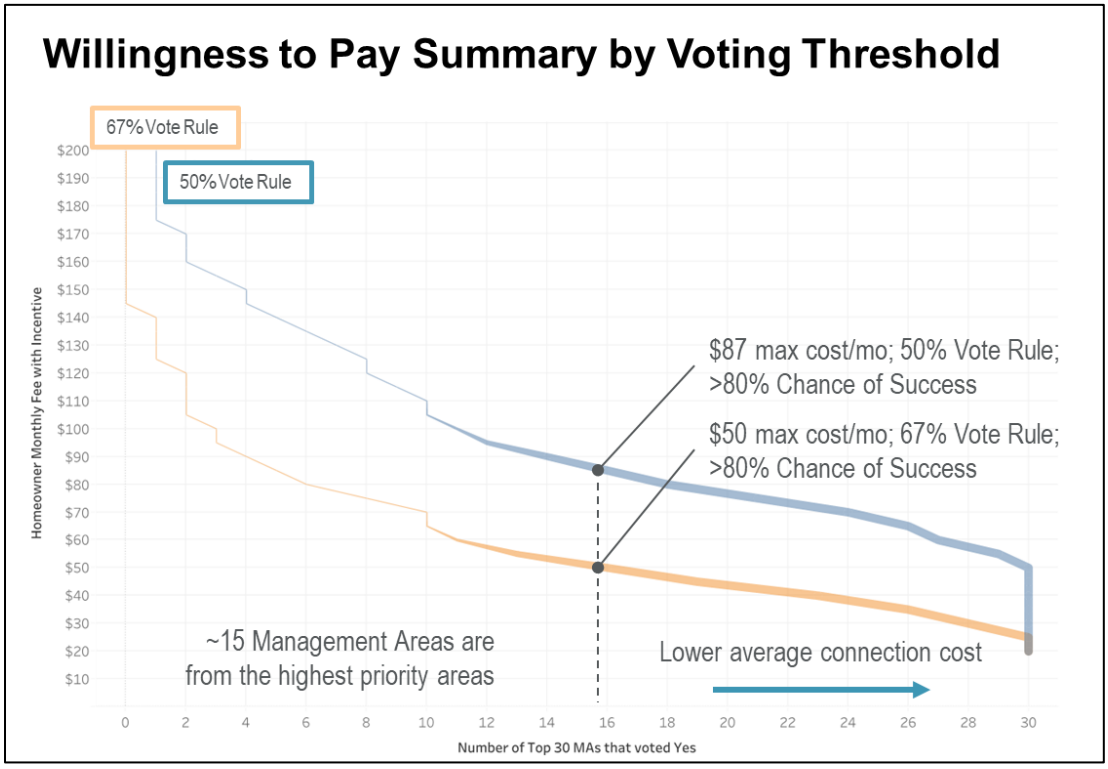


Figure A1-1 Willingness-to-Pay (WTP) by Voting Threshold

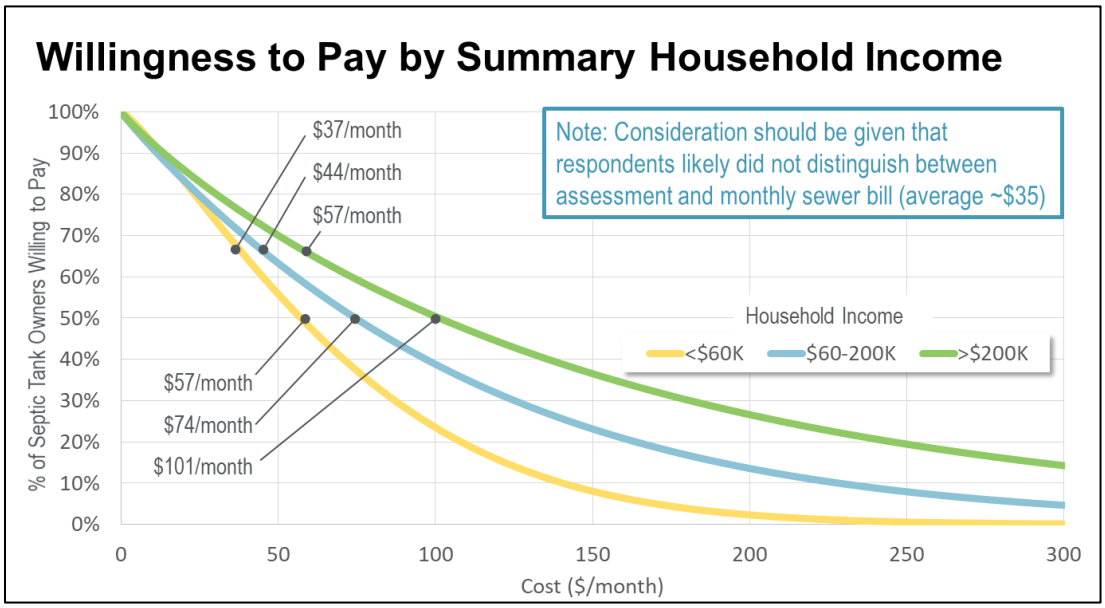


Figure A1-2 Willingness to Pay by Household Income

Attachment 2 – Utility Fund Financial Impact

The financial impact of the proposed Septic to Sewer program on the Utility Fund was evaluated by DPW staff for a range of programmatic variables. A range of scenarios were examined to evaluate the projected long-term financial stability of the program, assuming no contribution from the General Fund.

One of the key drivers related to the financial viability of the program is the magnitude of the County subsidy per connection. The recommended approach, wherein the subsidy is limited to approximately one-fourth of the estimated per connection cost is shown in the figures below. While the maximum cumulative deficit approaches $100 million 30 years into the program, the deficit would be recovered in the long run.

Figures A2-1 and A2-2 below illustrate the impact to Utility Fund cash flows based on the following assumptions:

- State BRF Grant per Connection = $18,500
- County Subsidy per Connection = $16,500
- Average Annual Housing Turnover = 3%
- Borrowing Rate at 30 years = 2%
- Average Annual Inflation Rate = 3%
- CFCC Financing Interest Rate = 4.86%
- Assessment Financing Interest Rate = 3%
- Allowable Deferment Period = 40 years
- Allowable Deferment Amount = 50%
- CFCC Paid Off Upon Sale of Home

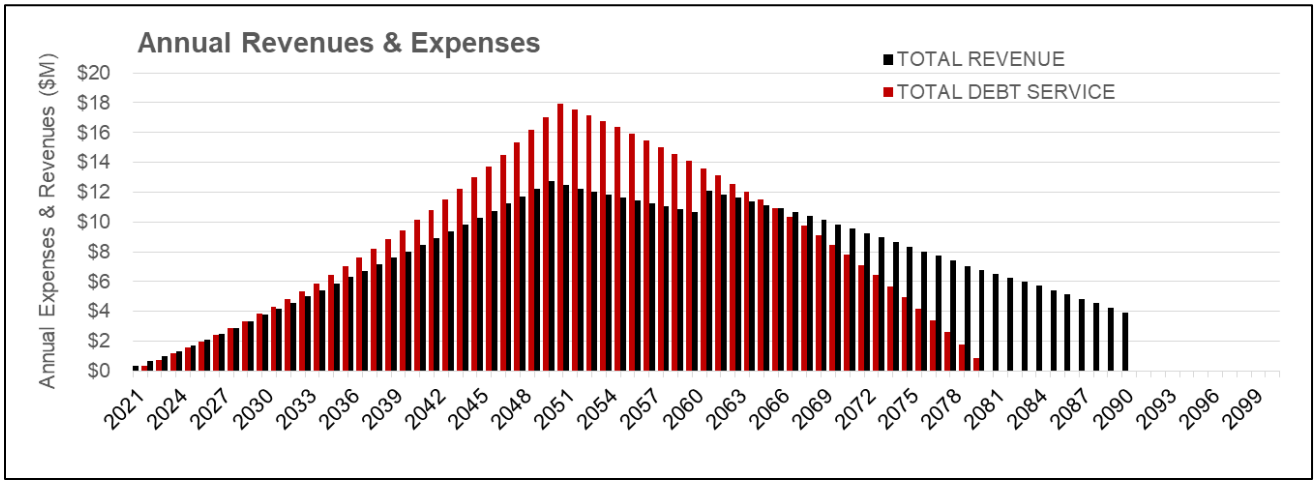


Figure A2-1 Projected Program Revenues and Expenses for County Subsidy of $16,500 per Conversion

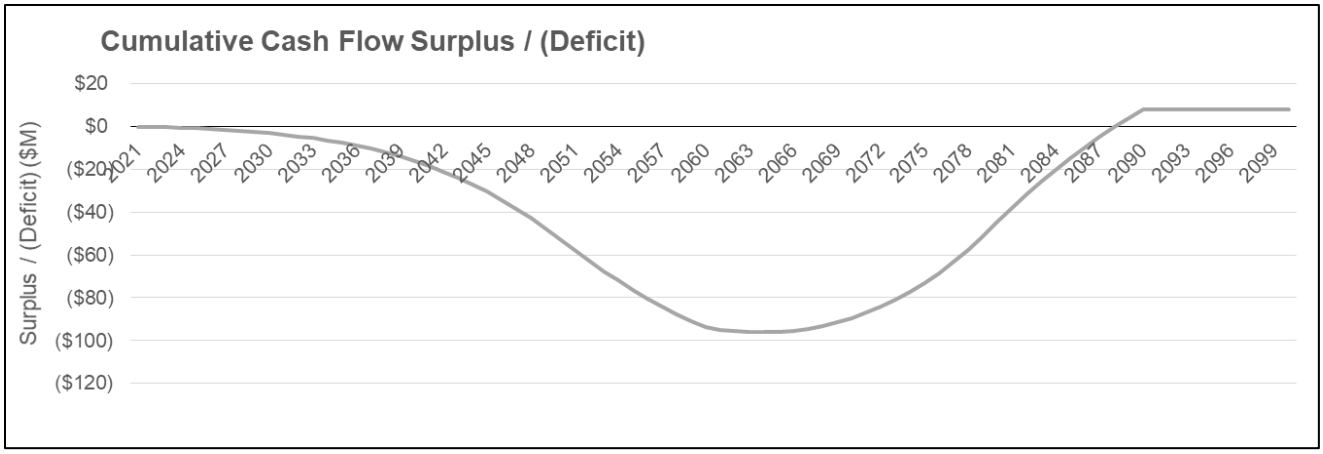


Figure A2-2 Projected Program Cash Flow for County Subsidy of $16,500 per Conversion

By contrast, Figures A2-3 and A2-4 demonstrate the impacts of the County offering a higher subsidy - $20,000 per connection - with the remainder of the variables remaining constant. In this scenario the cumulative deficit reaches approximately $130 million and is ultimately never recovered. The scenario demonstrates that a subsidy at this level would not be sustainable over the long-term. In this manner the DPW staff were able to evaluate each of the programmatic variables and assumptions to arrive at the recommended program in light of the long-term financial impacts.

Figures A2-3 and A2-4 below illustrate the impact to Utility Fund cash flows based on the following assumptions:

- State BRF Grant per Connection = $18,500
- County Subsidy per Connection = $20,000
- Average Annual Housing Turnover = 3%
- Borrowing Rate at 30 years = 2%
- Average Annual Inflation Rate = 3%
- CFCC Financing Interest Rate = 4.86%
- Assessment Financing Interest Rate = 3%
- Allowable Deferment Period = 40 years
- Allowable Deferment Amount = 50%
- CFCC Paid Off Upon Sale of Home

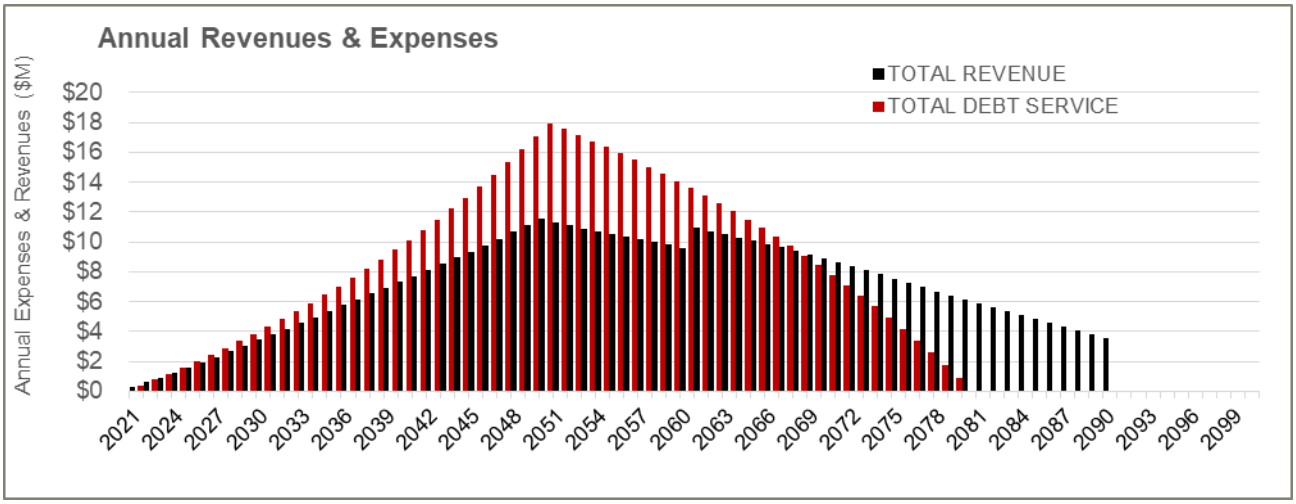


Figure A2-3 Projected Program Revenues and Expenses for County Subsidy of $20,000 per Conversion

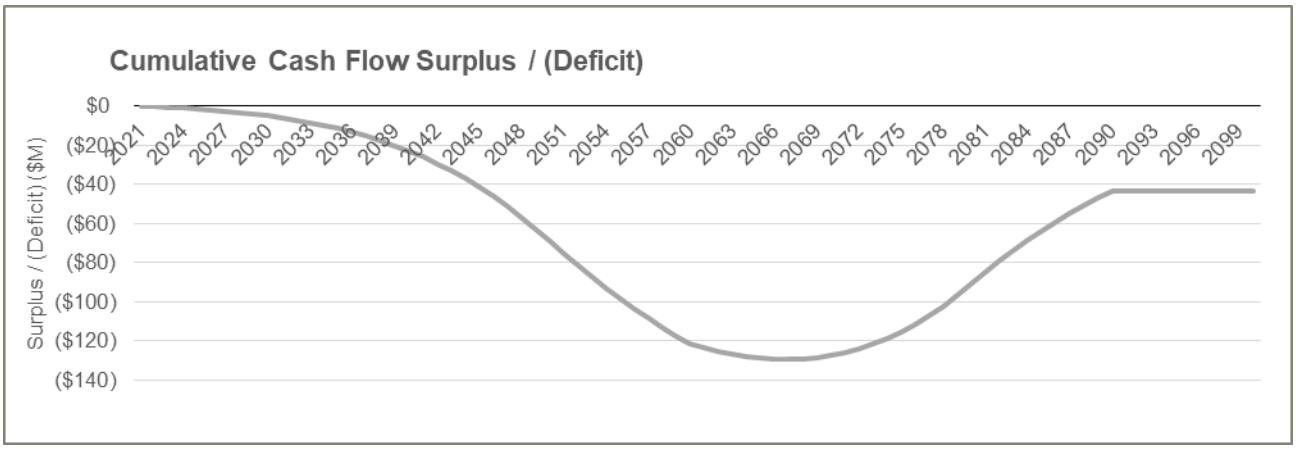


Figure A2-4 Projected Program Cash Flow for County Subsidy of $20,000 per Conversion