
HOWARD COUNTY, MARYLAND

**MAXIMUM EXTENT PRACTICABLE
(MEP) ANALYSIS**

July 7, 2021 - Revised September 28, 2021

Howard County Department of Public Works

Bureau of Environmental Services

Stormwater Management Division

9801 Broken Land Parkway, Columbia, MD 21046

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SECTION 1: SUMMARY NARRATIVE

Howard County, Maryland

Maximum Extent Practicable (MEP) Analysis

Summary Narrative

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The Maryland Department of the Environment (MDE) is in the process of developing of the next generation National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase 1 Medium permit. To aid in the NPDES MS4 permit development process and to be consistent with Maryland's Phase III Watershed Implementation Plan (WIP) to Restore Chesapeake Bay by 2025, MDE developed the Maximum Extent Practicable or "MEP" Analysis to allow jurisdictions the opportunity to document the level of restoration they can accomplish in five years and to show County residents and stakeholders their plan to accomplish multiple objectives and meet restoration goals. On May 13, 2021, MDE requested that Howard County submit its MEP Analysis by July 7, 2021.

The MEP Analysis includes a Physical Capacity Analysis, a Restoration Project Portfolio spreadsheet, and a Fiscal Capacity Analysis and spreadsheet.

Physical Capacity Analysis

The Physical Capacity Analysis is included in Section 2 and is a questionnaire that describes the limitations (other than financial) that Howard County faces when implementing restoration projects. Attachments 1 through 5 support the Physical Capacity Analysis.

The type of project, i.e. ponds, streams, alternative practices, takes different amounts of time to go from initial concept to complete in-the-ground, but generally the County has been able to get 'typical' projects designed, permitted, and built in two to three years. Efforts such as tree planting may only take six months for design and implementation, but there is often additional time needed to actually identify appropriate sites for the tree planting and coordinate with the property owner. Stormwater management pond and stream restoration projects, which are larger and generally more complicated, often have non-cooperative adjacent property owners, and/or require higher levels of permitting (namely MDE Dam Safety review of ponds), which could add a year or more to the typical project time frame for completing typical projects. The County has four on-call design consultant teams and nine on-call construction firms that do the majority of the County's stream and pond restoration projects. When construction costs are projected to exceed \$1 million, the County must put these construction tasks out to public bid. The County has done two design/build projects, as well, but the on-call design and construction contract approach has worked well for the County. The County's schedules for design and construction have not been negatively impacted by a lack of qualified consultants and contractors, including WBE and MBE firms, and there has not been a shortage of firms showing interested in applying for the County's on-call contracts.

Restoration Project Portfolio

The Restoration Project Portfolio spreadsheet is included as Section 3 and includes:

- the list of projects, best management practices, and restoration that Howard County has implemented since meeting its previous permit's 20% impervious surface restoration goal (March 30, 2018)
- the list of projects, best management practices, and restoration that Howard County plans to implement over the next five-year permit term (2022 through 2026)
- the list of projects, best management practices, and restoration known at this time that Howard County may implement over the two years beyond the next five-year permit term (2027 through 2028)

The level of impervious acres restored and pollutant load reductions in the Restoration Project Portfolio is based on the Chesapeake Bay Phase 6 Watershed Model and the 2020 Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated (Accounting Guidance). The Accounting Guidance document incorporates the equivalent impervious acre calculations for alternative practices, and credits for green stormwater infrastructure and watershed management.

With the exception of septic pump-outs, all permanent projects presented in the MEP portfolio are intended to be included as restoration towards the new permit. Annual practices are obligations from the previous permit that will be continued and do not provide extra treatment towards the new permit.

The County edited the Subtotal and Total equations in the Restoration Project Portfolio to reflect the County's permit timeframe (through FY26) and annual operational crediting accurately. Upon review of the spreadsheet equations it was determined that the summed values were not accurate, specifically the =IFS statement was not tabulating the total list of capital projects.

Howard County's Restoration Project Portfolio includes the full suite of stormwater-related projects and programs managed by a typical jurisdiction:

- conveyance
- water quality management
- water quality improvement
- flood control
- quantity management
- engineering design
- construction
- inspection
- maintenance
- restoration
- management

Annual Operational Programs

The County is continuing street sweeping, inlet cleaning, and septic system pumping programs to maintain credits claimed under the County's previous permit (Permit # 11-DP-3318). There are currently no additional planned levels of implementation above what was completed previously; however, the County will revisit these programs regularly to determine if they will be continued or replaced with permanent credits.

The County's street sweeping planning goal is to achieve an annual average of 351.4 impervious acres by the end of the current permit (Permit # 21-DP-3318). This goal maintains the average of street sweeping impervious acres used toward the County's 20% Impervious Restoration Target under the County's previous permit (351.4 acres; average FY11 to FY19). The County's inlet cleaning planning goal is an annual average of 67.8 impervious acres by the end of the current permit, which maintains the average of inlet cleaning impervious acres used towards the County's 20% Impervious Restoration Target (67.8 acres; average FY17-FY19). The planning goal for septic pump-outs is a total of 140.3 impervious acres by the end of the current permit, which equates to an annual target of 20.0 impervious acres or 668 septic pump-outs. This goal maintains the sum of FY15-FY19 septic pump-outs (4,678) used towards the County's 20% Impervious Restoration Target.

Projected implementation of annual practices is under the assumption that there will be a 7-year period, FY20-FY26, for annual practices to apply to the County's current permit. FY20 efforts are complete and recorded in the Restoration Project Portfolio for all three annual practices. For FY21-FY26, the average value needed to hit the planning goal over the next 6 years (to the end of the next permit) to maintain the crediting from the previous permit is recorded. At this time, the County does not have FY21 data; so, FY21 is reflected as a projection like records for future years FY22-FY26. If FY20 efforts fell below the planning goal, projected implementation for future years were adjusted to make up any deficits. The County has not projected annual operational efforts for 2027-2028.

Impervious restoration and load reductions calculations were made following MDE's 2014 Accounting Guidance and associated Bay Program Expert Panel reports. TN EOS load reductions were multiplied by the County average River to Bay TN delivery factor to calculate TN EOT load reductions for street sweeping and inlet cleaning. A summary of the impervious restoration progress made through the end of the County's permit term (December 17, 2019) by Howard County, including crediting from annual operational programs, is included in Table 10 of the County's FY20 Annual Report (Howard County Government, 2020) and detailed in the report submitted with the FY20 annual report titled *Howard County Impervious Restoration Accounting: Methodology and Results, Revised June 2020*.

Flood Mitigation Program

Howard County's Restoration Project Portfolio also includes an extensive flood mitigation program, a component of the Ellicott City Safe and Sound plan (the Plan), which is not typically found in an NPDES water quality restoration portfolio. After the July 2016 and May 2018 catastrophic and deadly floods in Historic Ellicott City, the County developed the Plan to address public safety. The Plan was the result of a major hydrology and hydraulics study to identify opportunities for flood mitigation in Ellicott City. There are four main focus areas of the Plan:

1. ensure public safety and account for climate change
2. support local business and property owners

3. maintain Ellicott City's historic charm
4. develop a more inclusive, community-driven process regarding Ellicott City's future

While some of these focus areas are being addressed through public outreach, enhanced situational awareness, and planning, the primary means for achieving the flood control portion of the Plan is the design and construction of seven large flood control projects. Five of the projects are upland dry flood storage facilities that will attenuate the flood flows that could reach Historic Ellicott City. The other two projects are large flood conveyance projects to divert flows under the town and to the Patapsco River, with one of the conveyance projects being a 5,800-linear foot, 15'-18' diameter rock tunnel under the town and under the CSX railroad. The current total estimated cost for these seven large capital projects is approximately \$140 million. The County is funding this massive effort through a combination of County capital funds, grants, and a WIFIA loan through EPA. While not true "water quality" restoration projects, all of these flood control projects will have benefits to the waterbodies in the area and the County is very interested in working with MDE to quantify the co-benefits for these projects within the context of the County's next permit requirements for meeting the NPDES and TMDL goals.

More general information about the Plan can be found at <https://www.ecsafeandsound.org/>

In addition to the Ellicott City Plan, the County has several other priority areas that will be a main focus during the next NPDES permit term. The July 2016 and May 2018 floods that devastated Historic Ellicott City also did significant damage in other local watersheds including the Valley Mede and Chatham subwatersheds. While not to the extent and cost of the Plan noted above, the County is investing in the design and construction of several flood mitigation capital projects in the Valley Mede and Chatham areas. These projects, many of which are currently in design, could cost upwards of \$10 million.

Another public safety focus for the County during the next permit term, and beyond, is the need for repair and replacement of failing stormwater pond infrastructure. The County has many older ponds that were built with metal barrels and risers, which was the accepted practice at the time of their design. These metal structures have now reached their service life and need to be replaced with concrete pipes and structures. The County has been trying to keep up with the pond repairs at the same time as performing projects to achieve impervious acre restoration and TMDL credits, but the pond needs are outpacing the credit requirements. The County tries to achieve impervious acre/TMDL credits whenever possible through these pond repairs, but that is not always possible due to site specific constraints. These pond repairs and reconstruction projects are typically funded through the County's capital budget.

All of the projects in the County's Restoration Project Portfolio must compete for funds with other County services including fire, police, and schools. With limited capital funds available and the added budget strain from the current COVID-19 pandemic, the County has to evaluate budgets annually and tough decisions are needed to prioritize spending with limited resources.

Financial Capacity Analysis

The Financial Capacity Analysis (FCA), included in Section 4 and Attachment 6, provides information on how stormwater-related costs are viewed in context with:

- Median Household Income (MHI)
- Socioeconomic Indicators (e.g., Unemployment, Poverty)
- Financial Wherewithal (Debt & Financial Management)

The FCA was developed in coordination with the University of Maryland's Environmental Finance Center (UMD-EFC). Data requested was gathered from:

- American Community Survey (ACS) information (<https://data.census.gov/cedsci/>)
- financial reporting websites
- county budgets

The FCA shows that Howard County has successfully invested in its stormwater program, meeting the fourth generation MS4 Permit's 20% impervious surface area restoration requirement. Howard County has been and continues to actively pursue state and federal grants to fund stormwater-related projects and services. The State and Federal grants provide for additional public improvements without additional debt burdens on County residents. The County also offers Watershed Protection Fee Hardship Tax Credit which provides for a 60% credit of the fee.

The FCA shows that Howard County is a financially strong community. Howard County has received the highest possible credit rating, AAA, from all three bond rating agencies for 24 consecutive years. This acknowledges the County's sizable and wealthy tax base, sound fiscal policies, and fiscal management. As all three credit rating agencies provided a stable outlook, the County continues to take a conservative and prudent approach, adhering to its policies, and does not anticipate any negative impacts to future borrowing.

MEP Summary

Under the County's current permit, and as reported in the County's final summary impervious accounting reports submitted in June 2020 (Howard County, 2020), the County's 20% impervious restoration goal of 2,203.8 acres was met on March 30, 2018, which included 559.4 acres of annual practices (street sweeping, catch basin cleaning, and septic system pumping) in addition to permanent practices including stormwater BMP, stream restoration, outfall stabilization, septic practices, and others.

Howard County performed impervious surface restoration credit calculations and pollutant load reduction estimates for projects completed and planned for after the March 30, 2018 date up through 2026, the expected end of the County's next permit term. These projects are included in the Restoration Project Portfolio and total 1,345 acres of impervious restoration. The total restoration projected includes an anticipated 1,336 acres of restoration from 'Capital Projects' and 9 acres of restoration from

'Other' projects, which largely include septic connections and upgrades, and rain barrel installations. The County's 20% goal was based on an impervious untreated baseline of 11,018.9 acres. Completing 1,345 acres of additional impervious restoration would represent 12.2% of the previously identified untreated baseline.

The County believes that the overall restoration plan and unique level of implementation presented with this analysis is the MEP for Howard County. As noted in the financial and physical analyses, there are many stormwater and water quality related responsibilities and priorities facing the County over the next several years that coincide with the permit term and will compete heavily for funding and County resources. Many of these elements do not translate directly into new impervious restoration, but are absolutely needed to maintain existing systems, meet other MS4 goals, and provide for functional and safe infrastructure. These include general inspection, maintenance, and repair of existing infrastructure; monitoring and reporting of system effectiveness; meeting flood management and control objectives; and meeting local TMDL goals related to TN, TP, TSS and the non-Bay TMDL pollutants including bacteria, and PCBs.

The planned level of effort on Howard County's part demonstrated by this MEP analysis should be more than adequate to achieve measurable success over the next permit term, assist MDE in meeting Maryland's statewide goals towards the Bay TMDL, and provide consistency with the Phase III WIP.

References

Howard County Government, Department of Public Works. 2020. Howard County Impervious Restoration Accounting: Methodology and Results, Revised June 2020. Submitted to the State of Maryland Department of the Environment, Baltimore, Maryland.

Howard County Government, Department of Public Works. 2020. National Pollutant Discharge Elimination System NPDES Permit No. MD0068322 State Discharge Permit No. 11-DP-3318 ANNUAL UPDATE NUMBER 25 FISCAL YEAR 2020. Submitted to State of Maryland Department of the Environment, Baltimore, Maryland.

SECTION 2:
PHYSICAL CAPACITY ANALYSIS

Howard County, Maryland

Maximum Extent Practicable (MEP) Analysis

Physical Capacity Analysis

July 7, 2021

1. What is the typical implementation time frame (from planning through construction) for a restoration project? Provide a typical Gantt chart for the following three main classes of BMPs and break down into planning, design, and construction phases: 1. Large upland stormwater projects (e.g., new and retrofits for ponds, bioretention, infiltration basins, etc.); 2. Instream restoration projects; and, 3. Alternative projects (not annual) (e.g., tree planting). Provide a written justification to explain the time frames for each BMP class and phase.

The typical time frame for a “normal” stream or pond project is three to four years from the time that a project is identified and a design consultant is assigned to the project to when construction has been completed. Normal projects are those without special permitting considerations, do not require MDE Dam Safety input, do not impact historic or cultural resources, don’t require property acquisition or easements, do not have public opposition, and have available funding. Sample time frames for normal restoration projects are as follows and are illustrated in the attached Gantt chart (Attachment 1):

- Large upland stormwater projects – Planning - 3 to 6 months; Design, which includes permitting – 12 to 15 months; Construction – 12 to 15 months depending on the size of the project. If the project requires MDE Dam Safety review at least one more year should be added.
- Stream restoration projects – Planning – 3 to 6 months; Design, which includes permitting - 12 to 15 months; Construction – 12 to 15 months depending on size of the project and whether the project stops during the stream closure period.
- Alternative (trees planting) - Planning – 6 months with some projects on a wait list of up to two years; Design and implementation to 3 – 6 months depending on the size of the planting area.
- Alternative (septic pump outs and upgrades) - Planning – converting homes from septic to County sewer infrastructure typically happens slowly and in small amounts due to the cost of the new infrastructure and the willingness and desire by the residents to be taken off their septic system. For pump outs the planning involved is for public education and setting up funding for incentive programs. Design – 12 months for infrastructure improvements and Construction – 12 months to build the new infrastructure and tie in the residents systems.

The schedules in Attachment 1 include examples representing the two types of contracting, on-call and public advertisement, as described in more detail under #3 below. Using the County’s on-call contract, shown in Attachment 1 for large stormwater BMPs an stream restoration projects, a project typically takes 3 years to complete. For projects with estimated construction costs over \$1 million, a public advertisement method is necessary which add approximately 6 months to the overall timeline.

In addition to the timeframes listed and shown on the Gantt chart, post-construction monitoring required by permits, particularly for stream restoration projects, can range from three to five years. Triennial inspections for restoration projects also begin post-construction. After permit required post-

construction monitoring the County continues to visit all completed stream projects on an annual basis even though reporting is not required.

For large upland stormwater and stream restoration projects the County has a large list of potential projects that has been generated by a variety of methods. Projects are added to the list on a rolling basis based on the countywide watershed assessments performed under the current NPDES permit cycle, property owner complaints, BMP inspection results (where repairs/retrofits are identified), and from elected officials. Projects are evaluated and prioritized annually based on project need, public safety concerns, water quality needs, and funding availability. The annual project prioritization/selection process is dynamic since field conditions and other considerations may change from year to year, and flexibility is needed to address the most urgent needs at the time. In some cases a new project that is brought to the County's attention may move to the front of the line based on its potential impact to public safety or infrastructure. When projects are selected to move forward, there is a relatively short initial period to bring a consultant on board and perform a planning level assessment of the potential project to identify any complicating factors that could impact project design or that need to be addressed before proceeding to formal design. Assuming no major issues arise during planning, the County assigns the design of the project to one of our on-call design teams. The design team goes through the normal design process of collecting data, designing the project (typically with 30%, 65%, 95%, and 100% milestone submittals), and submitting for and acquiring all necessary permits. The County also selects one of our on-call environmental restoration contractors to provide value engineering and constructability reviews during the design process.

For alternative projects, namely tree planting, the time frame is quicker due to less time needed for design and planting; however, pre-planning and actually finding sites takes more time since there are limited properties that lend themselves to large reforestation projects. Publicly owned properties including park properties may need to be left un-forested due to possible future uses. Private property owners, as a general rule, may accept a small portion of their property being planted with trees but typically do not volunteer to have major areas re-planted. So while tree planting may be a quicker project type, the ability to get large TMDL and impervious acre credits is less than the larger pond and stream projects.

2. Provide the average time to authorize capital improvement project (CIP) budgets for the initial project planning phase and for the design phase of a typical restoration project (assumes CIP approval for each phase is required). Do you have the ability to combine these two phases or do you have to get CIP approval for each phase consecutively?

Planning and design phases are typically combined with respect to requesting funding. For Howard County the CIP budget process usually starts in October/November at which time the annual prioritization and project selection process noted in #1 above starts. The CIP process involves further assessment and prioritization within the Department of Public Works, but the CIP request is sent to the County Budget Office and then to the County Executive. The Executive proposes his CIP budget, and then staff attend County Council work sessions to explain and justify the CIP requests. Final County Council approval occurs the following May. Funds approved by the County Council in May are then available in July/August, depending on the specific fund source. Once funds are available, the planning process can begin. If funding is not available for all projects initially identified, those projects remain on the potential project list and are reconsidered in the next fiscal year's CIP budget cycle. Typically

Planning/Design funds are requested in one fiscal year and then construction money is requested in the following fiscal year cycle.

3. Provide the average time to procure professional planning, design, and construction services. Is procurement done in phases (e.g., procurement for planning, then procurement for design, and then procurement for construction)? How would a pay for performance type of contract or a design-build-operation-maintenance contract affect these time frames? Please provide information on any innovative contracting mechanism you use to reduce procurement timeframes and what those reduced time frames are.

For environmental restoration projects, Howard County currently has four on-call design teams that are assigned planning/design tasks at the start of a fiscal year based on availability of funds as noted in #2 above. The on-call design contracts are five-year contracts, which are renewed such that there is no gap in availability of design teams. There are infrequent exceptions where the County will put out an Expression of Interest for large or specialized design tasks, e.g. the Ellicott City North Tunnel, which is a 5,800-linear-foot rock tunnel under Ellicott City and the CSX railroad line.

The County also maintains on-call construction contracts. There are four on-call contractors pre-qualified to do pond work and five on-call contractors pre-qualified to do stream work. These are six-year contracts. The County can assign construction tasks to these on-call contractors if they are anticipated to cost less than \$1 million. Construction projects greater than \$1 million are put out for bid. This external bidding process typically takes six to eight months from development of the Invitation for Bid until there is a signed contract. If grant money from the State is part of the construction funding package, another six months would be added to that time frame.

The County has done two design/build contracts for large stream restoration projects, but other than that, design and construction are procured separately. This design/build process from project advertisement to completion of construction took approximately two years; however, for one of the projects, acquisition of easements had to be done before the project was advertised. For normal stream and pond projects, the design/build process may have benefits, but the time to go from planning to construction does not really change.

The County continues to be open to innovative procurement options as they are applicable to specific projects. In the case of two large Ellicott City flood mitigation projects, the County is using the Construction Manager At Risk (CMAR) procurement process to bring the contractor on board early in the design phase, but this approach is not appropriate for typical pond and stream projects.

4. Provide the number of requests for proposals (RFPs) for BMP construction and for BMP design advertised during the past 5-year permit term. Of these, how many bids were submitted for each RFP and how many required re-advertising? Was there a trend over the permit term in the number of bid submittals received? How many unique companies provided bids for all RFPs?

As noted above, design and construction of BMPs is typically done through on-call contracts. For the current on-call design contract, the County received 19 expressions of interest, and through a Quality Based Selection process, chose four design teams to award contracts to. For the current on-call construction contract, the County received 15 bids from qualified contractors, and nine contractors were selected: five for stream work and four for pond work. Contractors were allowed to submit bids

and be selected for both pond and stream work. During the past five-year permit term, less than five stream and pond construction tasks were put out to bid since the rest were assigned to on-call contractors. No contracts required re-advertising. No trends were noticed for number of bids received.

5. Provide information on contracting limitations that result in longer project implementation times. Examples: Limited qualified construction contractors; Woman owned business enterprise (WBE) or minority owned business enterprise (MBE) requirements limit available qualified construction contractors and/or engineering contractors. Describe the issue and provide the time extension that results due to the issue.

The County has not seen a limited number of qualified contractors to date submitting expressions of interest for design or bids for construction, nor have the County's WBE/MBE requirements limited bidders. As noted above, the bulk of the County's construction work to date has been through pre-qualified contractors through an on-call contract, which has limited the number of project-specific invitations for bids, which in turn has limited the chances of having contracting limitation issues. As projects get bigger and more expensive, more projects will be put out to bid, and the County will be able to see if there are issues with the number of qualified bidders in the future.

6. Provide a typical time frame required to obtain permits from local, State, and federal agencies for the three main BMP project classes (i.e., upland stormwater ponds, instream restoration, and alternative projects) prior to construction. Describe how these time frames affect the overall project implementation time frames described in Question #1. How can these time frames be reduced to help get these projects out the door faster?

Permitting varies based on the type and size of project and agencies involved, so typical time frames are hard to say. For stream projects, the critical path for permitting is the Joint Permit Application (JPA) through MDE/Corps. On average, this process takes nine to 12 months. For pond projects, the big determining factor is whether the pond is classified as a significant or high hazard pond where MDE Dam Safety (DS) is involved. If DS is not involved, a typical pond review is done through the Howard Soil Conservation District (HSCD) and takes from eight to 12 months. If DS is involved in the review process, the review time is most likely going to be 12 to 15 months longer than an HSCD review. Alternative projects, in particular tree planting, typically don't go through the detailed review that streams and ponds go through, so permitting may only take six months.

Other factors that extend permit acquisition times are projects that are near historic and/or cultural resources, projects near/through property owned by BGE or CSX, and projects that require utility relocations, as well as projects where the local community opposes the project. Some projects where roadway detours are required also extend the time to permit the project and get public acceptance. If easements or rights of entry are needed to construct a project, that can add at least a year to the overall project schedule.

Agency review times for normal projects do not seem to be the critical path for the County's stream and pond projects; however, quicker turnaround times can also be helpful in speeding up the permit process. Local HSCD review requires three individual reviews; however, in many cases the third review is more of a formality where two reviews would be sufficient. Eliminating one review would save some time. DS review has become the critical path for most projects where DS review is required. Quicker turnaround times by DS would help the overall permit acquisition process. It may be helpful for DS to

assign specific required review times, e.g. 30 days or 45 days. Review by non-governmental agencies such as BGE and CSX do not fall under the normal umbrella of State and Federal reviews and often take an extremely long time. State/Federal review agencies try to coordinate their reviews, which is helpful, but reviews by non-governmental agencies is out of the County's control and does not have fixed turnaround times.

7. What type of a project do you consider as “low-hanging fruit”? What is your remaining capacity of available “low-hanging fruit” projects (estimate the number and impervious acre treatment total)?

Projects considered as “low-hanging fruit” for water quality restoration are projects located on County property that have straight forward design, permitting, and construction; have minimal public opposition; provide large amounts of TMDL or impervious acre credit; and are cost effective.

To date, 64% of the stream restoration projects completed have been solely on county property and 36% have been partially on private property. Those stream projects partially on private property have been brought to the County's attention by the private property owner and the owner has provided the easement without issue or delay. For pond retrofits, 38% of the completed projects have been on County property and 62% have been on private property where the County has an existing easement or responsibility for the pond by way of a recorded maintenance agreement. Planned projects have a similar breakdown of ownership.

While land ownership is a main factor in determining “low-hanging fruit,” County-owned lands also have two additional factors that make these projects good candidates for restoration:

1. They are protected by County enforcement as Open Space, Drainage Easements, or other safeguarded lands, and the County has the authority and responsibility to maintain these lands.
2. They are often located in stream valleys, which receive a large amount of upstream inputs from adjacent developments lacking adequate stormwater management and availability of land for an upland retrofit, making these areas highly impacted areas in greater need of restoration.

Therefore, a focus on “low-hanging fruit” for restoration is actually fulfilling the County's responsibility to address the most impaired and vulnerable areas and provide the largest water quality improvement value. The County also focuses a fair amount of effort on other programs that do not necessarily receive restoration credit, but have other benefits to upland developments such as pond repairs, drainage improvements, and flood control projects.

The County has reviewed its list of potential projects and compared the possible restoration credits from these projects relative to the anticipated need for credit in the next generation MS4 permit. At this time we believe we have sufficient projects in the “low-hanging fruit” category to meet this need.

8. Complete the spreadsheet provided for restoration projects to be planned, designed, and/or constructed from the end of the 4th generation permit through 2028. Include for each restoration project the estimated impervious acres treated, estimated total nitrogen (TN) reduction, estimated total phosphorus (TP) reduction, and estimated total suspended sediments (TSS) reduction; any local total maximum daily load (TMDL) parameter (or other water quality objective) addressed; estimated cost; implementation status; and projected completion year. Include projects that will be in the

planning or design phase but will not be completed until after 2026. This information should be more specific for the first reporting year but may be more generalized for the remaining reporting years.

The Restoration Project Portfolio is included with this submittal in Section 2.

9. Provide a copy of your 5-year CIP for restoration projects (End of 4th Generation Permit 2028).

Copies of pertinent CIP budget sheets for the FY22 budget cycle are provided with this submittal as Attachment 2. While funding beyond FY22 still requires County Council approval, the budget sheets do show projected costs for out years.

10. Provide a copy of your operating budget for annual restoration projects (FY2020).

In general restoration projects are funded from the County's CIP budget; however, the operating budget does fund certain NPDES related efforts, such as salaries of County staff involved with running CIP projects and performing numerous NPDES related tasks, street sweeping, inlet cleaning, Watershed Enhancement Grants given to local non-profits for environmental restoration and public outreach efforts, inspection and maintenance of NPDES BMPs, NPDES required monitoring efforts, and updating and maintenance of the County's NPDES geodatabase. The County's Office of Community Sustainability utilizes operating budget funds to do many of its environmental initiatives, which include reimbursements for the County's septic pump out program, Cleanscapes program, working with commercial property owners to provide additional water quality on their sites, tree planting programs, and water quality monitoring. Copies of the FY22 operating budget General funds and Watershed Protection and Restoration funds are attached.

Please note that there are three files attached (Attachments 3, 4, and 5) that collectively provide the backup requested in Questions 10 and 11.

There are two files that add up to the Stormwater Management Division's operating budget, namely the "1000" (General Fund) (Attachment 3) and "7360" (Watershed Protection and Restoration Fund) (Attachment 4) sheets. The combination of these two fund sources covers any operating tasks that come out of the Stormwater Management Division, which includes BMP inspections, monitoring, geodatabase and reporting, pollutant load/reduction calculations, illicit discharge tracking and reporting, overall management and accounting for the NPDES program, salaries for Stormwater Management Division staff who do our NPDES oversight as well as staff who manage the County's various water quality restoration projects.

There is one separate file that is for the overall Watershed Protection and Restoration Fund (Attachment 5), which covers a portion of Bureau of Highways, Office of Community Sustainability, Howard Soil Conservation District, and the Stormwater Management Division. Therefore there is an overlap between the "7360" fund spreadsheet noted in the previous paragraph and the overall Watershed Protection and Restoration Fund spreadsheet noted in this paragraph. The overall Watershed Protection and Restoration Fund includes our Bureau of Highways pond crew for BMP maintenance and inlet cleaning, Office of Community Sustainability's various outreach efforts and support of their septic pumpout program, in addition to the multiple NPDES related efforts performed by the Stormwater Management Division noted in the previous paragraph.

11. Provide a copy of your operating and maintenance budget for all BMPs implemented under the MS4 permit? (FY2020)

The maintenance of BMPs implemented under the MS4 would be covered by several sources. One source is Bureau of Highways maintenance budget as they are responsible for mowing and routine maintenance for all County BMPs. The second source of maintenance funds is the Stormwater Management Division's capital budget where larger repairs for ponds and on-going inspection and maintenance of stream projects gets funded. Maintenance of tree planting sites is done by Department of Recreation and Parks as part of their normal work effort. Specific funds for the SWM Division and Department of Recreation and Parks is difficult to break out separately. Copies of the FY22 operating budget General funds and Watershed Protection and Restoration funds are attached. See explanation in Question 10 response for the budget sheets that have been attached (Attachments 3, 4, and 5).

It should be noted that with the introduction of ESD requirements, the number of BMPs in the County has grown exponentially, which in turn has significantly increased the inspection and maintenance costs for these BMPs countywide.

SECTION 3:
RESTORATION PROJECT PORTFOLIO

Howard County, Maryland

Restoration Project Portfolio

Restoration Projects To Be Planned, Designed, and/or Constructed From The End Of 4th Generation Permit Through FY 2028

July 7, 2021 - Revised September 23, 2021

Remaining Unmet Restoration Obligation from Previous

REST BMP ID	REST BMP TYPE ¹	BMP CLASS ¹	PERMA-NENT OR ANNUAL BMP	NUM BMP	DRAIN-AGE AREA (acres)	PE (inches)	LENGTH RESTORED (feet)/LANE MILES (miles)/MASS LOADING (lbs)	TP REDUCTION (lbs/year)	TSS REDUCTION (lbs/year)	TN ⁶ REDUCTION (lbs/year)	IMP ACRES (IA)	GREEN STORMWATER INFRASTRUC-TURE (GSI) CREDIT (IA X 0.35)	WATERSHED MANAGE-MENT (WM) CREDIT	TOTAL IMP ACRES (W/ GSI AND WM CREDITS)	IMPLEMEN-TATION COST	IMPLEMEN-TATION STATUS ²	PROJECTED IMPLEMEN-TATION YEAR	TMDL PARAMETER OR WQ OBJECTIVE ADDRESSED	GENERAL COMMENTS ⁷
Remaining Unmet Restoration Obligations from Previous Permit																			
Annual Operational Programs (Unmet Obligations from Previous Permit)^{3,4}																			
Street Sweeping*		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
Catch Basin Cleaning*		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
Septic Sytem Pumping		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
		A	ANNUAL											0.00					
Subtotal Operations ³				0				0.00	0.00	0.00	0.00			0.00	\$0				
Capital Projects (Unmet Obligations from Previous Permit Term)																			
														0.00					
														0.00					
														0.00					
														0.00					
Subtotal Capital				0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0				
Other (Unmet Obligations from Previous Permit Term)																			
														0.00					
														0.00					
Subtotal Other				0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0				
Total of Remaining Obligations from The Previous				0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0				

Obligations from Previous Permit That Must Be Continued

Annual Operational Programs Required to be Maintained from Previous Permit ^{3,4}																		
Street Sweeping		A	ANNUAL	7		1,603,180.00	1,122.23	336,667.80	1,562.70	320.64			320.64	\$400,000	Complete	2020	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; reporting only FY20 mass loading (lbs) results.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Under Construction	2021	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Design	2022	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Planning	2023	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Planning	2024	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Planning	2025	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	7		1,782,403.33	1,247.68	374,304.70	1,737.40	356.48			356.48	\$400,000	Planning	2026	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 351.4 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of street sweeping from 2011-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	0						0.00			0.00		Planning	2027		The County has not projected street sweeping implementation for 2027 at this time
		A	ANNUAL	0						0.00			0.00		Planning	2028		The County has not projected street sweeping implementation for 2028 at this time
Storm Drain Vacuuming		A	ANNUAL	52		92,050.00	64.44	19,330.50	89.73	18.41			18.41	\$75,000	Complete	2020	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; reporting only FY20 mass loading (lbs) results.
		A	ANNUAL	101		379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Under Construction	2021	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	101		379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Design	2022	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	101		379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Planning	2023	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.

		A	ANNUAL	101			379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Planning	2024	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	101			379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Planning	2025	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	101			379,874.83	265.91	79,773.72	370.28	75.97			75.97	\$75,000	Planning	2026	IA, TP/TSS/TN Reduction	EIA and load reductions using 2014 Accounting Guidance; planning goal is to achieve an annual average of 67.8 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the average of inlet cleaning from 2017-2019 used towards the County's 20% Restoration Target (Permit # 11-DP-3318). Estimated mass loading (lbs) based on annual EIA target.
		A	ANNUAL	0							0.00			0.00		Planning	2027		The County has not projected storm drain vacuuming implementation for 2027 at this time
		A	ANNUAL	0							0.00			0.00		Planning	2028		The County has not projected storm drain vacuuming implementation for 2028 at this time
Septic Sytem Pumping		A	ANNUAL																
		A	ANNUAL																
		A	ANNUAL																
		A	ANNUAL																
		A	ANNUAL																
Subtotal Operations ³				100.7				1,466.9	440,067.0	2,042.6	419.1			419.1	\$3,325,000				
Capital Projects (Proposed to Replace Annual Obligations)																			
																			0.00
																			0.00
																			0.00
																			0.00
Subtotal Capital				0				0.00	0.00	0.00	0.00			0.00	\$0				
Other (Proposed to Replace Annual Obligations)																			
Septic Sytem Pumping																			
		A	PERMANENT	4,678							140.30			140.30		Continuing	2015		EIA using 2014 Accounting Guidance. Because the County operates under a comprehensive program, this is considered a permanent practice and credit is cumulative, not annual. The planning goal is to continue to achieve 140.3 EIA by the end of the current permit (Permit # 21-DP-3318) to maintain the sum of 2015-2019 septic pump-outs used towards the County's 20% Restoration Target (Permit # 11-DP-3318). This credit is projected to continue through 2026. The County has not projected septic pump-outs for 2027 or 2028 at this time.
Subtotal Other				4,678				0.00	0.00	0.00	140.30			140.30	\$0				
Total of Obligations from Previous Permit That Must Be Continued				4,779				1,466.9	440,067.0	2,042.6	559.4	0.0	0.0	559.4	\$3,325,000				

Proposed Restoration for the Next Permit

Operational Programs ⁴																		
Street Sweeping		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
Catch Basin Cleaning		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
Septic Sytem Pumping		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
		A	ANNUAL															
Subtotal Operations (up to 2026) ⁵				0			0	0	0	0			0	\$0				
Capital Projects																		
HO17ALN000063	OUT	A	PERMANENT	1	11.50	84.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$40,000	Complete	2019		non-qualifying outfall project
HO17ALN000069	STRE	A	PERMANENT	1	14.22	268.00	65.76	125,260.00	101.19	17.65	0.00	17.65	\$50,000	Complete	2018	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000035	STRE	A	PERMANENT	1	35.74	757.03	143.47	735,765.60	1,439.07	89.37	0.00	89.37	\$694,682	Complete	2018	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000092	STRE	A	PERMANENT	1	4,745.07	2,686.82	257.00	668,000.00	550.19	80.06	0.00	80.06	\$2,445,033	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000093	STRE	A	PERMANENT	1	1,644.76	1,942.00	186.84	681,456.29	271.26	64.49	0.00	64.49	\$987,755	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000096	STRE	A	PERMANENT	1	4.50	216.70	15.47	130,578.00	15.69	8.20	0.00	8.20	\$696,694	Complete	2019	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000136	OUT	A	PERMANENT	1	300.94	75.65	0.00	0.00	0.00	0.00	0.00	0.00	\$50,000	Complete	2018		non-qualifying outfall project	
HO18ALN000149	STRE	A	PERMANENT	1	2,486.43	4,923.00	826.90	362.70	52.62	130.64	0.00	130.64	\$4,779,000	Complete	2019	IA, TP/TSS/TN Reduction	protocols	
HO18ALN000150	STRE	A	PERMANENT	1	116.50	2,299.00	0.00	0.00	0.00	0.00	0.00	0.00	\$377,610	Complete	2018		cannot calculate; no protocol data	
HO19ALN000130	STRE	A	PERMANENT	1	6.17	48.30	0.63	1,664.38	0.89	0.19	0.00	0.19	\$50,000	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO19ALN000169	STRE	A	PERMANENT	1	53.31	1,160.00	95.39	242,364.91	178.56	28.83	0.00	28.83	\$1,041,573	Complete	2019	IA, TP/TSS/TN Reduction	protocols	
HO20ALN000102	STRE	A	PERMANENT	1	1,273.29	5,753.00	745.31	2,729,886.53	1,969.65	274.53	0.00	274.53	\$3,950,296	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO20ALN000153	OUT	A	PERMANENT	1	5.07	162.00	0.00	0.00	0.00	0.00	0.00	0.00	\$256,587	Complete	2019		non-qualifying outfall project	
HO20ALN000154	OUT	A	PERMANENT	1	12.19	100.00	0.00	0.00	0.00	0.00	0.00	0.00	\$145,000	Complete	2019		non-qualifying outfall project	
HO20ALN000155	STRE	A	PERMANENT	1	139.06	2,400.00	189.36	360,618.96	306.66	50.82	0.00	50.82	\$1,496,196	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO20ALN000163	STRE	A	PERMANENT	1	16.86	79.70	9.97	77,580.00	9.32	4.99	0.00	4.99	\$1,979,072	Complete	2020	IA, TP/TSS/TN Reduction	protocols	
HO20ALN000171	OUT	A	PERMANENT	1	6.67	80.00	0.00	0.00	0.00	0.00	0.00	0.00	\$150,000	Complete	2021		non-qualifying outfall project	
HO21ALN000145	STRE	A	PERMANENT	1	897.31	676.00	45.97	167,648.00	30.45	13.52	0.00	13.52	\$972,422	Planning	2025	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000141	STRE	A	PERMANENT	1	27	271.30	18.45	67,272.74	14.77	5.43	0.00	5.43	\$575,437	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000138	OUT	A	PERMANENT	1	18.53	123.00	14.00	26.19	8.98	2.65	0.00	2.65	\$200,000	Complete	2021	IA, TP/TSS/TN Reduction	Designer's current protocol reductions	
HO21ALN000137	STRE	A	PERMANENT	1	90.1	1,214.00	110.00	210,473.00	71.83	26.19	0.00	26.19	\$1,104,376	Complete	2020	IA, TP/TSS/TN Reduction	Designer's current protocol reductions	
HO18ALN000086	OUT	A	PERMANENT	1	32.94	36.00	2.45	8,938.73	1.92	0.72	0.00	0.72	\$45,000	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000173	STRE	A	PERMANENT	1	69.4	72.00	4.90	17,856.00	0.00	1.44	0.00	1.44	\$200,000	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000140	STRE	A	PERMANENT	1	25.56	495.50	33.69	122,881.16	26.97	9.91	0.00	9.91	\$659,913	Complete	2021	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000174	STRE	A	PERMANENT	1	80	125.00	0.00	0.00	0.00	0.00	0.00	0.00	\$200,000	Complete	2020		uncreditable	
HO19ALN000125	STRE	A	PERMANENT	1	24.51	59.40	4.04	14,726.24	2.67	1.19	0.00	1.19	\$1,054,965	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO19ALN000126	OUT	A	PERMANENT	1	0.08	175.20	11.91	43,447.27	7.89	3.50	0.00	3.50	\$100,000	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO19ALN000127	OUT	A	PERMANENT	1	0.84	322.70	21.94	80,024.87	14.53	6.45	0.00	6.45	\$100,000	Planning	2021	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000112	STRE	A	PERMANENT	1	583.15	2,146.00	145.93	532,208.00	116.82	42.92	0.00	42.92	\$1,745,000	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000113	STRE	A	PERMANENT	1	6.45	172.00	11.7	42,656.00	9.36	3.44	0.00	3.44	\$100,000	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000177	STRE	A	PERMANENT	1	51.7	438.00	29.78	108,624.00	23.84	8.76	0.00	8.76	\$102,500	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000178	STRE	A	PERMANENT	1	39.4	286.00	19.45	70,928.00	15.57	5.72	0.00	5.72	\$102,500	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000179	OUT	A	PERMANENT	1		92.00	6.26	22,816.00	5.01	1.84	0.00	1.84	\$50,000	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000161	STRE	A	PERMANENT	1	192.33	349.20	23.74	86,596.27	19.01	6.98	0.00	6.98	\$603,922	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000142	STRE	A	PERMANENT	1	26.62	209.40	14.24	51,922.93	11.13	4.19	0.00	4.19	\$915,094	Planning	2026	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000151	STRE	A	PERMANENT	1	89.67	581.10	39.51	144,111.91	26.17	11.62	0.00	11.62	\$1,648,920	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO18ALN000007	OUT	A	PERMANENT	1	1.32	228.50	15.54	56,658.08	9.40	4.57	0.00	4.57	\$810,666	Planning	2025	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000143	STRE	A	PERMANENT	1	1,235.00	3,467.00	235.76	859,816.00	156.16	69.34	0.00	69.34	\$3,095,465	Under Construction	2023	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000144	STRE	A	PERMANENT	1	64.14	710.90	48.34	176,292.59	32.02	14.22	0.00	14.22	\$687,852	Planning	2025	IA, TP/TSS/TN Reduction	planning rate	
HO19ALN000128	STRE	A	PERMANENT	1	57.39	1,382.90	94.04	342,969.88	75.28	27.66	0.00	27.66	\$998,679	Planning	2024	IA, TP/TSS/TN Reduction	planning rate	
HO20ALN000124	STRE	A	PERMANENT	1	130.92	3,589.40	244.08	890,164.69	161.68	71.79	0.00	71.79	\$2,468,446	Planning	2022	IA, TP/TSS/TN Reduction	planning rate	
HO21ALN000120	STRE	A	PERMANENT	1	11,356.00	1,526.50	103.8	378,572.00	83.10	30.53	0.00	30.53	\$800,000	Planning	2024	IA, TP/TSS/TN Reduction	planning rate	
HO23ALN000180	STRE	A	PERMANENT	1		2,000.00	136.00	496,000.00	90.09	40.00	0.00	40.00	\$2,850,000	Planning	2023	IA, TP/TSS/TN Reduction	planning rate; estimated LF	
HO19APY100163	RFP	A	PERMANENT		0.20		0.50	882.20	1.72	0.30	0.00	0.30	\$0	Complete	2018	IA, TP/TSS/TN Reduction		
HO19APY100166	RFP	A	PERMANENT		0.10		0.25	441.10	0.86	0.15	0.00	0.15	\$500	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100048	RFP	A	PERMANENT		0.50		1.25	2,205.50	3.93	0.75	0.00	0.75	\$4,555	Complete	2018	IA, TP/TSS/TN Reduction		
HO19APY100167	RFP	A	PERMANENT		0.77		1.93	3,396.47	6.06	1.16	0.00	1.16	\$0	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100037	FPU	A	PERMANENT		0.75		1.34	2,103.75	1.15	0.83	0.00	0.83	\$7,860	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100038	UTC	A	PERMANENT		0.70		0.35	144.20	1.59	0.20	0.00	0.20	\$3,075	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100039	RFP	A	PERMANENT		0.70		1.75	3,087.70	1.20	1.05	0.00	1.05	\$3,720	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100045	UTC	A	PERMANENT		0.50		0.25	103.00	1.13	0.14	0.00	0.14	\$3,938	Complete	2018	IA, TP/TSS/TN Reduction		
HO18APY100049	FPU	A	PERMANENT		0.25		0.45	701.25	1.97	0.28	0.00	0.28	\$3,075	Complete	2018	IA, TP/TSS/TN Reduction		

HO18APY100040	UTC	A	PERMANENT		0.75			0.38	154.50	1.70	0.21	0.00		0.21	\$9,188	Complete	2018	IA, TP/TSS/TN Reduction	
HO19APY100169	RFP	A	PERMANENT		0.10			0.25	435.54	1.03	0.15	0.00		0.15	\$1,278	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100170	RFP	A	PERMANENT		0.17			0.42	742.37	1.75	0.25	0.00		0.25	\$1,813	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100171	RFP	A	PERMANENT		0.19			0.48	839.41	1.98	0.29	0.00		0.29	\$1,822	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100172	RFP	A	PERMANENT		0.16			0.40	705.32	0.27	0.24	0.00		0.24	\$2,482	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100173	RFP	A	PERMANENT		0.13			0.33	585.78	1.38	0.20	0.00		0.20	\$2,365	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100174	RFP	A	PERMANENT		0.14			0.36	628.57	1.45	0.21	0.00		0.21	\$1,920	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100175	FPU	A	PERMANENT		0.01			0.01	16.55	0.05	0.01	0.00		0.01	\$379	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100168	FPU	A	PERMANENT		1.54			2.74	4,319.70	12.77	1.69	0.00		1.69	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19APY100176	RFP	A	PERMANENT		0.35			0.87	1,539.88	0.69	0.52	0.00		0.52	\$4,502	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100177	UTC	A	PERMANENT		0.07			0.03	13.74	0.15	0.02	0.00		0.02	\$2,203	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100178	FPU	A	PERMANENT		0.18			0.33	512.19	1.22	0.20	0.00		0.20	\$417	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100195	RFP	A	PERMANENT		0.43			1.08	1,897.17	0.85	0.65	0.00		0.65	\$2,954	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100344	RFP	A	PERMANENT		0.43			1.08	1,897.17	0.85	0.65	0.00		0.65	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100164	RFP	A	PERMANENT		2.09			5.23	9,218.99	21.75	3.14	0.00		3.14	\$7,730	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100194	RFP	A	PERMANENT		0.36			0.90	1,587.96	1.55	0.54	0.00		0.54	\$3,492	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100205	FPU	A	PERMANENT		0.24			0.43	673.20	1.89	0.26	0.00		0.26	\$2,912	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100192	RFP	A	PERMANENT		0.40			1.00	1,764.40	3.44	0.60	0.00		0.60	\$6,958	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100208	RFP	A	PERMANENT		4.00			10.00	17,644.00	31.46	6.00	0.00		6.00	\$6,958	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100193	RFP	A	PERMANENT		0.24			0.60	1,058.64	2.44	0.36	0.00		0.36	\$2,954	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100198	UTC	A	PERMANENT		0.25			0.13	51.50	0.57	0.07	0.00		0.07	\$3,005	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100199	RFP	A	PERMANENT		0.15			0.38	661.65	0.30	0.23	0.00		0.23	\$2,542	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100189	FPU	A	PERMANENT		1.23			2.19	3,450.15	8.21	1.35	0.00		1.35	\$16,294	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100206	UTC	A	PERMANENT		0.23			0.12	47.38	0.10	0.06	0.00		0.06	\$2,845	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100191	FPU	A	PERMANENT		0.22			0.39	617.10	1.73	0.24	0.00		0.24	\$2,522	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100204	UTC	A	PERMANENT		0.68			0.34	140.08	0.65	0.19	0.00		0.19	\$6,122	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100190	UTC	A	PERMANENT		0.70			0.35	144.20	1.59	0.20	0.00		0.20	\$10,699	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100202	RFP	A	PERMANENT		0.53			1.33	2,337.83	1.05	0.80	0.00		0.80	\$4,562	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100200	RFP	A	PERMANENT		0.52			1.30	2,293.72	3.81	0.78	0.00		0.78	\$2,848	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100207	FPU	A	PERMANENT		0.35			0.62	981.75	2.34	0.39	0.00		0.39	\$3,891	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100201	UTC	A	PERMANENT		0.72			0.36	148.32	0.69	0.20	0.00		0.20	\$4,745	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100203	UTC	A	PERMANENT		0.40			0.20	82.40	0.91	0.11	0.00		0.11	\$6,394	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100179	RFP	A	PERMANENT		0.16			0.40	709.73	1.67	0.24	0.00		0.24	\$1,633	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100180	FPU	A	PERMANENT		0.05			0.09	140.25	0.39	0.06	0.00		0.06	\$676	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100181	UTC	A	PERMANENT		0.44			0.22	90.64	1.00	0.12	0.00		0.12	\$5,359	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100182	FPU	A	PERMANENT		0.26			0.46	729.30	2.05	0.29	0.00		0.29	\$3,227	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100183	RFP	A	PERMANENT		0.81			2.03	3,572.91	3.48	1.22	0.00		1.22	\$11,335	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100184	RFP	A	PERMANENT		0.29			0.73	1,279.19	0.57	0.44	0.00		0.44	\$3,330	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100185	UTC	A	PERMANENT		0.25			0.13	51.50	0.57	0.07	0.00		0.07	\$2,923	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100186	FPU	A	PERMANENT		0.25			0.45	701.25	2.07	0.28	0.00		0.28	\$2,927	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100187	FPU	A	PERMANENT		0.41			0.73	1,150.05	2.74	0.45	0.00		0.45	\$2,207	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100188	UTC	A	PERMANENT		0.33			0.17	67.98	0.77	0.09	0.00		0.09	\$2,225	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100196	RFP	A	PERMANENT		0.57			1.43	2,514.27	5.79	0.86	0.00		0.86	\$8,428	Complete	2019	IA, TP/TSS/TN Reduction	
HO19APY100197	RFP	A	PERMANENT		0.70			1.75	3,087.70	6.03	1.05	0.00		1.05	\$11,303	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100347	RFP	A	PERMANENT		1.24			3.10	5,469.64	10.68	1.86	0.00		1.86	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100348	UTC	A	PERMANENT		0.58			0.29	119.48	0.95	0.16	0.00		0.16	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100341	RFP	A	PERMANENT		0.03			0.06	110.28	0.26	0.04	0.00		0.04	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100346	UTC	A	PERMANENT		0.52			0.26	107.12	0.85	0.15	0.00		0.15	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100349	FPU	A	PERMANENT		0.25			0.45	701.25	1.97	0.28	0.00		0.28	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100352	UTC	A	PERMANENT		0.25			0.13	51.50	0.24	0.07	0.00		0.07	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100353	UTC	A	PERMANENT		1.38			0.69	284.28	1.32	0.39	0.00		0.39	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100338	RFP	A	PERMANENT		0.87			2.17	3,824.34	1.48	1.30	0.00		1.30	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100355	FPU	A	PERMANENT		0.29			0.52	813.45	1.94	0.32	0.00		0.32	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100350	UTC	A	PERMANENT		1.10			0.55	225.57	2.48	0.31	0.00		0.31	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100351	RFP	A	PERMANENT		0.33			0.83	1,455.63	0.65	0.50	0.00		0.50	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100354	RFP	A	PERMANENT		0.25			0.63	1,102.75	1.83	0.38	0.00		0.38	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100345	UTC	A	PERMANENT		0.66			0.33	136.58	1.08	0.19	0.00		0.19	\$0	Complete	2020	IA, TP/TSS/TN Reduction	
HO20APY100337	UTC	A	PERMANENT		0.02			0.01	3.13	0.03	0.00	0.00		0.00	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100339	RFP	A	PERMANENT		0.13			0.33	583.04	1.04	0.20	0.00		0.20	\$0	Complete	2020	IA, TP/TSS/TN Reduction	
HO20APY100340	RFP	A	PERMANENT		0.05			0.13	222.83	0.53	0.08	0.00		0.08	\$0	Complete	2020	IA, TP/TSS/TN Reduction	
HO20APY100336	RFP	A	PERMANENT		0.08			0.21	369.14	0.87	0.13	0.00		0.13	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100342	RFP	A	PERMANENT		0.12			0.29	513.82	1.00	0.17	0.00		0.17	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100343	RFP	A	PERMANENT		0.07			0.17	293.12	0.57	0.10	0.00		0.10	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100329	RFP	A	PERMANENT		0.21			0.54	944.21	0.42	0.32	0.00		0.32	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100356	FPU	A	PERMANENT		0.41			0.73	1,150.05	0.89	0.45	0.00		0.45	\$0	Complete	2020	IA, TP/TSS/TN Reduction	
HO20APY100332	RFP	A	PERMANENT		0.04			0.10	179.29	0.42	0.06	0.00		0.06	\$0	Complete	2011	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.

HO15APY001080	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001081	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001082	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$53	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001112	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$68	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001113	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$68	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001114	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001115	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001116	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001147	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$60	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15APY001148	UTC	A	PERMANENT		0.01			0.01	2.06	0.02	0.00	0.00		0.00	\$68	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20APY100334	RFP	A	PERMANENT		0.50		1.25		2,205.50	0.99	0.75	0.00		0.75	\$0	Complete	2017	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20APY100335	RFP	A	PERMANENT		0.50		1.25		2,205.50	0.99	0.75	0.00		0.75	\$0	Complete	2017	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO19APY100320	IMPP	A	PERMANENT		0.06		0.03		300.79	0.29	0.04	0.00		0.04	\$450	Complete	2018	IA, TP/TSS/TN Reduction	
HO19APY100321	IMPP	A	PERMANENT		0.06		0.03		300.79	0.29	0.04	0.00		0.04	\$666	Complete	2018	IA, TP/TSS/TN Reduction	
HO21APY100607	IMPP	A	PERMANENT		0.08		0.04		435.06	0.35	0.06	0.00		0.06	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO21APY100608	IMPP	A	PERMANENT		0.10		0.05		546.33	0.44	0.07	0.00		0.07	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO21APY100609	IMPP	A	PERMANENT		0.09		0.04		458.47	0.37	0.06	0.00		0.06	\$0	Complete	2020	IA, TP/TSS/TN Reduction	
HO21APY100619	IMPP	A	PERMANENT		0.05		0.02		251.10	0.20	0.03	0.00		0.03	\$0	Complete	2021	IA, TP/TSS/TN Reduction	
HO21APY100611	IMPP	A	PERMANENT		0.14		0.06		747.78	0.60	0.10	0.00		0.10	\$0	Complete	2021	IA, TP/TSS/TN Reduction	
HO21APY100620	IMPP	A	PERMANENT		0.03		0.01		155.26	0.12	0.02	0.00		0.02	\$0	Planning	2022	IA, TP/TSS/TN Reduction	
HO21APY100617	IMPP	A	PERMANENT		0.01		0.00		41.71	0.03	0.01	0.00		0.01	\$0	Planning	2022	IA, TP/TSS/TN Reduction	
HO21APY100618	IMPP	A	PERMANENT		0.02		0.01		126.27	0.10	0.02	0.00		0.02	\$0	Planning	2022	IA, TP/TSS/TN Reduction	
HO21APY100612	IMPP	A	PERMANENT		0.02		0.01		93.71	0.07	0.01	0.00		0.01	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO21APY100613	IMPP	A	PERMANENT		0.02		0.01		97.77	0.08	0.01	0.00		0.01	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO21APY100614	IMPP	A	PERMANENT		0.02		0.01		102.57	0.08	0.01	0.00		0.01	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO21APY100615	IMPP	A	PERMANENT		0.01		0.00		39.14	0.03	0.01	0.00		0.01	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO21APY100616	IMPP	A	PERMANENT		0.03		0.01		151.86	0.12	0.02	0.00		0.02	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO21APY100610	IMPP	A	PERMANENT		0.09		0.04		494.68	0.39	0.07	0.00		0.07	\$0	Planning	2021	IA, TP/TSS/TN Reduction	
HO18RST902744	MRNG	E	PERMANENT	1	0.15	1.00		0.07	164.58	0.89	0.09	0.03		0.12	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902745	MRNG	E	PERMANENT	1	0.15	1.00		0.08	134.94	0.81	0.06	0.02		0.08	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902747	MRNG	E	PERMANENT	1	0.15	1.00		0.08	148.46	0.30	0.06	0.02		0.08	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902740	MRNG	E	PERMANENT	1	0.15	1.00		0.08	106.90	0.72	0.03	0.01		0.05	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902616	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$497	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902160	SPSC	A	PERMANENT	1	35.74	0.13		12.46	26,742.42	99.08	10.55	0.00		10.55	\$100,000	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902737	MRNG	E	PERMANENT	1	0.15	1.00		0.08	93.49	0.65	0.04	0.01		0.05	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902741	MRNG	E	PERMANENT	1	0.15	1.00		0.10	132.53	0.49	0.02	0.01		0.03	\$0	Complete	2018	IA, TP/TSS/TN Reduction	

HO18RST902742	MRNG	E	PERMANENT	1	0.15	1.00		0.09	152.07	0.52	0.04	0.01		0.05	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902746	MRNG	E	PERMANENT	1	0.15	1.00		0.08	142.41	0.29	0.05	0.02		0.07	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902683	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902680	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902743	MRNG	E	PERMANENT	1	0.15	1.00		0.08	98.21	0.70	0.03	0.01		0.03	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902161	MRNG	E	PERMANENT	1	0.02	1.00		0.01	33.57	0.08	0.02	0.01		0.02	\$3,500	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902686	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.05		0.20	\$398	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902162	MRNG	E	PERMANENT	1	0.11	1.00		0.07	86.99	0.34	0.01	0.00		0.01	\$2,400	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902090	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902094	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST902163	MRNG	E	PERMANENT	3	2.16	1.00		1.19	1,216.55	9.55	0.16	0.06		0.22	\$22,100	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902068	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902108	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902749	MRNG	E	PERMANENT	1	0.15	1.00		0.09	145.14	0.50	0.03	0.01		0.04	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902750	MRNG	E	PERMANENT	1	0.15	1.00		0.08	76.01	0.59	0.02	0.01		0.02	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902295	MRNG	E	PERMANENT	1	0.20	1.00		0.10	101.11	0.78	0.02	0.01		0.03	\$4,700	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902297	MRNG	E	PERMANENT	1	0.14	1.00		0.07	86.72	0.59	0.04	0.01		0.05	\$12,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902691	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$504	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902748	MRNG	E	PERMANENT	1	0.15	1.00		0.10	112.79	0.46	0.01	0.00		0.01	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902693	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902021	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902022	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902296	MRNG	E	PERMANENT	1	0.19	1.00		0.09	142.4	0.89	0.07	0.02		0.09	\$4,800	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902300	MRNG	E	PERMANENT	1	4.99	1.00		2.61	2,102.66	18.28	0.13	0.05		0.17	\$16,000	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902689	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902690	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902083	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902298	MRNG	E	PERMANENT	1	0.13	1.00		0.08	131.14	0.44	0.03	0.01		0.04	\$6,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO20RST109800	MMBR	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.99	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902051	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902140	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902762	MIDW	E	PERMANENT	1	0.08	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$6,125	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902688	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$497	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902687	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902303	MRNG	E	PERMANENT	1	2.74	1.00		1.78	1,865.50	8.05	0.02	0.01		0.02	\$6,300	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902301	MIBR	E	PERMANENT	1	0.01	1.00		0.06	195.83	0.92	0.13	0.05		0.18	\$8,000	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902073	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902079	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902125	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902302	MRNG	E	PERMANENT	1	0.47	0.50		0.18	329.71	1.93	0.11	0.04		0.14	\$12,000	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902703	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.05		0.20	\$666	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902024	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902036	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902057	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902146	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902751	MRNG	E	PERMANENT	1	0.15	1.00		0.08	98.17	0.70	0.03	0.01		0.03	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902032	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902033	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902070	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902071	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902133	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.99	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902692	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902694	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.99	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902700	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902697	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902698	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.05		0.20	\$1,200	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902696	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902307	MRNG	E	PERMANENT	1	0.14	1.00		0.08	71.50	0.56	0.02	0.01		0.02	\$6,875	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902699	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902695	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$564	Complete	2018	IA, TP/TSS/TN Reduction	
HO20RST109768	MMBR	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.99	0.15	0.05		0.20	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902701	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$497	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902707	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$394	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902702	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$494	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST902705	MRNG	E	PERMANENT	1	0.15	1.00		0.07	294.09	0.75	0.15	0.05		0.20	\$1,200	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST902706	MRNG	E	PERMANENT	1	0.15	1.00		0.07	294.09	0.75	0.15	0.05		0.20	\$1,200	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109759	MSWB	E	PERMANENT	1	0.47	1.00		0.23	354.47	2.21	0.18	0.06		0.25	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO03RST900354	FBIO	S	PERMANENT	1	8.50	1.00		5.15	9,568.67	30.69	2.80	0.00		2.80	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST902710	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.05		0.20	\$640	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST902708	MRNG	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.05		0.20	\$344	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST902752	MRNG	E	PERMANENT	1	0.15	1.00		0.07	196.20	0.18	0.03	0.01		0.04	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST902753	MRNG	E	PERMANENT	1	0.15	1.00		0.10	189.20	0.18	0.04	0.01		0.05	\$0	Complete	2019	IA, TP/TSS/TN Reduction	

HO20RST109717	MRNG	E	PERMANENT	1	0.08	1.00		0.04	63.70	0.42	0.02	0.01		0.03	\$5,038	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST902754	MRNG	E	PERMANENT	1	0.15	1.00		0.08	110.27	0.74	0.04	0.01		0.05	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST902755	MRNG	E	PERMANENT	1	0.15	1.00		0.08	138.63	0.57	0.03	0.01		0.04	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109720	MRNG	E	PERMANENT	1	0.23	1.00		0.12	137.49	0.97	0.05	0.02		0.07	\$8,262	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109721	MRNG	E	PERMANENT	2	0.29	1.00		0.15	138.49	1.12	0.03	0.01		0.03	\$7,745	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109724	MRNG	E	PERMANENT	1	0.13	1.00		0.08	169.77	0.51	0.06	0.02		0.08	\$9,124	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109757	MMBR	E	PERMANENT	1	0.15	1.00		0.07	294.09	0.75	0.15	0.05		0.20	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109758	MMBR	E	PERMANENT	1	0.92	1.00		0.48	380.62	3.35	0.01	0.01		0.02	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO18RST902757	FBIO	S	PERMANENT	1	0.71	1		0.36	613.99	3.74	0.27	0.00		0.27	\$0	Complete	2018	IA, TP/TSS/TN Reduction	
HO18RST102187	PWET	S	PERMANENT	1	24.26	2.6		1.57	3,442.68	6.74	7.30	0.00		7.30	\$152,980	Complete	2018	IA, TP/TSS/TN Reduction	
HO17RST900345	PWET	S	PERMANENT	2	18.45	0.69		6.74	10,839.87	45.93	2.94	0.00		2.94	\$1,159,787	Complete	2018	IA, TP/TSS/TN Reduction	
HO19RST901545	PWET	S	PERMANENT	1	22.63	0.81		10.31	19,471.13	42.09	4.17	0.00		4.17	\$1,295,021	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST901524	PWET	S	PERMANENT	1	9.95	2.6		4.5	6,360.89	27.89	2.25	0.00		2.25	\$746,735	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST900349	WSHW	S	PERMANENT	1	24.3	0.37		5.69	12,497.79	46.43	4.88	0.00		4.88	\$862,459	Complete	2019	IA, TP/TSS/TN Reduction	
HO19RST902444	MMBR	E	PERMANENT	1	2.26	1		0	0	0.00	0.00	0.00		0.00	\$0	Complete	2019	IA, TP/TSS/TN Reduction	
HO18RST901548	PWED	S	PERMANENT	1	23.91	1		0	0	0.00	7.47	0.00		7.47	\$738,635	Complete	2019	IA, TP/TSS/TN Reduction	
HO20RST109863	PMED	S	PERMANENT	1	33.61	0.38		9.35	18,479.71	55.69	4.64	0.00		4.64	\$500,000	Complete	2020	IA, TP/TSS/TN Reduction	
HO20RST103435	PWED	S	PERMANENT	1	58.88	1.48		2.44	4,770.12	10.13	1.76	0.00		1.76	\$1,420,946	Under Construction	2021	IA, TP/TSS/TN Reduction	
HO20RST900323	PWET	S	PERMANENT	1	76.54	0.27		12.84	23,283.05	78.70	6.52	0.00		6.52	\$1,823,182	Planning	2022	IA, TP/TSS/TN Reduction	
HO18RST901518	SPSC	A	PERMANENT	1	37.17	1.34		17.7	31,953.80	100.37	11.15	0.00		11.15	\$1,178,099	Under Construction	2021	IA, TP/TSS/TN Reduction	
HO18RST901523	MSGW	E	PERMANENT	1	41.93	2.6		2.36	3,773.56	11.20	0.62	0.00		0.62	\$902,696	Planning	2023	IA, TP/TSS/TN Reduction	
HO18RST901522	PWET	S	PERMANENT	1	69.07	0.31		15.52	27,785.12	111.69	6.15	0.00		6.15	\$2,103,967	Planning	2022	IA, TP/TSS/TN Reduction	
HO20RST901526	PWET	S	PERMANENT	1	57.62	0.13		6.6	12,492.88	29.71	1.23	0.00		1.23	\$923,784	Planning	2023	IA, TP/TSS/TN Reduction	
HO21RST901527	PWET	S	PERMANENT	1	34.58	0.83		11.25	26,622.97	51.88	9.61	0.00		9.61	\$1,164,747	Under Construction	2021	IA, TP/TSS/TN Reduction	
HO20RST109732	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109733	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109734	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109735	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109736	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109737	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109738	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109739	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109740	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109741	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20RST109742	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.

HO2ORST109743	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109744	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109745	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109746	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109747	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109748	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109749	MRNG	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109750	MRNG	E	PERMANENT	1	0.15	1.00		0.08	307.00	0.75	0.15	0.00		0.15	\$0	Complete	2010	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109776	ODSW	S	PERMANENT	1	5.00	1.00		2.03	9,922.62	27.84	5.00	0.00		5.00	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109764	MIDW	E	PERMANENT	1	0.15	1.00		0.06	297.68	0.84	0.15	0.00		0.15	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109765	MIDW	E	PERMANENT	1	0.15	1.00		0.06	297.68	0.84	0.15	0.00		0.15	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109766	MIDW	E	PERMANENT	1	0.15	1.00		0.06	297.68	0.84	0.15	0.00		0.15	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109767	MMBR	E	PERMANENT	1	0.15	1.00		0.06	196.29	0.97	0.15	0.00		0.15	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO19RST108440	PWED	S	PERMANENT	1	55.35	1.00		21.79	34,408.24	143.43	16.30	0.00		16.30	\$0	Complete	2013	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109752	FBIO	S	PERMANENT	1	0.21	1.00		0.11	84.57	0.76	0.00	0.00		0.00	\$0	Complete	2014	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO15RST900314	FBIO	S	PERMANENT	1	0.22	1.00		0.12	455.61	1.11	0.22	0.00		0.22	\$100,000	Complete	2015	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO2ORST109815	MMBR	E	PERMANENT	1	0.15	1.00		0.06	222.54	1.05	0.15	0.00		0.15	\$0	Complete	2017	IA, TP/TSS/TN Reduction	Project added from FY20 database cleanup efforts. Credit is being applied toward the restoration requirement of the 5th generation permit rather than changing the final treatment under the 4th generation permit.
HO20APY100621	CLTM	A	PERMANENT	1	0.11			0.06	0.00	0.41	0.04	0.00		0.04	\$8,621	Complete	2019	IA, TP/TSS/TN Reduction	
HO20APY100622	CLTM	A	PERMANENT	1	0.08			0.04	0.00	0.32	0.03	0.00		0.03	\$7,245	Complete	2019	IA, TP/TSS/TN Reduction	
HO22RST902771		S	PERMANENT	1				0.00	0.00	0.00	0.00	0.00		0.00	\$7,346,931	Planning	2022	Flood control	
HO2ORST901543		S	PERMANENT	1				0.00	0.00	0.00	0.00	0.00		0.00	\$20,180,758	Planning	2023	Flood control	

HO23RST902773		S	PERMANENT	1				0.00	0.00	0.00	0.00	0.00	0.00	\$3,554,091	Planning	2023	Flood control		
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Under Construction	2020	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Under Construction	2021	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Design	2022	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2023	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2024	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2025	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2026	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2027	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS											1			\$400,000	Planning	2028	Education, Outreach, IA, TP/TSS/TN Reduction	This project is for design and construction of Environmental Site Design (ESD) small scale storm water facilities by local non-profit, Howard EcoWorks.	
Subtotal Capital (up to 2026)				184				4,204.3	11,173,850.7	7,175.3	1,332.7	3.3	0.0	1,336.0	\$90,841,970				
Other																			
HO18APT007690	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$10,000	Complete	2018	IA	
HO18APT007699	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$12,850	Complete	2018	IA	
HO18APT007694	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$20,000	Complete	2018	IA	
HO18APT007693	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$14,360	Complete	2018	IA	
HO18APT007697	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$20,000	Complete	2018	IA	
HO19APT008548	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008552	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008547	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008550	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008554	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008555	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008553	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008549	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO19APT008551	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$0	Complete	2019	IA	
HO20APT009144	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$12,000	Complete	2020	IA	
HO20APT009143	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$12,000	Complete	2020	IA	
HO20APT009142	SEPC	A	PERMANENT	1				0.00	0.00	0.00	0.23	0.00		0.23	\$12,000	Complete	2020	IA	
HO19APT008557	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008563	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$5,700	Complete	2019	IA	
HO19APT008559	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008558	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008561	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008556	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$14,000	Complete	2019	IA	
HO19APT008568	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008562	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO20APT009151	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO19APT008560	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008569	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008567	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008564	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008566	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO19APT008565	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$0	Complete	2019	IA	
HO20APT009145	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009146	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009147	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009152	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009155	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009148	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009149	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009150	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009154	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	
HO20APT009153	SEPD	A	PERMANENT	1				0.00	0.00	0.00	0.16	0.00		0.16	\$12,000	Complete	2019	IA	

C0337 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS								0.00	0.00	0.00	0.00			0.00	\$13,911,656	Complete	2020	Flood control, flood damage repair, public education and outreach, historic preservation	This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat.
C0337 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS								0.00	0.00	0.00	0.00			0.00	\$22,545,670	Under Construction	2021	Flood control, flood damage repair, public education and outreach, historic preservation	This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat.
C0337 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS								0.00	0.00	0.00	0.00			0.00	\$80,150,753	Design	2022	Flood control, flood damage repair, public education and outreach, historic preservation	This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat.
C0337 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS								0.00	0.00	0.00	0.00			0.00	\$18,530,000	Planning	2023	Flood control, flood damage repair, public education and outreach, historic preservation	This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat.
C0337 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS								0.00	0.00	0.00	0.00			0.00	\$10,000,000	Planning	2024	Flood control, flood damage repair, public education and outreach, historic preservation	This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat.
D1124 Drainage Improvement Program								0.00	0.00	0.00	0.00			0.00	\$550,000	Design	2022	Drainage improvement	A project for the design and construction of small to medium-sized drainage improvements requested by County residents and the Bureau of Highways.
D1124 Drainage Improvement Program								0.00	0.00	0.00	0.00			0.00	\$250,000	Planning	2024	Drainage improvement	A project for the design and construction of small to medium-sized drainage improvements requested by County residents and the Bureau of Highways.
D1124 Drainage Improvement Program								0.00	0.00	0.00	0.00			0.00	\$550,000	Planning	2026	Drainage improvement	A project for the design and construction of small to medium-sized drainage improvements requested by County residents and the Bureau of Highways.
D-1158 WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$118,737	Complete	2018	post-flood stream assessments, CLOMR reviews, public outreach and education, MS4 credit calculations	This project is for design and construction of stormwater facility improvements. The project will include NPDES stormwater management implementation requirements, floodplain studies, including retrofitting of stormwater management ponds, restoration and certification of detention basins, continued improvement of flood alert systems, streambank restoration including bio-engineering, water quality devices (such as wetlands), storm drainage and storm drain outfall stabilization, channel restoration and water quality monitoring studies.
D-1158 WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,177,938	Complete	2019	CBT Grant Monitoring, mitigation monitoring, drainage studies and improvements, stream inspections, elevation certificates, public outreach and education, FEMA map revisions, on-site GIS support services, mylar preparation and housekeeping	This project is for design and construction of stormwater facility improvements. The project will include NPDES stormwater management implementation requirements, floodplain studies, including retrofitting of stormwater management ponds, restoration and certification of detention basins, continued improvement of flood alert systems, streambank restoration including bio-engineering, water quality devices (such as wetlands), storm drainage and storm drain outfall stabilization, channel restoration and water quality monitoring studies.
D-1158 WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$158,503	Complete	2020	CBT Grant Monitoring, mitigation monitoring, drainage studies and improvements, stream inspections, mylar preparation and housekeeping, debris removal from streams	This project is for design and construction of stormwater facility improvements. The project will include NPDES stormwater management implementation requirements, floodplain studies, including retrofitting of stormwater management ponds, restoration and certification of detention basins, continued improvement of flood alert systems, streambank restoration including bio-engineering, water quality devices (such as wetlands), storm drainage and storm drain outfall stabilization, channel restoration and water quality monitoring studies.
D-1158 WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$199,061	Under Construction	2021	stream inspections, FEMA map revisions, on-site GIS support	This project is for design and construction of stormwater facility improvements. The project will include NPDES stormwater management implementation requirements, floodplain studies, including retrofitting of stormwater management ponds, restoration and certification of detention basins, continued improvement of flood alert systems, streambank restoration including bio-engineering, water quality devices (such as wetlands), storm drainage and storm drain outfall stabilization, channel restoration and water quality monitoring studies.

D-1159 STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$701,228	Complete	2018	Centennial Lake maintenance, post-fold pond repair (Ellicott Woods)	A fund for Howard County to undertake construction or repairs to stormwater management on an as-needed basis meeting the provisions of the County Code. This program is envisioned to provide rapid assistance in emergency situations.
D-1159 STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,934,187	Complete	2019	pond repairs, post-storm clean up	A fund for Howard County to undertake construction or repairs to stormwater management on an as-needed basis meeting the provisions of the County Code. This program is envisioned to provide rapid assistance in emergency situations.
D-1159 STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,864,093	Complete	2020	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as-needed basis meeting the provisions of the County Code. This program is envisioned to provide rapid assistance in emergency situations.
D-1159 STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$85,149	Under Construction	2021	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as-needed basis meeting the provisions of the County Code. This program is envisioned to provide rapid assistance in emergency situations.
D1160 STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$32,207	Complete	2018	pond repairs, public outreach and education	A project for the retrofit of stormwater management facilities to include water quality management.
D1160 STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$66,280	Complete	2019	public outreach and education, CMAC study	A project for the retrofit of stormwater management facilities to include water quality management.
D1160 STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$367,000	Under Construction	2021	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1161 SHAFFERSVILLE ROAD CULVERT REPLACEMENT								0.00	0.00	0.00	0.00			0.00	\$900,000	Planning	2025	replace existing culverts	A project to replace the existing culverts on Shaffersville Road (between Florence Road and Shaffers Mill Road) and on Shaffers Mill Road between Shaffersville Road and Florence Road.
D-1165 Ellicott City Flood Mitigation & Stormwater Enhancements								0.00	0.00	0.00	0.00			0.00	\$1,021,549	Complete	2018	drainage and culvert improvements, post-storm H&H studies, flood repair support	Ellicott City Flood Mitigation & Stormwater Enhancements
D-1165 Ellicott City Flood Mitigation & Stormwater Enhancements								0.00	0.00	0.00	0.00			0.00	\$5,305,915	Complete	2019	drainage and culvert improvements, wall repairs, debris removal, USACE peer review, property acquisitions for floodplain preservation and hazard mitigation, permitting support, retrofit studies, New Cut Road repair	Ellicott City Flood Mitigation & Stormwater Enhancements
D-1165 Ellicott City Flood Mitigation & Stormwater Enhancements								0.00	0.00	0.00	0.00			0.00	\$5,317,776	Complete	2020	debris removal, drainage improvement, New Cut Road repair	Ellicott City Flood Mitigation & Stormwater Enhancements
D-1165 Ellicott City Flood Mitigation & Stormwater Enhancements								0.00	0.00	0.00	0.00			0.00	\$1,657,000	Under Construction	2021	property acquisitions for floodplain preservation and hazard mitigation, drainage improvement	Ellicott City Flood Mitigation & Stormwater Enhancements
D-1165 Ellicott City Flood Mitigation & Stormwater Enhancements								0.00	0.00	0.00	0.00			0.00	\$100,000	Planning	2022	drainage improvement support	Ellicott City Flood Mitigation & Stormwater Enhancements
D1168 MORGAN WOODBINE ROAD SLOPE STABILIZATION								0.00	0.00	0.00	0.00			0.00	\$225,000	Complete	2019	stabilization of the roadway embankment	A project to design and construct stabilization of the roadway embankment of Morgan Woodbine Road adjacent to the South Branch of the Patapsco River.
D1168 MORGAN WOODBINE ROAD SLOPE STABILIZATION								0.00	0.00	0.00	0.00			0.00	\$700,000	Planning	2027	stabilization of the roadway embankment	A project to design and construct stabilization of the roadway embankment of Morgan Woodbine Road adjacent to the South Branch of the Patapsco River.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,250,000	Complete	2021	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,250,000	Design	2022	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,250,000	Planning	2023	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,250,000	Planning	2024	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,100,000	Planning	2025	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,350,000	Planning	2026	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.
D1169 STORM DRAIN CULVERT REPLACEMENT PROGRAM								0.00	0.00	0.00	0.00			0.00	\$2,300,000	Planning	2027	repairs	This program will provide for the repair and replacement of failed storm drain pipes and culverts.

D1175 VALLEY MEDE/CHATHAM FLOOD MITIGATION								0.00	0.00	0.00	0.00			0.00	\$1,517,203	Complete	2019	drainage improvement, flood mitigation, property acquisition for floodplain preservation, public safety, and hazard mitigation	This project is for the study, design and construction of flood mitigation and stormwater waterway improvement efforts in the Valley Mede and Chatham subwatersheds.
D1175 VALLEY MEDE/CHATHAM FLOOD MITIGATION								0.00	0.00	0.00	0.00			0.00	\$1,343,844	Complete	2020	drainage improvement, flood mitigation, property acquisition for floodplain preservation, public safety, and hazard mitigation	This project is for the study, design and construction of flood mitigation and stormwater waterway improvement efforts in the Valley Mede and Chatham subwatersheds.
D1175 VALLEY MEDE/CHATHAM FLOOD MITIGATION								0.00	0.00	0.00	0.00			0.00	\$1,494,792	Under Construction	2021	drainage improvement, flood mitigation, property acquisition for floodplain preservation, public safety, and hazard mitigation	This project is for the study, design and construction of flood mitigation and stormwater waterway improvement efforts in the Valley Mede and Chatham subwatersheds.
D1175 VALLEY MEDE/CHATHAM FLOOD MITIGATION								0.00	0.00	0.00	0.00			0.00	\$2,200,000	Design	2022	drainage improvement, flood mitigation	This project is for the study, design and construction of flood mitigation and stormwater waterway improvement efforts in the Valley Mede and Chatham subwatersheds.
D1175 VALLEY MEDE/CHATHAM FLOOD MITIGATION								0.00	0.00	0.00	0.00			0.00	\$3,200,000	Design	2023	drainage improvement, flood mitigation	This project is for the study, design and construction of flood mitigation and stormwater waterway improvement efforts in the Valley Mede and Chatham subwatersheds.
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$162,233	Complete	2020	on-site consultant support	This project is for design and construction of stormwater facility improvements.
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$865,009	Under Construction	2021	on-site consultant support, drainage improvement, utility relocations, elevation certificates, public outreach and education, stream monitoring, woody debris removal	This project is for design and construction of stormwater facility improvements.
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$300,000	Design	2022	on-site consultant support, stream monitoring, woody debris removal	This project is for design and construction of stormwater facility improvements.
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,200,000	Planning	2026	various restoration, maintenance, repair projects	
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,200,000	Planning	2027	various restoration, maintenance, repair projects	
D1176-WATERSHED MANAGEMENT CONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,200,000	Planning	2028	various restoration, maintenance, repair projects	
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$155,919	Complete	2020	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$929,441	Under Construction	2021	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$6,400,000	Design	2022	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,700,000	Planning	2023	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$4,600,000	Planning	2024	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$1,500,000	Planning	2025	pond repairs	A fund for Howard County to undertake construction or repairs to stormwater management on an as needed basis meeting the provisions of the County Code.
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$7,000,000	Planning	2026	pond repairs	
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$7,000,000	Planning	2027	pond repairs	
D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION								0.00	0.00	0.00	0.00			0.00	\$7,000,000	Planning	2028	pond repairs	
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$31,620	Complete	2019	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$24,525	Complete	2020	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$300,000	Design	2022	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$300,000	Planning	2023	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.

D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2024	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2025	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2026	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2027	pond repairs	A project for the retrofit of stormwater management facilities to include water quality management.
D1178-STORMWATER MANAGEMENT RETROFITS								0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2028	pond repairs	
D1180 TIBER WATERSHED IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$500,000	Design	2021	various restoration, maintenance, repair projects	A project for the design and construction of varying sized drainage and stormwater management projects within the Tiber Watershed.
D1180 TIBER WATERSHED IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$500,000	Planning	2024	various restoration, maintenance, repair projects	A project for the design and construction of varying sized drainage and stormwater management projects within the Tiber Watershed.
D1181 PLUM TREE WATERSHED IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$400,000	Design	2021	various restoration, maintenance, repair projects	A project for the design and construction of varying sized drainage and stormwater management projects within the Plum Tree Watershed.
D1181 PLUM TREE WATERSHED IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$400,000	Planning	2023	various restoration, maintenance, repair projects	A project for the design and construction of varying sized drainage and stormwater management projects within the Plum Tree Watershed.
D1182 ORCHARD RIDGE DRAINAGE IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$575,000	Under Construction	2021	various restoration, maintenance, repair projects	This project is for the design and construction of drainage and stormwater managementv improvements in the Orchard Ridge community.
D1182 ORCHARD RIDGE DRAINAGE IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$500,000	Planning	2022	various restoration, maintenance, repair projects	This project is for the design and construction of drainage and stormwater managementv improvements in the Orchard Ridge community.
D1182 ORCHARD RIDGE DRAINAGE IMPROVEMENTS								0.00	0.00	0.00	0.00			0.00	\$350,000	Planning	2023	various restoration, maintenance, repair projects	This project is for the design and construction of drainage and stormwater managementv improvements in the Orchard Ridge community.
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$265,936	Complete	2019		
GIS Support								0.00	0.00	0.00	0.00			0.00	\$47,160	Complete	2019		
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Complete	2019		
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Complete	2020		
GIS Support								0.00	0.00	0.00	0.00			0.00	\$413,244	Complete	2020		
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Complete	2020		
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Under Construction	2021		
GIS Support								0.00	0.00	0.00	0.00			0.00	\$300,000	Under Construction	2021		
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Under Construction	2021		
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2022		
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2022		
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2022		
GIS Support								0.00	0.00	0.00	0.00			0.00	\$205,000	Planning	2022		
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2022		
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2022		
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2022		
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2022		
PCB Implementation Plan								0.00	0.00	0.00	0.00			0.00	\$68,000	Under Construction	2022	PCB	
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2022		
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2022		
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2023		
Bacteria Monitoring 2021-2022								0.00	0.00	0.00	0.00			0.00	\$100,000	Planning	2023	bacteria	
Bacteria Monitoring Plan								0.00	0.00	0.00	0.00			0.00	\$10,000	Planning	2023	bacteria	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2023		
CIS 2023 Update (Annual Countywide Stormwater TMDL Implementation Plan)								0.00	0.00	0.00	0.00			0.00	\$100,000	Planning	2023		
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2023		
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2023		
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2023		
IDDE SOPs								0.00	0.00	0.00	0.00			0.00	\$10,000	Planning	2023		
Litter Control Program								0.00	0.00	0.00	0.00			0.00	\$10,000	Planning	2023		

Monitoring tasks								0.00	0.00	0.00	0.00			0.00	\$255,000	Complete	2020	
Monitoring tasks								0.00	0.00	0.00	0.00			0.00	\$50,000	Planning	2023	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2023	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2023	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2023	
PCB Initial Monitoring								0.00	0.00	0.00	0.00			0.00	\$50,000	Planning	2023	PCB
Pooled Monitoring								0.00	0.00	0.00	0.00			0.00	\$250,000	Planning	2023	
Public Outreach								0.00	0.00	0.00	0.00			0.00	\$25,000	Planning	2023	
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2023	
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2023	
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2024	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2024	
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2024	
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2024	
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2024	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2024	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2024	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2024	
PCB Secondary Monitoring								0.00	0.00	0.00	0.00			0.00	\$150,000	Planning	2024	PCB
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2024	
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2024	
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2025	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2025	
Easement Research & GIS								0.00	0.00	0.00	0.00			0.00	\$500,000	Planning	2025	
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2025	
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2025	
Good Housekeeping Plans								0.00	0.00	0.00	0.00			0.00	\$100,000	Planning	2025	
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2025	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2025	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2025	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2025	
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2025	
Salt Management Plan								0.00	0.00	0.00	0.00			0.00	\$100,000	Planning	2025	
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2025	
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2026	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2026	
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2026	
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2026	
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2026	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2026	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2026	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2026	
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2026	
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2026	
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2027	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2027	
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2027	
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2027	
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2027	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2027	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2027	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2027	
Rain Barrel supplies								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2027	
Watershed Enhancement Grants								0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2027	
Annual Report Support								0.00	0.00	0.00	0.00			0.00	\$125,000	Planning	2028	
BMP Inspection Services, supplies and vehicles								0.00	0.00	0.00	0.00			0.00	\$627,000	Planning	2028	
Flood Warning System								0.00	0.00	0.00	0.00			0.00	\$92,000	Planning	2028	
GIS Support								0.00	0.00	0.00	0.00			0.00	\$130,000	Planning	2028	
IDDE - consultant								0.00	0.00	0.00	0.00			0.00	\$35,000	Planning	2028	
NPDES Monitoring								0.00	0.00	0.00	0.00			0.00	\$219,000	Planning	2028	
On-Site Consultants								0.00	0.00	0.00	0.00			0.00	\$200,000	Planning	2028	
Opti contract								0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2028	

Rain Barrel supplies							0.00	0.00	0.00	0.00			0.00	\$5,000	Planning	2028		
Storm Drain System Verification							0.00	0.00	0.00	0.00			0.00	\$1,100,000	Planning	2028		
Watershed Enhancement Grants							0.00	0.00	0.00	0.00			0.00	\$160,000	Planning	2028		
Subtotal Other (up to 2026)			398				0.4	0.0	4.6	8.9	0.2	0.0	9.1	\$249,550,236				
Total for Next Permit (up to 2026)			582				4,204.6	11,173,850.7	7,179.9	1,341.6	3.5	0.0	1,345.0	\$340,392,206				
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Total for Next Permit and Projected Years			582				4,204.6	11,173,850.7	7,179.9	1,343.6	3.5	0.0	1,347.0	\$367,088,206				
Total for Remaining Obligations from The Previous			5,401				5,671.5	11,613,917.7	9,222.6	1,901.0	3.5	0.0	1,904.5	\$340,867,206				
Total for Remaining Obligations from The Previous			5,401				5,671.5	11,613,917.7	9,222.6	1,903.0	3.5	0.0	1,906.5	\$367,563,206				

SECTION 4:
FINANCIAL CAPACITY ANALYSIS

Howard County, Maryland
Maximum Extent Practicable (MEP) Analysis
Financial Capacity Analysis

July 7, 2021

Evaluating the financial capacity of a local jurisdiction to perform all stormwater services, is an important factor in determining the maximum extent practicable (MEP) level of implementation for Phase I Medium municipal separate storm sewer system (MS4) permittees. A jurisdiction's financial capacity can be informed by characterizing the economic conditions of the community, estimating the per household municipal costs and expenditures, and characterizing the financial wherewithal of its government to pay for stormwater-related services.

Howard County's sources of revenue used to pay for stormwater-related services include a combination of a dedicated fee; general property and income tax revenues; grants and loans; and bond sales. Adequately managing these funding sources is critical to the level of stormwater services provided. The data shown in the Financial Capacity Analysis (FCA) spreadsheet (Attachment 6) and the narrative responses to the questions below help describe Howard County's MEP for performing stormwater-related services; economic status and its ability to afford these services; and its capacity to generate funds for these services.

1. What was the prior per household municipal cost of stormwater services and restoration activities for a jurisdiction's residents?

This cost includes the past restoration costs and the costs of infrastructure maintenance and repair, inspection and education program costs - both capital and operational.

a. What was the estimated annual municipal cost of providing stormwater-related management services to residential customers?

The estimated average annual municipal cost of providing stormwater-related management services to residential customers was \$42,608,400.75 (FCA 2c). The municipal annual cost per household for stormwater-related services provided to the residential community in the past 5-year permit term was \$373.20 (FCA 2d), which is 0.31% (FCA 2e) of the median household income value of \$121,160 (MHI) (FCA 2a).

The percent of income for low income households spent on public stormwater-related management programs was 1.49% (FCA 4b), which disproportionately impacts lower income households.

b. What is the estimated annual cost of the stormwater remediation fee to residential customers?

Residents were charged a Watershed Protection and Restoration Fee averaging \$40.17 per household annually (FCA 2f), which is 0.03% (FCA 2g) of the median household income (MHI) (FCA 2a).

The percent of income for low income households spent on stormwater remediation fees was 0.16% (FCA 4c), which disproportionately impacts lower income households.

c. What was the annual cost of the impervious surface restoration plan (ISRP) to residential customers?

The total cost of the ISRP during the previous permit term was \$56,836,251 (FCA 3a), and the average annual cost was \$5,982,763.26 (FCA 3b). The annual cost of the ISRP per household was \$52.40 (FCA 3c), which is approximately 0.04% of MHI (FCA 3d).

The percent of income for low income households spent on ISRP was 0.21% (FCA 4d), which disproportionately impacts lower income households.

d. What is the projected annual cost of the proposed restoration portfolio to residential customers?

The projected total cost of the proposed restoration portfolio is \$340,867,206 (FCA 3e), and the projected average annual cost is \$42,608,400.75 (FCA 3f). The projected annual restoration portfolio cost that may be paid by each household is \$373.20 (FCA 3g), which is 0.31% of the MHI (FCA 3h). The percent of MHI for low income households projected to be spent on the cost of the restoration portfolio is 1.49% (FCA 4e), which disproportionately impacts lower income households.

The percent of MHI for the previous permit term's ISRP, 0.04% (FCA 3d), is less than the percent of MHI for the proposed restoration portfolio, 0.31% (FCA 3h).

2. How do socioeconomic factors characterize the economic health of a jurisdiction? Are there indications that there are vulnerable populations in a jurisdiction that need to be considered?

Information on income distribution in a jurisdiction can be used to determine if lower income populations are disproportionately impacted by the costs of stormwater services. Household income statistics are broken down in the Census Data to help with this evaluation. While this low income indicator is important, many jurisdictions have programs to reduce the cost of these stormwater services.

a. How does the percent unemployed compare to the national average?

An unemployment percentage of greater than 1% above the national average is a local economic indicator that helps to show how stormwater costs may impact the unemployed. This 1% parameter comes from the U.S. Environmental Protection Agency's 1997 "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development"⁴ (hereafter referred to as EPA's CSO Guidance).

Because the percent unemployed in Howard County is 2.7% (FCA 5a), which is the same as the national average reported in the American Community Survey (ACS), the unemployed do not appear to be disproportionately impacted by stormwater costs.

b. How does the MHI compare to the national average?

Although the MHI does not specifically represent impacts of costs on lower income residents, comparing the MHI to the national average shows the overall earning capacity in a jurisdiction and provides additional information on the economic conditions of the residential community. According to the EPA's CSO Guidance, if the MHI of the community is more than 25% below the national average, the community would be considered economically vulnerable.

Howard County's MHI is \$121,160 (FCA 2a and 5b), which is 193% greater than the national average of \$62,843.00.

c. What is the percentage of individuals below the poverty level and how does it compare to the national average?

The U.S. Census Bureau uses family size and income thresholds to determine estimates for the percentage of families and people whose income is below the poverty level. This information can be used to describe the percentage of individuals in a jurisdiction that are below the poverty level compared to the national average. Percentages greater than 1% above the national average may indicate that a jurisdiction has a greater number of residents in poverty.

The percentage of individuals below the poverty level in Howard County is 5% (FCA 5c), which is less than half of the national average of 13.4%.

d. Are there any methods in place to reduce the annual cost of public stormwater-related services? Is a method in place to reduce the annual cost of stormwater-related services for low income residential customers?

Based on the answers in questions 1a, 1b, 1c, and 1d of this document, the costs on low income residents for providing stormwater-related services may be a large percentage of household income. Using the answers to questions 2a and 2c of this document, as well as the calculated cost for stormwater-related services on low income residents, describe all methods in place to reduce the cost on vulnerable populations. Additionally, have fee reduction requests from low income households impacted water or stormwater service revenues?

Howard County has been and continues to actively pursue state and federal grants to fund stormwater-related projects and services. Since taking office, County Executive Ball has worked with partners at the state and federal level to secure more than \$16 million in funding for the Ellicott City Safe and Sound flood mitigation plan (<https://www.ecsafeandsound.org/flood-mitigation-options>).

The State and Federal grants provide for additional public improvements without additional debt burdens on County residents. The County also offers Watershed Protection Fee Hardship Tax Credit which provides for a 60% credit of the fee.

3. What is the financial capacity of a jurisdiction to borrow additional funds for stormwater-related management programs?

The ability of a jurisdiction to borrow additional funds can provide further information on how stormwater-related cost represents the community's MEP. The General Obligation (GO) and revenue bond ratings as well as the net debt as a percentage of full market property value (FMPV) all indicate how a jurisdiction fares in reference to debt. Known as debt burden, this information can characterize a jurisdiction's ability to issue additional debt to finance stormwater-related services.

a. Does the GO bond rating indicate a strong borrowing capacity?

GO bond ratings represent the ability of a jurisdiction to repay its debt. GO bond debt is paid by revenue from taxes (usually local property taxes). Revenue from the sale of GO bonds are the primary long-term

debt funding mechanism of a community. Moody's ratings of Aaa, Aa, and A, or Standard & Poor's ratings of AAA, AA, and A indicate a financially stable jurisdiction.

Howard County has a Aaa GO bond rating (FCA 6a), a strong borrowing capacity and ability to repay its debt.

b. Does the revenue bond rating indicate a strong borrowing capacity?

Revenue bond ratings reflect the financial conditions and management of a jurisdiction. These bonds are repaid from revenue generated from user or service fees. Moody's ratings of Aaa, Aa, and A, or Standard & Poor's ratings of AAA, AA, and A indicate a financially stable jurisdiction.

Howard County does not have a revenue bond rating (FCA 6b).

c. Have either one of the bond ratings impacted past borrowing capacity and is there a potential for impacts to future borrowing?

A strong borrowing capacity will indicate a jurisdiction's ability to sufficiently borrow funds to pay for stormwater-related services. A weaker borrowing capacity will show a jurisdiction may be limited in the ability to increase debt to fund additional projects. Based on the bond ratings, jurisdictions should explain how borrowing during the previous permit term was impacted by bond ratings. The jurisdiction should also explain how borrowing during the next permit term could be impacted by current bond ratings.

Howard County has received the highest possible credit rating, AAA, from all three bond rating agencies for 24 consecutive years. This acknowledges the County's sizable and wealthy tax base, sound fiscal policies, and fiscal management. As all three credit rating agencies provided a stable outlook, the County continues to take a conservative and prudent approach, adhering to its policies, and does not anticipate any negative impacts to future borrowing.

d. Net debt as a percentage of FMPV?

Net debt is debt repaid by property taxes. The FMPV is the price a willing buyer would pay for real property and in this context it represents the full market value of real property in the jurisdiction. The calculated net debt as a percentage of FMPV provides a measurement of the debt burden on residents. It accounts for all debt issued by the jurisdiction and can be compared to a benchmark found in EPA's CSO Guidance to serve as an indicator of financial stability.

Howard County has a net debt as a percentage of FMPV of 2.29% (FCA 6c). The County Charter limits outstanding general county debt to 4.8% of the assessed value of real and personal property. This measure is also included in S&P and Moody's credit rating criteria. Howard County continues to adhere to its Debt Management policy, with net debt well below the 4.8% limit.

4. How great is the tax burden on existing properties within the community?

Financial management indicators help determine how great the tax burden is on existing properties within the community. These indicators can show whether a jurisdiction has a relatively high or low tax rate, which would indicate potential for concern if additional fees are added.

a. What is the property tax revenue collection rate and does it indicate a large amount of contributions from the tax base?

The property tax revenue collection rate serves as a measurement of tax collection system performance and residents' acceptance of tax levels. The rate can be compared to an EPA CSO Guidance benchmark to indicate performance. A collection rate above 98% would be indicative of strong performance. A poor collection rate would be indicative of a tax structure that is burdensome on the residential population of the jurisdiction.

The property tax revenue collection rate for Howard County is 99.25% (FCA 6e), indicating a large amount of contributions from the tax base.

b. Do the property tax revenues as a percentage of FMPV indicate that additional fees would cause an increased strain on the community?

The property tax revenues as a percentage of FMPV can be used to characterize the financial ability of a jurisdiction to support debt. This comparison also provides information on how effective the local government is in providing services. A value below 2% indicates a financially strong community.

The property tax revenues as a percentage of FMPV for Howard County is 1.22% (FCA 6d), indicating a financially strong community.

ATTACHMENT 1:
PROJECT SCHEDULE

ATTACHMENT 2:
CAPITAL BUDGET FY2022

Project: C0337-FY2014 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS

Description

This is a project to provide a variety of repairs and improvements to public infrastructure and address other community improvements and to make improvements to the downtown and historic district of the Howard County Seat. This project may include land acquisition for water quality and drainage needs and other public improvements.

Justification

Community has requested improvements to the downtown Ellicott City area for flood mitigation. The work effort will be done to implement the Safe and Sound Plan.

Remarks

- 1.TAO #3 - 2014 current pending legislation will add \$100,000 grant funding for Ellicott City Streetscape program.
- 2.Construction of some projects may be dependent on the donation of the necessary easements and-or property owner cost share participation.
3. OTHER SOURCES revenue represents homeowner contribution
- 4.WATER QUALITY LOANS represents Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) loan, which has a 30-year term, favorable rate and debt payment start date of 5 years after loan closing.
5. GRANT represents anticipated FEMA and State funding for Ellicott City.
- 6.Project implementation of the various improvements included in the Safe and Sound Plan may be adjusted depending on contract negotiations, land acquisition success and regulations|permit approvals.

Project Schedule

FY22 - Construction: Pond H7, Quaker Mill pond, Maryland Avenue culverts, lower Main Street building work.

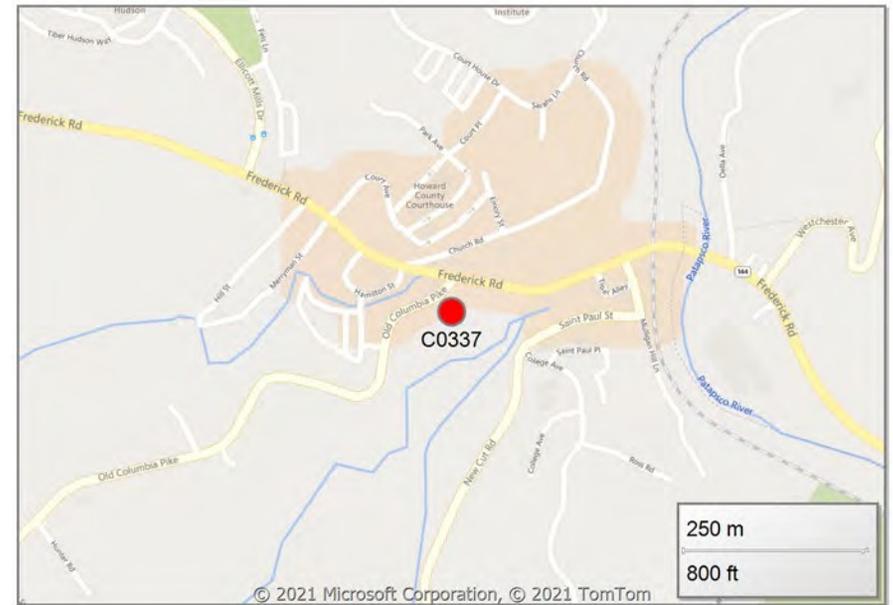
FY22 - Design: North tunnel and NC-3 pond.

Continue building acquisition-removal of those in most vulnerable areas (as needed).

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	3,336,667
FY2022 Bonds - 20-Year Total Debt Service Payment	66,733,343
Total Project Bonds - Annual Debt Service Payment	7,923,679
Total Project Bonds - 20-Year Total Debt Service Payment	158,473,583



Explanation of Changes

Scope definition and timeline of project account for cost increase.

Fiscal 2022 Capital Budget

GENERAL COUNTY PROJECTS

Project: C0337-FY2014 ELLICOTT CITY IMPROVEMENTS and ENHANCEMENTS

(In Thousands)	Five Year Capital Program									Master Plan				
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	8,450	1,000	9,450	0	0	0	0	0	0	0	0	0	0	9,450
LAND ACQUISITION	18,600	0	18,600	1,600	0	0	0	0	1,600	0	0	0	0	20,200
CONSTRUCTION	30,621	88,820	119,441	16,930	10,500	0	0	0	27,430	0	0	0	0	146,871
ADMINISTRATION	400	0	400	0	0	0	0	0	0	0	0	0	0	400
Total Expenditures	58,071	89,820	147,891	18,530	10,500	0	0	0	29,030	0	0	0	0	176,921
BONDS	38,675	0	38,675	3,530	10,500	0	0	0	14,030	0	0	0	0	52,705
DEVELOPER CONTRIBUTION	165	0	165	0	0	0	0	0	0	0	0	0	0	165
GRANTS	16,726	8,870	25,596	0	0	0	0	0	0	0	0	0	0	25,596
OTHER SOURCES	5	0	5	0	0	0	0	0	0	0	0	0	0	5
PAY AS YOU GO	1,000	5,950	6,950	15,000	0	0	0	0	15,000	0	0	0	0	21,950
WATER QUALITY STATE OR FED LOAN	0	75,000	75,000	0	0	0	0	0	0	0	0	0	0	75,000
STORMWATER UTILITY FUNDING	1,500	0	1,500	0	0	0	0	0	0	0	0	0	0	1,500
Total Funding	58,071	89,820	147,891	18,530	10,500	0	0	0	29,030	0	0	0	0	176,921

\$34,233,369 spent and encumbered through February 2021

\$28,570,917 spent and encumbered through February 2020

Project Status TAO#1-2019 Transfer in \$15,981,000

Design - Parking Lot F imprv, Ellicott Mills Dr WQ bumpout, Main St crosswalks, H4 and NC-3 ponds, Maryland Avenue culverts, North Tunnel (preliminary engineering).

Construction complete - Parking Lot E improvements (partial funding), wall repairs for Court Ave, Tonge Row, Lot E northeast corner, Precious Gifts, Main St at 84" culvert, Main St repaving, Courthouse Dr slope repair, Fels La drainage improvements, Ellicott Mills Dr roadway replacement, Rogers Ave storm drain improvements, St. Luke Church slope, relocation of log cabin, miscellaneous sidewalk repairs, stabilization of Caplans.

Other - Stream wall inspections, acquisition and stabilization process in the most vulnerable areas, St Luke Church slope repair.

FY 2021 Budget	58,071	2,000	60,071	55,100	1,450	0	29,550	1,000	87,100	13,000	0	0		160,171
Difference 2021 / 2022	0	87,820	87,820	(36,570)	9,050	0	(29,550)	(1,000)	(58,070)	(13,000)	0	0	0	16,750

Scope definition and timeline of project account for cost increase.

March 29, 2021

Howard County, MD

Version : Executive Proposed

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1124-FY2007 DRAINAGE IMPROVEMENT PROGRAM

Description

A project for the design and construction of small to medium-sized drainage improvements requested by County residents and the Bureau of Highways.

Justification

Create improved drainage to safely convey surface runoff, to stop flow onto residential properties or to protect the traveled way.

Remarks

- 1.SDFUND represents Storm Drainage developer contributions derived as a result of 16.133e of the County Code.
- 2.Construction of some projects may be dependent upon donation of the necessary easements and-or resident cost share participation.
- 3.After initial investigation, projects over \$250,000 in construction costs may be split out as a separate Capital Project.
4. OTHER funds are resident cost share.
- 5.Prior to FY20, project included assistance with debris removal and assessment of flood mitigation opportunities in the Allview area.
6. Funding request represents program advancement.

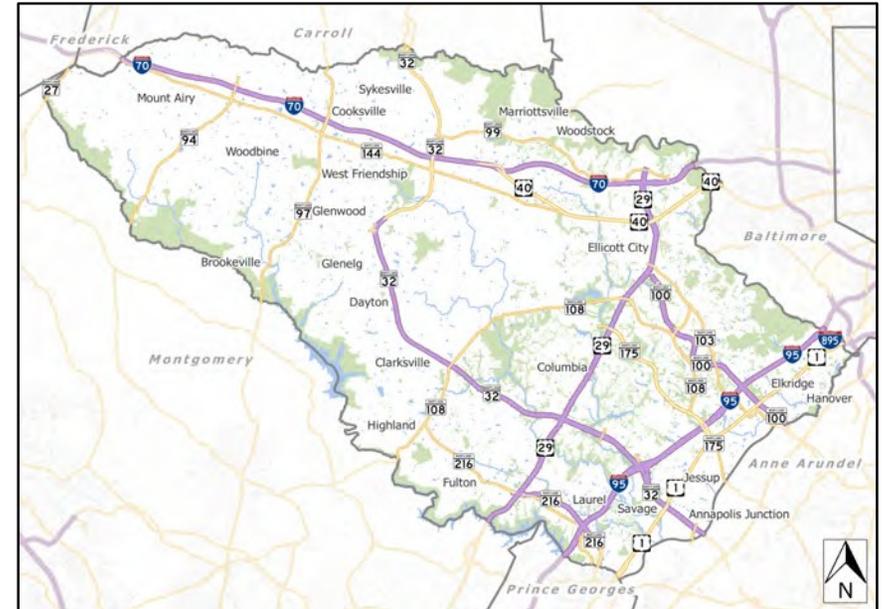
Project Schedule

Program

Operating Budget Impact

Estimated annual maintenance costs upon completion: Decrease.

FY2022 Bonds - Annual Debt Service Payment	41,995
FY2022 Bonds - 20-Year Total Debt Service Payment	839,902
Total Project Bonds - Annual Debt Service Payment	337,870
Total Project Bonds - 20-Year Total Debt Service Payment	6,757,396



Explanation of Changes

Cost decrease reflects programming actual projects in out years.

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1124-FY2007 DRAINAGE IMPROVEMENT PROGRAM

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	1,555	120	1,675	0	40	0	120	0	160	0	0	0	0	1,835
LAND ACQUISITION	195	20	215	0	10	0	20	0	30	0	0	0	0	245
CONSTRUCTION	2,750	410	3,160	0	200	0	410	0	610	0	0	0	0	3,770
ADMINISTRATION	10	0	10	0	0	0	0	0	0	0	0	0	0	10
Total Expenditures	4,510	550	5,060	0	250	0	550	0	800	0	0	0	0	5,860
BONDS	3,075	550	3,625	0	250	0	550	0	800	0	0	0	0	4,425
OTHER SOURCES	10	0	10	0	0	0	0	0	0	0	0	0	0	10
PAY AS YOU GO	250	0	250	0	0	0	0	0	0	0	0	0	0	250
STORM DRAINAGE FUND	1,175	0	1,175	0	0	0	0	0	0	0	0	0	0	1,175
Total Funding	4,510	550	5,060	0	250	0	550	0	800	0	0	0	0	5,860

\$3,376,460 spent and encumbered through February 2021

\$3,364,023 spent and encumbered through February 2020

Project Status FY21 - There are several requests waiting to be started and will be addressed in turn as other work is completed.

Investigation underway: Sylvan Lane (N. of Church Rd), Hyla Brook, 11000 blk Triadelphia Rd.

Investigation complete: Watch Chain Way, Hale Haven improvements, Lime Kiln Rd Culvert, Gudel Drive, Windermere, Walker Drive, Deerfield, Harriett Tubman

Design and/or Land acquisition in progress: Globe Drive improvements, 7300 block of Montgomery Road easement.

Construction complete: Woodside Court, Fels Lane, Ordway Drive, Frederick Rd Slope, Maple Rock Drive, Frederick Road slope, US 40 Landscaping, Little Patuxent and Allview Debris Removal, Cradlerock Way channel wall, Abel St (Phase I and 2), Montgomery Road, Patuxent Range Road, Beechfield Avenue.

FY 2021 Budget	4,510	675	5,185	0	675	0	675	0	1,350	0	0	0		6,535
Difference 2021 / 2022	0	(125)	(125)	0	(425)	0	(125)	0	(550)	0	0	0	0	(675)

March 25, 2021

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STORM DRAINAGE PROJECTS

Project: D1148-FY2007 NPDES WATERSHED MANAGEMENT PROGRAM

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	6,720	300	7,020	300	300	0	0	0	600	0	0	0	0	7,620
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Expenditures	6,720	300	7,020	300	300	0	0	0	600	0	0	0	0	7,620
BONDS	3,780	0	3,780	0	0	0	0	0	0	0	0	0	0	3,780
OTHER SOURCES	0	300	300	300	300	0	0	0	600	0	0	0	0	900
PAY AS YOU GO	650	0	650	0	0	0	0	0	0	0	0	0	0	650
STORMWATER UTILITY FUNDING	2,290	0	2,290	0	0	0	0	0	0	0	0	0	0	2,290
Total Funding	6,720	300	7,020	300	300	0	0	0	600	0	0	0	0	7,620

\$6,176,711 spent and encumbered through February 2021

\$5,715,956 spent and encumbered through February 2020

Project Status Performed Upper Little Patuxent Watershed Study. Prepared Watershed Treatment Model and generated input to State WIP II. Performed stormwater utility fund financing study. Performed site assessments for additional BMP implementation. Partially funded Alliance for the Chesapeake Bay (READY) grant. Design ESD BMPs at Rockburn Br. Park. Completed draft and final Countywide Implementation Strategy (CIS) for meeting TMDL commitments and impervious cover treatment requirements. Perform database creation and impervious cover baseline calculations for NPDES reporting requirements. Performed historical BMP cleanup to meet MDE requirements. Performed Little Patuxent & Middle Patuxent Watershed Assessments. Perform Patapsco and Patuxent River watershed assessments. Continued Point of Investigation assessment and reporting required by MDE. Prepared PCB TMDL implementation plan. Updated IDDE and BMP CRM databases. Performed modeling and pollutant load computations for annual report.

FY 2021 Budget	6,720	100	6,820	100	100	100	100	0	400	0	0	0		7,220
Difference 2021 / 2022	0	200	200	200	200	(100)	(100)	0	200	0	0	0	0	400

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STORM DRAINAGE PROJECTS

Project: D1158-FY2008 WATERSHED MANAGEMENT CONSTRUCTION

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	9,300	0	9,300	0	0	0	0	0	0	0	0	0	0	9,300
LAND ACQUISITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONSTRUCTION	40,285	0	40,285	0	0	0	0	0	0	0	0	0	0	40,285
ADMINISTRATION	1,020	0	1,020	0	0	0	0	0	0	0	0	0	0	1,020
Total Expenditures	50,605	0	50,605	0	0	0	0	0	0	0	0	0	0	50,605
BONDS	10,795	0	10,795	0	0	0	0	0	0	0	0	0	0	10,795
DEVELOPER CONTRIBUTION	200	0	200	0	0	0	0	0	0	0	0	0	0	200
GRANTS	12,397	0	12,397	0	0	0	0	0	0	0	0	0	0	12,397
OTHER SOURCES	10,100	0	10,100	0	0	0	0	0	0	0	0	0	0	10,100
PAY AS YOU GO	1,000	0	1,000	0	0	0	0	0	0	0	0	0	0	1,000
STORM DRAINAGE FUND	850	0	850	0	0	0	0	0	0	0	0	0	0	850
WATER QUALITY STATE OR FED LOAN	1,646	0	1,646	0	0	0	0	0	0	0	0	0	0	1,646
STORMWATER UTILITY FUNDING	13,617	0	13,617	0	0	0	0	0	0	0	0	0	0	13,617
Total Funding	50,605	0	50,605	0	0	0	0	0	0	0	0	0	0	50,605

\$48,591,274 spent and encumbered through February 2021

\$49,117,159 spent and encumbered through February 2020

Project Status Des: Sunny Field, Wood Crest, Cherry Tree Farms, Wood Creek, NLCC, Glenmont, Old Willow, Gwynn Pk, Wharff, Yellowbell, Proudfoot Stonehouse, Mellen, Park. Con: Bramhope, Brightwood, Dower, Ducks Foot, Elmmede, Faulkner, Great Drum, Meadowbrook, Old Willow, Paul Mill, Red Hill, Stone Trail, Tall Maple, Threshfield, Tiller, Tuscany, Waverly Woods, Wheatfield, Whiterock, Windflower, Southview, Pinehurst, Dorsey Hall, Bonnie Br, Greenway, Davis Br, Swansfield, HCC, Churchill, Dobbin, Timbers of Troy, Dunloggin, Font Hill Bank, Heatherland, Starling, Woodlot, Maple Dell Farms.

FY 2021 Budget	50,605	0	50,605	0	0	0	0	0	0	0	0	0		50,605
Difference 2021 / 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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STORM DRAINAGE PROJECTS

Project: D1159-FY2007 STORMWATER MANAGEMENT FACILITY RECONSTRUC

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	5,500	0	5,500	0	0	0	0	0	0	0	0	0	0	5,500
LAND ACQUISITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONSTRUCTION	28,125	0	28,125	0	0	0	0	0	0	0	0	0	0	28,125
ADMINISTRATION	1,015	0	1,015	0	0	0	0	0	0	0	0	0	0	1,015
Total Expenditures	34,640	0	34,640	0	0	0	0	0	0	0	0	0	0	34,640
BONDS	15,690	0	15,690	0	0	0	0	0	0	0	0	0	0	15,690
GRANTS	200	0	200	0	0	0	0	0	0	0	0	0	0	200
OTHER SOURCES	400	0	400	0	0	0	0	0	0	0	0	0	0	400
STORMWATER UTILITY FUNDING	18,350	0	18,350	0	0	0	0	0	0	0	0	0	0	18,350
Total Funding	34,640	0	34,640	0	0	0	0	0	0	0	0	0	0	34,640

\$34,269,697 spent and encumbered through February 2021

\$33,975,793 spent and encumbered through February 2020

Project Status Designed: 82 pond repairs

Constructed: Red Clover Dam; Willow Brook; West Zone Highways Shop pond; Rockburn 2; Dunteachin pond; Cromwell Court; Falling Waters; Stratford Downs; Hickory Ridge Village Center; Gateway pond; Shadow Lane repair and dredging; Hickory Ridge LPP; Samuel Morse; Ivy Terrace infiltration; Bonnie Brae; Emily Fox; Bill Lilly; Cypress Bay Court; Lynn Buff; Beech Creek 2; Brightfield; Turf Valley Overlook pond 2; Weston Drive; Blue February; Chestnut Farms outfall; Wimbledon Court; Wetherburn; Angelas Valley; 10 trashrack replacements; Rhode Valley; Emily Fox Ct; Old Mill; Towering Oaks; North Laurel pipe repair; Red Cravat repair and dredging; Glenshire Town; Northgate Woods; Murray Hill 2; Mary Lee Lane; Montgomery Run Pond 2; Winding Star; Longridge Knolls; River Hill 2; River Hill 3; Long Meadow pond; Long Meadow pond 2; North Ridge; Rusty Rim; Sweet Hours; Townhomes of Timberland; Velvet Path; Junction Industrial Park; Fairest Dream; Golden Star 1 and 2; Linden Chapel; Twin Oaks; Terra Maria; Beech Creek; Glenmar Section 2; Many Miles Mew; Kings Meade; Blue River; Diversified Lane.

FY 2021 Budget	34,640	0	34,640	0	0	0	0	0	0	0	0	0		34,640
Difference 2021 / 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0

March 25, 2021

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Version : Executive Proposed

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1160-FY2010 STORMWATER MANAGEMENT RETROFITS

Description

A project for the retrofit of stormwater management facilities to include water quality management.

Justification

Numerous facilities built in the early period of stormwater management provide only water quality management. Howard County's Stormwater Management NPDES permit requires the County to improve water quality, in part, through retrofitting existing facilities designed only for water quality management.

Remarks

1. This project replaces D-1141.
2. Grant funds included from the American Recovery and Reinvestment Act and local implementation grant from Chesapeake and Atlantic Coastal Bays 2010 Trust Fund.
3. OTHER SOURCES represent Stormwater Bonds backed by Watershed Protection and Restoration fund, plus funds provided to County through Memorandum of Understanding of cost sharing.
4. Construction of some projects may be dependent upon donation of the necessary easements and-or property owner cost share participation.

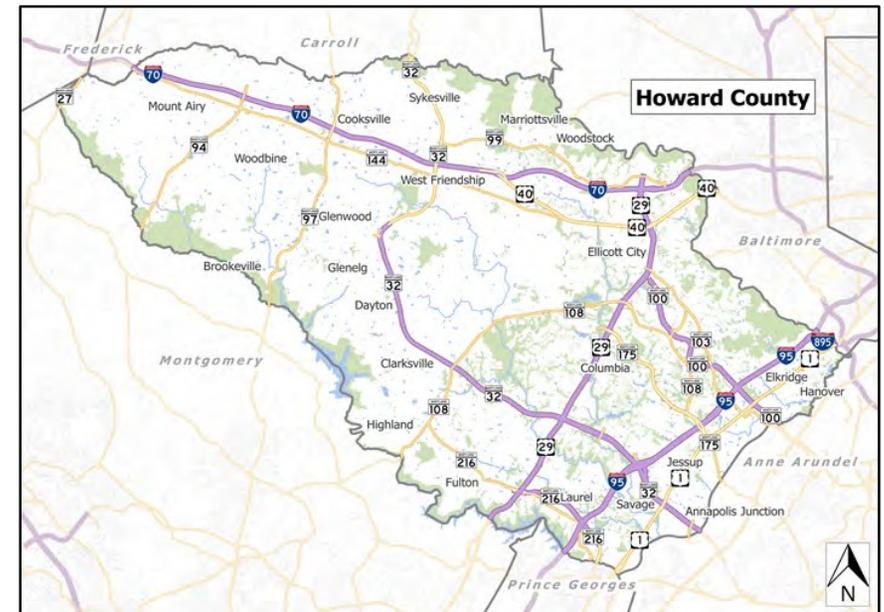
Project Schedule

FY22 - Project is in the financial close out process and will be replaced by D1178.

Operating Budget Impact

Technical-administrative management support.

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	526,084
Total Project Bonds - 20-Year Total Debt Service Payment	10,521,685



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1160-FY2010 STORMWATER MANAGEMENT RETROFITS

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	4,990	0	4,990	0	0	0	0	0	0	0	0	0	0	4,990
CONSTRUCTION	15,425	0	15,425	0	0	0	0	0	0	0	0	0	0	15,425
ADMINISTRATION	620	0	620	0	0	0	0	0	0	0	0	0	0	620
Total Expenditures	21,035	0	21,035	0	0	0	0	0	0	0	0	0	0	21,035
BONDS	6,890	0	6,890	0	0	0	0	0	0	0	0	0	0	6,890
GRANTS	4,495	0	4,495	0	0	0	0	0	0	0	0	0	0	4,495
OTHER SOURCES	4,750	0	4,750	0	0	0	0	0	0	0	0	0	0	4,750
STORMWATER UTILITY FUNDING	4,900	0	4,900	0	0	0	0	0	0	0	0	0	0	4,900
Total Funding	21,035	0	21,035	0	0	0	0	0	0	0	0	0	0	21,035

\$19,216,217 spent and encumbered through February 2021

\$18,754,976 spent and encumbered through February 2020

Project Status In Design: Quaker Mill Court; Wood Crest Drive; Country Meadows; Patapsco Park Estates; Sewells Orchard; Junction Industrial Parcel R.

Constructed: Lynwood Manor; Deep Earth Lane; Recreation and Parks HQ; Turf Valley Overlook Pond 3; Rockburn Branch Park; Country Lane (2 ponds); Oak West Drive; Wilde Lake HS; Turf Valley Overlook pond 2; Whitworth Way; Wimbledon Court; Stevens Forest ES; Dorsey Hall Village Center; Mt Hebron High School; Cedar Lane Park; Baltimore-Washington Industrial Park; Howard County Center for the Arts; St Johns Green; River Hill Shallow Marsh; Dorsey Building Parking Lot; Atholton Park; Ashmede Road pond; Salterforth ponds 1 and 2; Students Branching Out tree planting; Garland Road; Heritage Woods; Governor Martin outfall; Waiting Springs; Ellicott View; Ashton Woods; Trinity School..

FY 2021 Budget	21,035	0	21,035	0	0	0	0	0	0	0	0	0		21,035
Difference 2021 / 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0

March 25, 2021

Howard County, MD

Version : Executive Proposed

Project: D1161-FY2019 SHAFFERSVILLE ROAD CULVERT REPLACEMENT

Description

A project to replace the existing culverts on Shaffersville Road (between Florence Road and Shaffers Mill Road) and on Shaffers Mill Road between Shaffersville Road and Florence Road.

Justification

Requested by the Bureau of Highways. The existing culvert floods regularly necessitating the closure of the road. This is a maintenance problem for the Bureau of Highways and an inconvenience to the traveling public.

Remarks

Shaffersville Road and Shaffers Mill Road are scenic roads.

Project Schedule

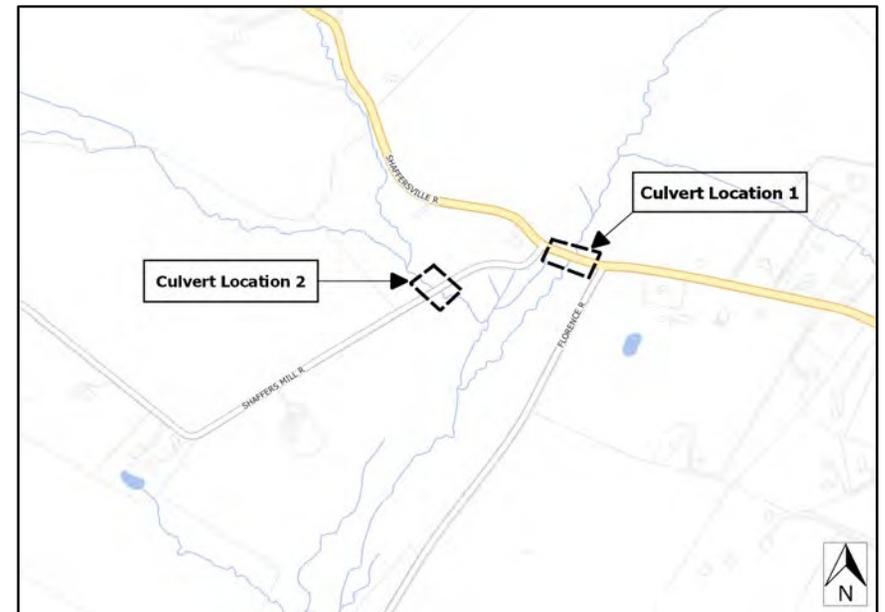
FY22 - Design and Land Acquisition

FY23 - Construction

Operating Budget Impact

Estimated annual maintenance costs upon completion: Decrease.

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	87,808
Total Project Bonds - 20-Year Total Debt Service Payment	1,756,159



Explanation of Changes

The total project cost has changed resulting from the addition of a second culvert location to the project.

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1161-FY2019 SHAFFERSVILLE ROAD CULVERT REPLACEMENT

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	175	0	175	0	0	0	0	0	0	0	0	0	0	175
LAND ACQUISITION	75	0	75	0	0	0	0	0	0	0	0	0	0	75
CONSTRUCTION	0	0	0	0	0	900	0	0	900	0	0	0	0	900
Total Expenditures	250	0	250	0	0	900	0	0	900	0	0	0	0	1,150
BONDS	250	0	250	0	0	900	0	0	900	0	0	0	0	1,150
Total Funding	250	0	250	0	0	900	0	0	900	0	0	0	0	1,150

\$54,106 spent and encumbered through February 2021

\$40,223 spent and encumbered through February 2020

Project Status FY21 - Shaffers Mill Road replacement culverts under construction.

FY 2021 Budget	250	900	1,150	0	0	0	0	0	0	0	0	0		1,150
Difference 2021 / 2022	0	(900)	(900)	0	0	900	0	0	900	0	0	0	0	0

The scope of the project was broadened to include a second culvert on Shaffers Mill Road. Funds for the design of the additional culvert have been requested for FY21.

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1164-FY2013 COMMUNITY ENVIRONMENTAL PARTNERSHIPS

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	700	0	700	0	0	0	0	0	0	0	0	0	0	700
CONSTRUCTION	4,000	400	4,400	400	400	0	0	0	800	0	0	0	0	5,200
Total Expenditures	4,700	400	5,100	400	400	0	0	0	800	0	0	0	0	5,900
BONDS	50	0	50	0	0	0	0	0	0	0	0	0	0	50
OTHER SOURCES	0	400	400	400	400	0	0	0	800	0	0	0	0	1,200
PAY AS YOU GO	1,400	0	1,400	0	0	0	0	0	0	0	0	0	0	1,400
STORMWATER UTILITY FUNDING	3,250	0	3,250	0	0	0	0	0	0	0	0	0	0	3,250
Total Funding	4,700	400	5,100	400	400	0	0	0	800	0	0	0	0	5,900

\$4,475,000 spent and encumbered through February 2021

\$4,075,000 spent and encumbered through February 2020

Project Status

Provided partial funding for READY grant, a.k.a. Howard EcoWorks.

Performed concept grading, soil borings, and survey for Ellicott City Parking Lot E.

Performed design & construction for Savage Library water quality enhancements.

Howard EcoWorks performed BMP maintenance and construction of rain gardens and bioretention areas.

FY 2021 Budget	4,700	400	5,100	400	400	400	400	0	1,600	0	0	0		6,700
Difference 2021 / 2022	0	0	0	0	0	(400)	(400)	0	(800)	0	0	0	0	(800)

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1165-FY2013 FLOOD MITIGATION and STORMWATER/WATERWAY ENHANCEMENT

Description

This project is for the study, design, and construction of flood mitigation and stormwater| waterway enhancement efforts in downtown Ellicott City. Projects may include drainage improvements, stormwater retrofits, flood control, stream improvements, and design of additional drainage facilities.

Justification

Ellicott City has the potential to suffer significant flood damage.

Remarks

- 1.FY21 GRANT represents anticipated additional Hazard Mitigation Grant Program funding 8600 Main Street culvert project.
- 2.OTHER SOURCES represents Stormwater Bonds backed by Watershed Protection and Restoration fund.
- 3.Construction of some projects may be dependent upon donation of the necessary easements and-or property owner cost share participation.

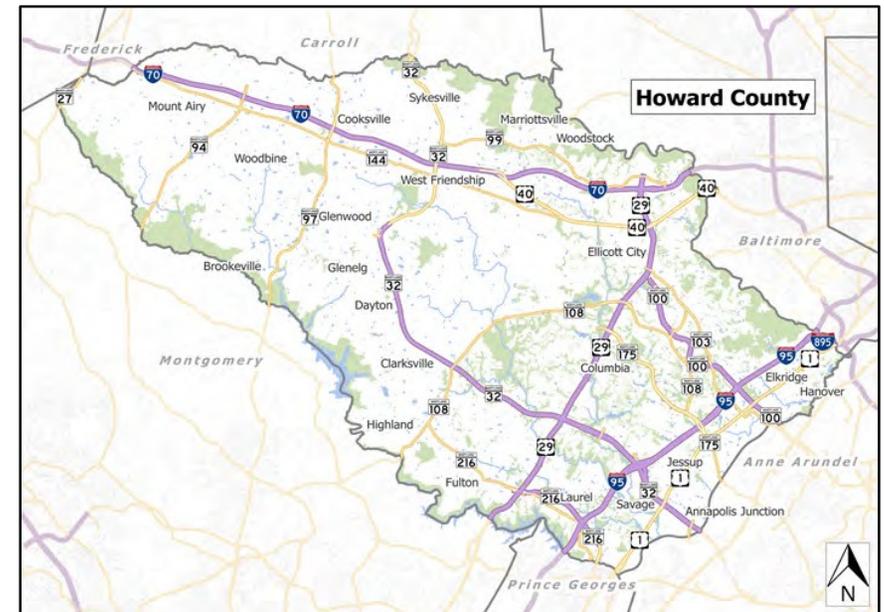
Project Schedule

FY22 - Design H-4 pond project and construct channel from Courthouse Drive to Lot F.

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	320,690
Total Project Bonds - 20-Year Total Debt Service Payment	6,413,800



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1165-FY2013 FLOOD MITIGATION and STORMWATER/WATERWAY ENHANCEMENT

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	2,825	0	2,825	0	0	0	0	0	0	0	0	0	0	2,825
LAND ACQUISITION	1,000	0	1,000	0	0	0	0	0	0	0	0	0	0	1,000
CONSTRUCTION	17,187	0	17,187	0	0	0	0	0	0	0	0	0	0	17,187
ADMINISTRATION	250	0	250	0	0	0	0	0	0	0	0	0	0	250
Total Expenditures	21,262	0	21,262	0	0	0	0	0	0	0	0	0	0	21,262
BONDS	4,200	0	4,200	0	0	0	0	0	0	0	0	0	0	4,200
GRANTS	6,787	0	6,787	0	0	0	0	0	0	0	0	0	0	6,787
OTHER SOURCES	5,400	0	5,400	0	0	0	0	0	0	0	0	0	0	5,400
PAY AS YOU GO	2,475	0	2,475	0	0	0	0	0	0	0	0	0	0	2,475
STORMWATER UTILITY FUNDING	2,400	0	2,400	0	0	0	0	0	0	0	0	0	0	2,400
Total Funding	21,262	0	21,262	0	0	0	0	0	0	0	0	0	0	21,262

\$17,243,848 spent and encumbered through February 2021

\$16,670,753 spent and encumbered through February 2020

Project Status Preliminary assessment - Howard Bldg and Court House parking lot SWM, Emory St|Church Rd|Maryland Ave|St Paul St drainage improvement.

Design initiated - Historic Colored School slope repair, Pond T1, Pond H7, 8600 Main Street culvert.

Construction completed - Parking Lot B WQ improvements, Parking Lot E, Ellicott Mills Dr culvert, New Cut Road slope repair.

Post July 2016 Flood Damage Repairs - Maplewood pond, Ellicott Mills Brewery wall, Precious Gifts wall, Hi Ho Silver wall, Lot E to Lot F wall, 8659 Main St, Parking Lot E NE corner wall, Main St wall at 84-inch culvert, stream channel woody debris removal.

Studies - 2D H&H model after TS Lee, July 2016, May 2018 flood events, Tiber Branch Watershed, Corps of Engineers Floodproofing Report.

FY 2021 Budget	21,262	5,200	26,462	0	0	0	0	0	0	0	0	0		26,462
Difference 2021 / 2022	0	(5,200)	(5,200)	0	0	0	0	0	0	0	0	0	0	(5,200)

1. TAO 1-2017 transferred \$550,000 Grant revenue to D1158. 2. CB 3-2017 added \$1,700,000 in Pay as you Go funding for unanticipated expenses related to Ellicott City flood response and recovery efforts.

March 25, 2021

Howard County, MD

Version : Executive Proposed

Project: D1168-FY2015 MORGAN WOODBINE ROAD SLOPE STABILIZATION

Description

A project to design and construct stabilization of the roadway embankment of Morgan Woodbine Road adjacent to the South Branch of the Patapsco River.

Justification

The roadway embankment is being eroded by the force of the river adjacent to the roadway. Previous attempts to stabilize the embankment have only been successful on a temporary basis. This project will develop a permanent stabilization. Project requested by the Bureau of Highways.

Remarks

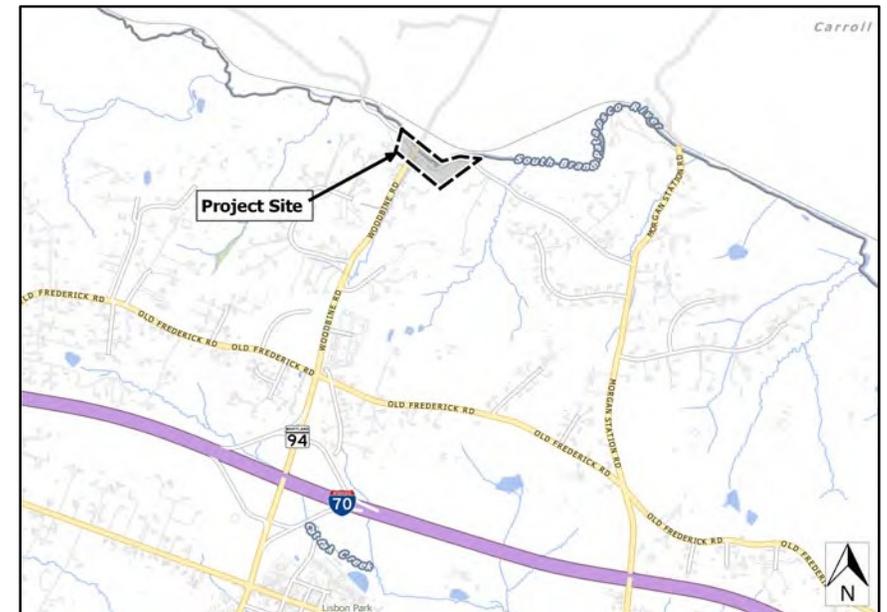
Project Schedule

FY27 - Construction

Operating Budget Impact

Estimated annual maintenance costs upon completion: Decrease.

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	70,628
Total Project Bonds - 20-Year Total Debt Service Payment	1,412,563



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1168-FY2015 MORGAN WOODBINE ROAD SLOPE STABILIZATION

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	200	0	200	0	0	0	0	50	50	0	0	0	0	250
LAND ACQUISITION	25	0	25	0	0	0	0	0	0	0	0	0	0	25
CONSTRUCTION	0	0	0	0	0	0	0	650	650	0	0	0	0	650
Total Expenditures	225	0	225	0	0	0	0	700	700	0	0	0	0	925
BONDS	225	0	225	0	0	0	0	700	700	0	0	0	0	925
Total Funding	225	0	225	0	0	0	0	700	700	0	0	0	0	925

\$112,466 spent and encumbered through February 2021

\$112,366 spent and encumbered through February 2020

Project Status FY21 - Land acquisition in progress.

FY 2021 Budget	225	0	225	0	0	0	0	700	700	0	0	0		925
Difference 2021 / 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project schedule|funding changed due to funding constraint.

Project: D1169-FY2016 STORM DRAIN CULVERT REPLACEMENT PROGRAM

Description

This program will provide for the repair and replacement of failed storm drain pipes and culverts. The County's storm drain infrastructure is aging and many of the metal pipe culverts installed from 1960 through the 1990s have reached the end of their service life. Currently no asset inventory with condition assessment exists; therefore no funding is programmed to systematic replacement of these pipes and culverts. The program will provide for emergency culvert repair and replacement and funding assist in the development of an asset inventory program to better forecast future replacement needs. The program includes: storm water pipe and culvert repair and replacement of metal, HDPE, and concrete in less than six (6) feet in roadway longitudinal length, headwalls, end sections, replacement, or extension of culverts to assure positive flow of storm water and channeling of storm water into existing ditch lines or structures. Repairs include roadside pipe and culvert end treatment safety improvements to eliminate safety hazards. This project will not change the location or size of existing storm drainage structures.

Justification

Program addresses emergency pipe replacement of aging metal, HDPE, and concrete pipes that have reached the end of their service life. Pipe failures have resulted in unacceptable levels of deep depressions, sinkholes, sediment build up, open pipe joints and metal pipe inverts. Poor existing storm drain conditions. Needed repairs will improve safety and reduce the potential for hazards and associated public inconvenience. Failure of a storm drain pipe will require emergency repairs at much higher prices. This program will also provide some funding towards the development of an asset inventory of the storm drain system, including pipe and culvert conditions for future funding forecasting.

Remarks

County owns and maintains approximately 3,543,100 linear feet (671 miles) of storm drains and approximately 13,000 each of storm drain inlet structures.

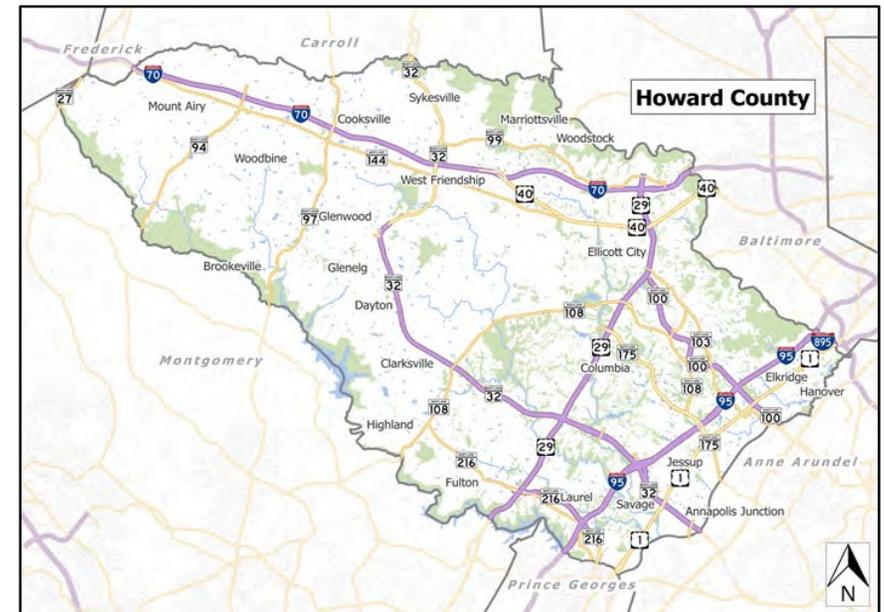
Project Schedule

Approximately 0.3 mile of storm drains (depends on the depth of deteriorated storm drains) replaced per \$1M budgeted.
Close at program completion

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	171,798
FY2022 Bonds - 20-Year Total Debt Service Payment	3,435,964
Total Project Bonds - Annual Debt Service Payment	2,031,037
Total Project Bonds - 20-Year Total Debt Service Payment	40,620,730



Explanation of Changes

Project includes cost updates for all years based on actual estimated project costs.

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1169-FY2016 STORM DRAIN CULVERT REPLACEMENT PROGRAM

(In Thousands)	Five Year Capital Program									Master Plan				
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	500	0	500	0	0	0	0	0	0	0	0	0	0	500
CONSTRUCTION	4,600	2,250	6,850	2,250	2,250	2,100	2,350	2,300	11,250	2,000	2,000	2,000	2,000	26,100
Total Expenditures	5,100	2,250	7,350	2,250	2,250	2,100	2,350	2,300	11,250	2,000	2,000	2,000	2,000	26,600
BONDS	5,100	2,250	7,350	2,250	2,250	2,100	2,350	2,300	11,250	2,000	2,000	2,000	2,000	26,600
Total Funding	5,100	2,250	7,350	2,250	2,250	2,100	2,350	2,300	11,250	2,000	2,000	2,000	2,000	26,600

\$4,555,188 spent and encumbered through February 2021

\$4,179,463 spent and encumbered through February 2020

Project Status

FY 2021 Budget	5,100	2,000	7,100	2,000	2,000	2,000	2,000	2,000	10,000	2,000	2,000	2,000		23,100
Difference 2021 / 2022	0	250	250	250	250	100	350	300	1,250	0	0	0	2,000	3,500

March 25, 2021

Howard County, MD

Version : Executive Proposed

Project: D1175-FY-2018 VALLEY MEDE/CHATHAM FLOOD MITIGATION

Description

This project is for the study, design and construction of flood mitigation and stormwater| waterway improvement efforts in the Valley Mede and Chatham subwatersheds. Projects may include drainage improvements, stormwater retrofits, flood control, stream improvements, and design of additional drainage facilities.

Justification

Valley Mede and Chatham subwatersheds have the potential to suffer significant flood damage.

Remarks

1. Future years, once projects cost-benefits determined, apply for FEMA grants
2. OTHER SOURCES represents Stormwater Bonds backed by Watershed Protection and Restoration fund, plus funds provided to County through Memorandums of Understanding for cost sharing with MD State Highway Administration.
3. Construction of some projects may be dependent upon donation of the necessary easements and-or property owner cost share participation.

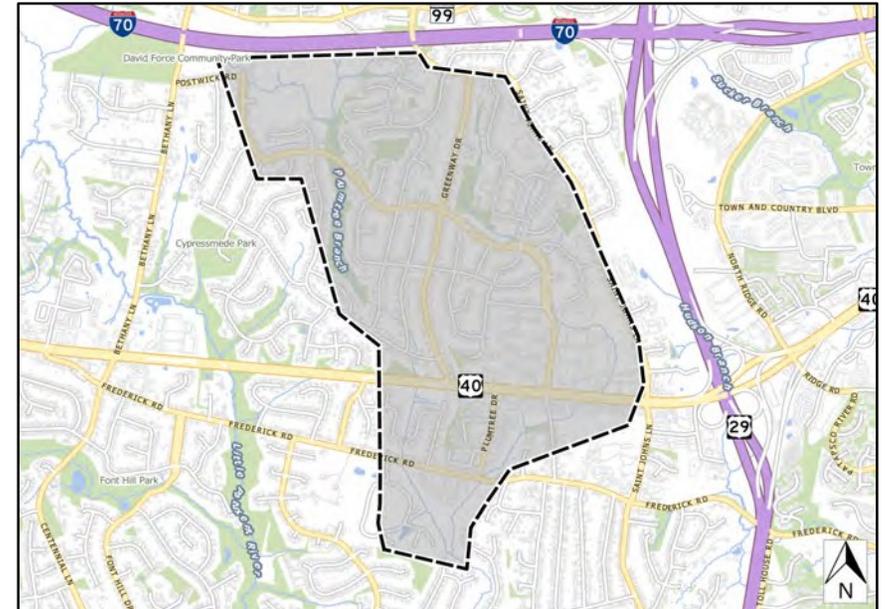
Project Schedule

FY22 - Continue design and construction of projects identified in Plumtree-Little Plumtree study including North Chatham Rd drainage project (MSHA cost share), Michaels Way drainage improvements, and culvert upgrades.

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	53,448
FY2022 Bonds - 20-Year Total Debt Service Payment	1,068,967
Total Project Bonds - Annual Debt Service Payment	320,690
Total Project Bonds - 20-Year Total Debt Service Payment	6,413,800



Explanation of Changes

FY21 budget projection includes funding construction in FY22 for projects under design and permitting in FY21.

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1175-FY-2018 VALLEY MEDE/CHATHAM FLOOD MITIGATION

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	950	0	950	0	0	0	0	0	0	0	0	0	0	950
LAND ACQUISITION	2,500	0	2,500	0	0	0	0	0	0	0	0	0	0	2,500
CONSTRUCTION	2,900	700	3,600	0	0	0	0	0	0	0	0	0	0	3,600
ADMINISTRATION	50	0	50	0	0	0	0	0	0	0	0	0	0	50
Total Expenditures	6,400	700	7,100	0	0	0	0	0	0	0	0	0	0	7,100
BONDS	3,500	700	4,200	0	0	0	0	0	0	0	0	0	0	4,200
OTHER SOURCES	2,900	0	2,900	0	0	0	0	0	0	0	0	0	0	2,900
Total Funding	6,400	700	7,100	0	0	0	0	0	0	0	0	0	0	7,100

\$4,036,271 spent and encumbered through February 2021

\$2,618,459 spent and encumbered through February 2020

Project Status Constructed Longview stream project and Greenway Drive storm drain improvements.

Design Paulskirk Drive, Greenway Drive, Michaels Way storm drain improvements.

Assess Valley Mede roadway culverts and begin design.

Assess North Chatham channel and drainage improvements and begin design.

Acquired 9509, 9513 and 9514 Longview Drive and 9520 Frederick Road and removed houses. Acquired 9506 Longview Drive.

FY 2021 Budget	6,400	1,000	7,400	1,000	1,000	0	0	0	2,000	0	0	0	9,400
Difference 2021 / 2022	0	(300)	(300)	(1,000)	(1,000)	0	0	0	(2,000)	0	0	0	(2,300)

TAO #1-2019 transfers in \$1,000,000. FY20 budget request increased slightly from what was projected for FY20 in the FY19 budget request due to the identification of specific projects and initial design work performed during FY19.

March 25, 2021

Howard County, MD

Version : Executive Proposed

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1176-WATERSHED MANAGEMENT CONSTRUCTION

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	1,100	400	1,500	200	200	0	0	0	400	0	0	0	0	1,900
LAND ACQUISITION	100	0	100	0	0	0	0	0	0	0	0	0	0	100
CONSTRUCTION	6,200	3,600	9,800	3,000	1,800	1,200	0	0	6,000	0	0	0	0	15,800
ADMINISTRATION	100	0	100	0	0	0	0	0	0	0	0	0	0	100
Total Expenditures	7,500	4,000	11,500	3,200	2,000	1,200	0	0	6,400	0	0	0	0	17,900
GRANTS	2,000	1,800	3,800	1,000	1,000	1,000	0	0	3,000	0	0	0	0	6,800
OTHER SOURCES	4,300	2,200	6,500	2,200	1,000	200	0	0	3,400	0	0	0	0	9,900
STORMWATER UTILITY FUNDING	1,200	0	1,200	0	0	0	0	0	0	0	0	0	0	1,200
Total Funding	7,500	4,000	11,500	3,200	2,000	1,200	0	0	6,400	0	0	0	0	17,900

\$3,241,009 spent and encumbered through February 2021

\$1,481,353 spent and encumbered through February 2020

Project Status New capital project to replace D1158.

Design initiated - Bonnie Branch Phase 2, Pirch Way, Valley Road storm drain, Wharffs Lane.

Construction initiated - Old Willow Way Phase 2. Post construction monitoring performed for multiple projects.

Construction complete - Pirch Way, Valley Road storm drain, Cherry Tree Farms, Sucker Branch Trib 2|5.

FY 2021 Budget	7,500	2,500	10,000	2,500	3,000	3,400	3,400	0	12,300	0	0	0		22,300
Difference 2021 / 2022	0	1,500	1,500	700	(1,000)	(2,200)	(3,400)	0	(5,900)	0	0	0	0	(4,400)

March 25, 2021

Howard County, MD

Version : Executive Proposed

Project: D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION

Description

A fund for Howard County to undertake construction or repairs to stormwater management on an as-needed basis meeting the provisions of the County Code. This program is envisioned to provide rapid assistance in emergency situations.

Justification

Howard County Code Section 18.900, which requires inspection and maintenance of storm water management facilities. Metal pipe pond barrels are deteriorating as they reach the end of their expected life and need to be repaired or replaced. Sediment that has accumulated in ponds needs to be dredged.

Remarks

1. This project replaces D-1159.
2. A portion of current request represents funding to be generated from legislation CB-8 & CR21 for stormwater utility funding, known as Watershed Protection and Restoration fund.
3. Construction of some projects may be dependent upon donation of the necessary easements and-or property owner cost share participation.
4. OTHER SOURCES represents Stormwater Bonds backed by Watershed Protection and Restoration fund.

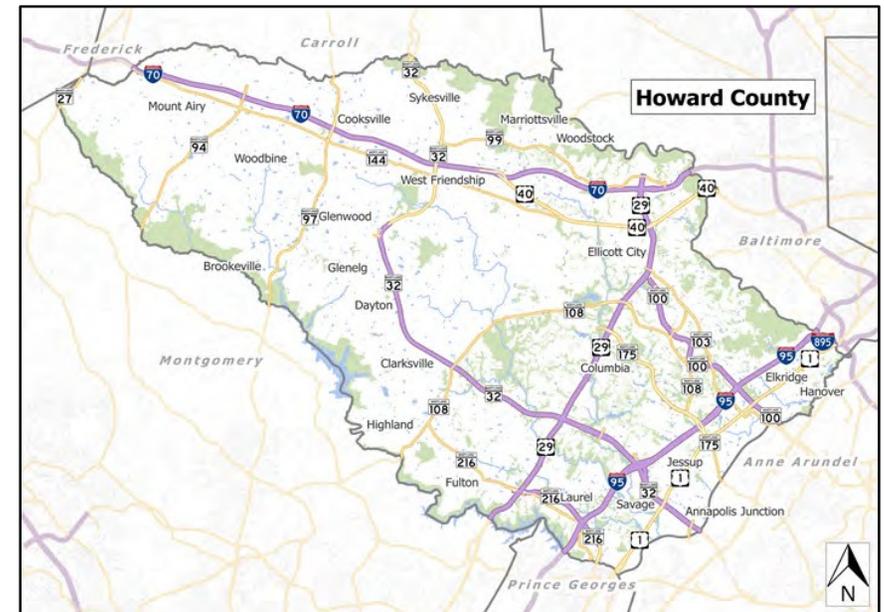
Project Schedule

- FY22 - Design: 3 stormwater management pond outlet structure repairs-replacements
 FY22 - Construction: 7 stormwater management pond outlet structure repairs-replacements

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	15,271
Total Project Bonds - 20-Year Total Debt Service Payment	305,419



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1177-STORMWATER MANAGEMENT FACILITY RECONSTRUCTION

(In Thousands)	Five Year Capital Program									Master Plan				
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	600	600	1,200	400	400	200	0	0	1,000	0	0	0	0	2,200
LAND ACQUISITION	100	0	100	0	0	0	0	0	0	0	0	0	0	100
CONSTRUCTION	10,400	8,500	18,900	6,600	4,200	1,300	0	0	12,100	0	0	0	0	31,000
ADMINISTRATION	200	0	200	0	0	0	0	0	0	0	0	0	0	200
Total Expenditures	11,300	9,100	20,400	7,000	4,600	1,500	0	0	13,100	0	0	0	0	33,500
BONDS	200	0	200	0	0	0	0	0	0	0	0	0	0	200
GRANTS	0	1,500	1,500	0	0	0	0	0	0	0	0	0	0	1,500
OTHER SOURCES	6,100	7,600	13,700	7,000	4,600	1,500	0	0	13,100	0	0	0	0	26,800
STORMWATER UTILITY FUNDING	5,000	0	5,000	0	0	0	0	0	0	0	0	0	0	5,000
Total Funding	11,300	9,100	20,400	7,000	4,600	1,500	0	0	13,100	0	0	0	0	33,500

\$5,331,611 spent and encumbered through February 2021

\$3,413,984 spent and encumbered through February 2020

Project Status New capital project to replace D1159.

Design initiated - Whiskey Bottom West, Scottswood Court

Construction initiated - Cardinal Forest, Mayfield Manor, Nottingham Village.

Construction complete - Strawberry Fields, Hi Tech Road, Autumn Manor, Woodcrest, Calvert Ridge.

FY 2021 Budget	11,300	1,700	13,000	1,700	700	1,200	1,100	0	4,700	0	0	0		17,700
Difference 2021 / 2022	0	7,400	7,400	5,300	3,900	300	(1,100)	0	8,400	0	0	0	0	15,800

March 25, 2021

Howard County, MD

Version : Executive Proposed

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1178-STORMWATER MANAGEMENT RETROFITS

Description

A project for the retrofit of stormwater management facilities to include water quality management.

Justification

Numerous facilities built in the early period of stormwater management provide only water quantity management. Howard County's Stormwater Management NPDES permit requires the County to improve water quality, in part, through retrofitting existing facilities designed only for water quantity management.

Remarks

1. This project replaces D-1160.
2. A portion of request represents funding to be generated from legislation CB-8 and CR21 for stormwater utility funding, known as Watershed Protection and Restoration fund.
3. OTHER SOURCES represent Stormwater Bonds backed by Watershed Protection and Restoration fund, plus funds provided to County through Memorandum of Understanding of cost sharing.
4. Construction of some projects may be dependent upon donation of the necessary easements and-or property owner cost share participation.

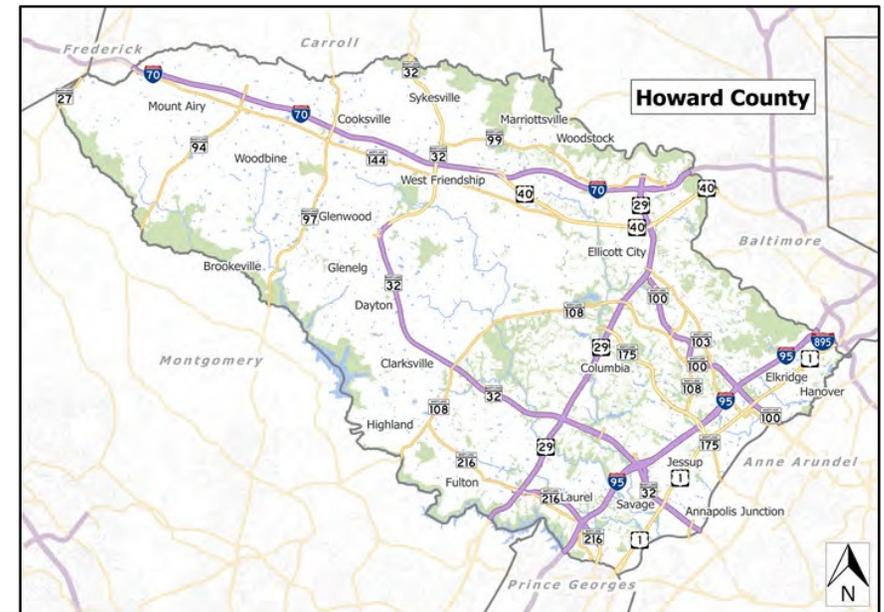
Project Schedule

FY22 - Complete construction of Sewells Orchard pond.

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	755,912
Total Project Bonds - 20-Year Total Debt Service Payment	15,118,242



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1178-STORMWATER MANAGEMENT RETROFITS

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	300	0	300	100	100	100	100	100	500	100	100	100	100	1,200
LAND ACQUISITION	100	0	100	0	0	0	0	0	0	0	0	0	0	100
CONSTRUCTION	2,250	0	2,250	1,000	1,000	1,000	1,000	1,000	5,000	1,000	1,000	1,000	1,000	11,250
ADMINISTRATION	50	0	50	0	0	0	0	0	0	0	0	0	0	50
Total Expenditures	2,700	0	2,700	1,100	1,100	1,100	1,100	1,100	5,500	1,100	1,100	1,100	1,100	12,600
BONDS	0	0	0	1,100	1,100	1,100	1,100	1,100	5,500	1,100	1,100	1,100	1,100	9,900
OTHER SOURCES	2,700	0	2,700	0	0	0	0	0	0	0	0	0	0	2,700
Total Funding	2,700	0	2,700	1,100	1,100	1,100	1,100	1,100	5,500	1,100	1,100	1,100	1,100	12,600

\$525,838 spent and encumbered through February 2021

\$24,525 spent and encumbered through February 2020

Project Status New capital project to replace D1160.

Construction initiated - Sewells Orchard pond.

Construction complete - Gwynn Park Drive outfall, Carrigan Drive outfall.

FY 2021 Budget	2,700	0	2,700	0	500	500	500	0	1,500	0	0	0		4,200
Difference 2021 / 2022	0	0	0	1,100	600	600	600	1,100	4,000	1,100	1,100	1,100	1,100	8,400

March 25, 2021

Howard County, MD

Version : Executive Proposed

Project: D1180 - FY2021 TIBER WATERSHED IMPROVEMENTS

Description

A project for the design and construction of varying sized drainage and stormwater management projects within the Tiber Watershed.

Justification

This watershed was significantly impacted by recent flooding events. Additionally, many of the existing drainage conveyance systems have reached the end of their useful service life and need to be replaced. Much of the development within the watershed predates current storm water management requirements. This program will address these issues.

Remarks

1. Construction of some projects may be dependent upon donations from adjacent property owners.
2. This program implements recommendations from study done under CB56-2018.

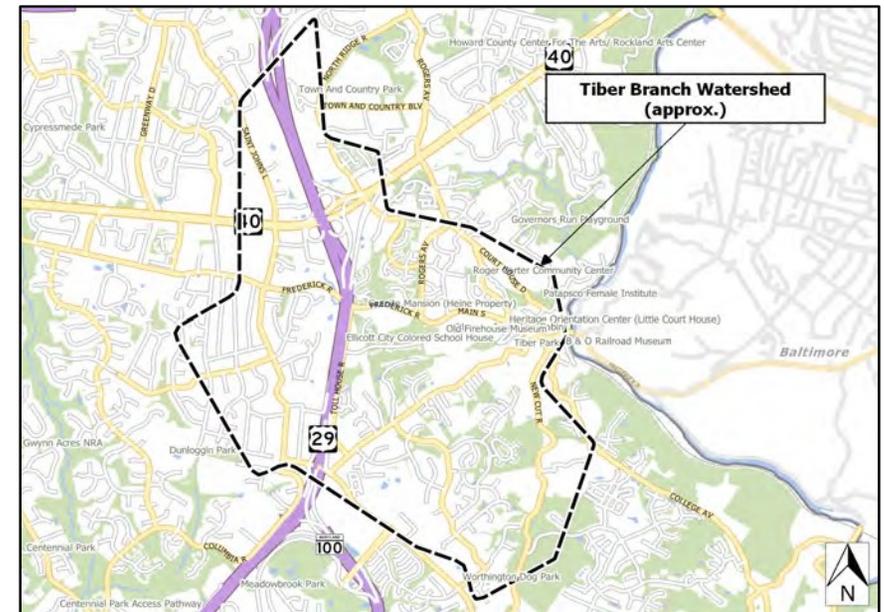
Project Schedule

- FY22 - Design and construction
- FY23 - Construction

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	76,355
Total Project Bonds - 20-Year Total Debt Service Payment	1,527,095



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1180 - FY2021 TIBER WATERSHED IMPROVEMENTS

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	150	0	150	0	150	0	0	0	150	0	0	0	0	300
LAND ACQUISITION	100	0	100	0	0	0	0	0	0	0	0	0	0	100
CONSTRUCTION	250	0	250	0	350	0	0	0	350	0	0	0	0	600
Total Expenditures	500	0	500	0	500	0	0	0	500	0	0	0	0	1,000
BONDS	500	0	500	0	500	0	0	0	500	0	0	0	0	1,000
Total Funding	500	0	500	0	500	0	0	0	500	0	0	0	0	1,000

\$0 spent and encumbered through February 2021

\$0 spent and encumbered through February 2020

Project Status FY21 – Design of various watershed improvements is underway

FY 2021 Budget	500	500	1,000	500	0	0	0	0	500	0	0	0		1,500
Difference 2021 / 2022	0	(500)	(500)	(500)	500	0	0	0	0	0	0	0	0	(500)

Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1181 - FY2021 PLUM TREE WATERSHED IMPROVEMENTS

Description

A project for the design and construction of varying sized drainage and stormwater management projects within the Plum Tree Watershed.

Justification

This watershed was significantly impacted by recent flooding events. Additionally, many of the existing drainage conveyance systems have reached the end of their useful service life and need to be replaced. Much of the development within the watershed predates current storm water management requirements. This program will address these issues

Remarks

1. Construction of some projects may be dependent upon donations from adjacent property owners.
2. This program implements recommendations from study done under CB56-2018.

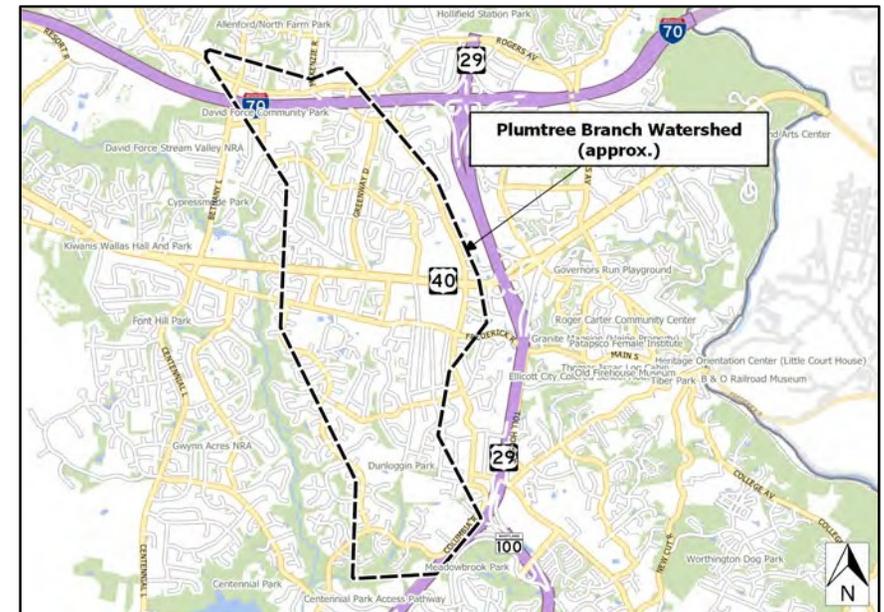
Project Schedule

- FY22 - Design and construction
- FY23 - Construction

Operating Budget Impact

No Operating Impact

FY2022 Bonds - Annual Debt Service Payment	0
FY2022 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	61,084
Total Project Bonds - 20-Year Total Debt Service Payment	1,221,676



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1181 - FY2021 PLUM TREE WATERSHED IMPROVEMENTS

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	100	0	100	100	0	0	0	0	100	0	0	0	0	200
LAND ACQUISITION	50	0	50	0	0	0	0	0	0	0	0	0	0	50
CONSTRUCTION	250	0	250	300	0	0	0	0	300	0	0	0	0	550
Total Expenditures	400	0	400	400	0	0	0	0	400	0	0	0	0	800
BONDS	400	0	400	400	0	0	0	0	400	0	0	0	0	800
Total Funding	400	0	400	400	0	0	0	0	400	0	0	0	0	800

\$0 spent and encumbered through February 2021

\$0 spent and encumbered through February 2020

Project Status FY21 – Design of various watershed improvements is underway

FY 2021 Budget	400	400	800	400	0	0	0	0	400	0	0	0		1,200
Difference 2021 / 2022	0	(400)	(400)	0	0	0	0	0	0	0	0	0	0	(400)

Project: D1182-FY2021 ORCHARD RIDGE DRAINAGE IMPROVEMENTS

Description

This project is for the design and construction of drainage and stormwater management improvements in the Orchard Ridge community.

Justification

There are several locations of drainage conveyance issues in the vicinity of Hale Haven Drive and Carman Drive. Additionally, the adjacent tributary is severely eroding neighboring properties. Highways is unable to adequately maintain the area or address resident concerns.

Remarks

1. A study of the area was done to determine possible solutions for runoff and stream erosion in the area. This project will advance the recommended solutions.
2. Construction may be dependent upon donation of easements from adjacent property owners.
3. Request represents project advancement.

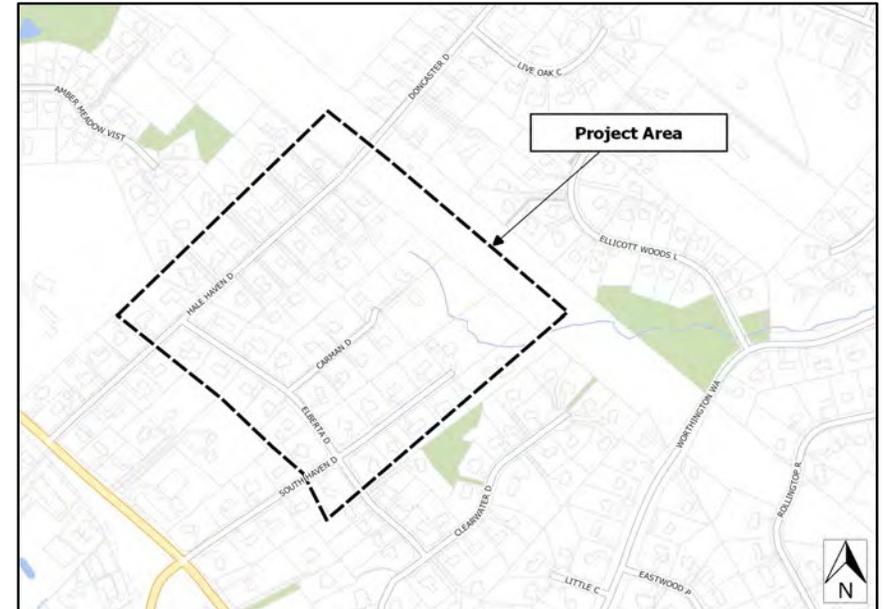
Project Schedule

- FY22 - Land Acquisition and Construction along tributary
 FY23 - Design, Land Acquisition and Construction along Hale Haven & Carman Drives.

Operating Budget Impact

Decrease.

FY2022 Bonds - Annual Debt Service Payment	38,177
FY2022 Bonds - 20-Year Total Debt Service Payment	763,548
Total Project Bonds - Annual Debt Service Payment	108,806
Total Project Bonds - 20-Year Total Debt Service Payment	2,176,111



Fiscal 2022 Capital Budget

STORM DRAINAGE PROJECTS

Project: D1182-FY2021 ORCHARD RIDGE DRAINAGE IMPROVEMENTS

(In Thousands)				Five Year Capital Program						Master Plan				
Appropriation Object Class	Prior Appr.	FY2022 Budget	Appr. Total	Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Sub Total	Fiscal 2028	Fiscal 2029	Fiscal 2030	Fiscal 2031	Total Project
PLANS & ENGINEERING	175	75	250	0	0	0	0	0	0	0	0	0	0	250
LAND ACQUISITION	400	25	425	0	0	0	0	0	0	0	0	0	0	425
CONSTRUCTION	0	400	400	350	0	0	0	0	350	0	0	0	0	750
Total Expenditures	575	500	1,075	350	0	0	0	0	350	0	0	0	0	1,425
BONDS	575	500	1,075	350	0	0	0	0	350	0	0	0	0	1,425
Total Funding	575	500	1,075	350	0	0	0	0	350	0	0	0	0	1,425

\$78,721 spent and encumbered through February 2021

\$0 spent and encumbered through February 2020

Project Status FY21 - Initial land acquisition complete. Design of diversion along BGE right-of-way underway along with requisite land acquisition

FY 2021 Budget	575	300	875	350	0	0	0	0	350	0	0	0		1,225
Difference 2021 / 2022	0	200	200	0	0	0	0	0	0	0	0	0	0	200

ATTACHMENT 3:
GENERAL FUND FY2022

Department	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	Total	Difference	%
3100 - Department of Public Works	1,312,492	1,291,115	1,159,818	1,213,761	116,300	1,330,061	38,946	3.02 %
01 - General Fund	1,312,492	1,291,115	1,159,818	1,213,761	116,300	1,330,061	38,946	3.02 %
50 - Personnel Costs	1,137,414	1,134,686	992,014	1,166,839	0	1,166,839	32,153	2.83 %
500100 - Salary-Regular	848,038	843,419	799,148	876,390	0	876,390	32,971	3.91 %
500140 - Disaster Recovery	0	0	0	0	0	0	0	0.00%
500900 - Salary-Overtime	107	0	0	0	0	0	0	0.00%
501100 - Benefits-FICA	62,818	63,679	41,887	66,214	0	66,214	2,535	3.98 %
501300 - Benefits-Health Insurance	128,070	128,070	85,380	120,825	0	120,825	(7,245)	-5.66 %
501500 - Benefits-Retirement	98,381	99,518	65,599	103,410	0	103,410	3,892	3.91 %
51 - Contractual Services	141,189	119,659	134,834	12,243	109,300	121,543	1,884	1.57 %
510200 - Telecommunications Wired	750	538	863	534	0	534	(4)	-0.74 %
510210 - Telecommunications Wireless	3,198	2,500	2,500	0	2,500	2,500	0	0.00 %
510300 - Printing	1,143	1,000	750	0	1,000	1,000	0	0.00 %
510400 - Advertising & Clipping Service	0	0	0	0	0	0	0	0.00%
511500 - Industrial & Institutionl Eq Maintenance	8,108	102,000	101,000	0	102,000	102,000	0	0.00 %
511900 - Software Maintenance	31,439	0	17,000	0	0	0	0	0.00%
512100 - Electricity	0	500	500	0	500	500	0	0.00 %
513100 - Mileage	0	0	0	0	300	300	300	100.00%
513110 - Ground Transportation	0	0	0	0	0	0	0	0.00%
513500 - Conferences & Seminar Fees	0	0	0	0	1,000	1,000	1,000	100.00%
514355 - Groundwater and Leachate Analysis Svcs	0	0	0	0	0	0	0	0.00%
514700 - Data Processing Services	12,939	11,121	11,121	11,709	0	11,709	588	5.29 %

Department	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	Total	Difference	%
514820 - Inspection Services	1,022	0	0	0	0	0	0	0.00%
515900 - Other Contractual Services	72,679	0	0	0	0	0	0	0.00%
515950 - Training Services	1,040	2,000	1,100	0	2,000	2,000	0	0.00 %
516190 - Other Donations	8,871	0	0	0	0	0	0	0.00%
516820 - Association & Membership Dues	0	0	0	0	0	0	0	0.00%
52 - Supplies and Materials	5,517	7,000	3,200	0	7,000	7,000	0	0.00 %
520100 - Office Supplies	975	2,000	1,000	0	2,000	2,000	0	0.00 %
520200 - Data Processing Equipment & Supplies	2,619	0	0	0	0	0	0	0.00%
521720 - Household Supplies	1,923	5,000	2,200	0	5,000	5,000	0	0.00 %
53 - Capital Outlay	0	0	0	0	0	0	0	0.00%
530500 - Capital Outlay-Equipment	0	0	0	0	0	0	0	0.00%
58 - Expense Other	28,372	29,770	29,770	34,679	0	34,679	4,909	16.49 %
581050 - Direct Cost Conversion-Vehicle Charges	28,372	29,770	29,770	34,679	0	34,679	4,909	16.49 %
Total Budget	1,312,492	1,291,115	1,159,818	1,213,761	116,300	1,330,061	\$38,946	3.02 %

ATTACHMENT 4:
WATERSHED PROTECTION AND
RESTORATION FUND FY2022 – DPW

Department	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs.Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	Total	Difference	%
3100 - Department of Public Works	6,645,333	14,406,653	14,305,935	946,149	6,093,462	7,039,611	(7,367,042)	-51.14 %
27 - Watershed Protection & Restoration Fund	6,645,333	14,406,653	14,305,935	946,149	6,093,462	7,039,611	(7,367,042)	-51.14 %
50 - Personnel Costs	681,875	697,600	686,482	716,835	0	716,835	19,235	2.76 %
500100 - Salary-Regular	490,580	501,250	500,367	522,916	0	522,916	21,666	4.32 %
500140 - Disaster Recovery	0	0	0	0	0	0	0	0.00%
501100 - Benefits-FICA	36,099	38,346	33,831	40,012	0	40,012	1,666	4.34 %
501300 - Benefits-Health Insurance	85,380	85,380	85,380	80,550	0	80,550	(4,830)	-5.66 %
501500 - Benefits-Retirement	56,729	59,141	53,906	61,698	0	61,698	2,557	4.32 %
501700 - Benefits-Workers Compensation	13,087	13,483	12,998	11,659	0	11,659	(1,824)	-13.53 %
51 - Contractual Services	1,393,863	1,415,118	1,325,518	212,128	1,319,000	1,531,128	116,010	8.20 %
510400 - Advertising & Clipping Service	916	80,000	1,000	0	80,000	80,000	0	0.00 %
511310 - Radio Maintenance	10,946	8,712	8,712	9,546	0	9,546	834	9.57 %
511500 - Industrial & Institutionl Eq Maintenance	0	0	0	0	0	0	0	0.00%
513100 - Mileage	0	0	0	0	0	0	0	0.00%
513120 - Parking Fees	0	0	0	0	0	0	0	0.00%
514355 - Groundwater and Leachate Analysis Svcs	21,009	10,000	9,900	0	10,000	10,000	0	0.00 %
514700 - Data Processing Services	223,793	192,406	192,406	202,582	0	202,582	10,176	5.29 %
514820 - Inspection Services	609,912	600,000	600,000	0	600,000	600,000	0	0.00 %
515900 - Other Contractual Services	527,287	520,000	510,000	0	625,000	625,000	105,000	20.19 %
516820 - Association & Membership Dues	0	4,000	3,500	0	4,000	4,000	0	0.00 %
54 - Debt Service	351,976	1,432,518	1,432,518	0	1,377,830	1,377,830	(54,688)	-3.82 %
540100 - Interest Paid-Bonds-Other	108,264	620,408	620,408	0	723,070	723,070	102,662	16.55 %

Department	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	Total	Difference	%
540800 - Interest Paid-Loans-Assets	(154)	39,680	39,680	0	39,400	39,400	(280)	-0.71 %
543100 - Principal Expense Paid-Bonds-Other	243,712	621,835	621,835	0	464,480	464,480	(157,355)	-25.30 %
543800 - Principal Exp Pd-Loans-Assets	154	150,595	150,595	0	150,880	150,880	285	0.19 %
58 - Expense Other	267,619	220,037	220,037	17,186	3,396,632	3,413,818	3,193,781	1,451.47 %
581010 - Current Operating Cost Conversion	248,960	202,069	202,069	0	221,603	221,603	19,534	9.67 %
581059 - Direct Cost Conversion-GIS	15,919	17,472	17,472	16,686	0	16,686	(786)	-4.50 %
581097 - Indirect Cost Conversion	2,740	496	496	500	0	500	4	0.81 %
589800 - Appropriation To Fund Balance	0	0	0	0	3,175,029	3,175,029	3,175,029	100.00 %
69 - Operating Transfers	3,950,000	10,641,380	10,641,380	0	0	0	(10,641,380)	-100.00 %
695000 - Operating Transfers Out-Budg-Other	3,950,000	10,641,380	10,641,380	0	0	0	(10,641,380)	-100.00 %
Total Budget	6,645,333	14,406,653	14,305,935	946,149	6,093,462	7,039,611	(\$7,367,042)	-51.14 %

ATTACHMENT 5:
WATERSHED PROTECTION AND
RESTORATION FUND FY2022 – ALL

	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized			
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
51 - Contractual Services	512,179	910,400	849,740	17,889	926,750	0	944,639	34,239	3.76 %
510300 - Printing	0	5,000	5,000	0	3,000	0	3,000	(2,000)	-40.00 %
GGGG000000000000	0	5,000	5,000	0	3,000	0	3,000	(2,000)	-40.00 %
<i>Innovation Grant Signage.</i>									
512230 - Stormwater Reimbursement	131,052	330,000	270,000	0	250,000	0	250,000	(80,000)	-24.24 %
GGGG000000000000	131,052	330,000	270,000	0	250,000	0	250,000	(80,000)	-24.24 %
<i>Cleanscapes 150k, Septic Savers 100k</i>									
513100 - Mileage	215	500	500	0	500	0	500	0	0.00 %
GGGG000000000000	215	500	500	0	500	0	500	0	0.00 %
513120 - Parking Fees	114	100	100	0	100	0	100	0	0.00 %
GGGG000000000000	114	100	100	0	100	0	100	0	0.00 %
513200 - Lodging	0	300	0	0	0	0	0	(300)	-100.00 %
GGGG000000000000	0	300	0	0	0	0	0	(300)	-100.00 %
513500 - Conferences & Seminar Fees	489	2,500	2,500	0	2,000	0	2,000	(500)	-20.00 %
GGGG000000000000	489	2,500	2,500	0	2,000	0	2,000	(500)	-20.00 %
514700 - Data Processing Services	0	16,990	16,990	17,889	0	0	17,889	899	5.29 %
GGGG000000000000	0	16,990	16,990	17,889	0	0	17,889	899	5.29 %
515900 - Other Contractual Services	380,159	554,360	554,000	0	670,000	0	670,000	115,640	20.86 %
GGGG000000000000	380,159	554,360	554,000	0	670,000	0	670,000	115,640	20.86 %
515950 - Training Services	150	500	500	0	1,000	0	1,000	500	100.00 %
GGGG000000000000	150	500	500	0	1,000	0	1,000	500	100.00 %
516820 - Association & Membership Dues	0	150	150	0	150	0	150	0	0.00 %
GGGG000000000000	0	150	150	0	150	0	150	0	0.00 %

	FY 2020	FY 2021	FY 2021	FY 2022			Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
50 - Personnel Costs	234,234	315,149	307,935	310,415	7,500	0	317,915	2,766	0.88 %
500100 - Salary-Regular	133,624	197,986	192,236	203,672	0	0	203,672	5,686	2.87 %
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	133,624	197,986	192,236	203,672	0	0	203,672	5,686	2.87 %
500190 - Salary-Other	0	0	0	0	0	0	0	0	0.00%
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
500900 - Salary-Overtime	3,878	7,500	6,996	0	7,500	0	7,500	0	0.00 %
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	3,878	7,500	6,996	0	7,500	0	7,500	0	0.00 %
500940 - Disaster Recovery Overtime	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	0	0	0	0	0	0	0.00%
501000 - Benefits-Pensions Paid	0	0	0	0	0	0	0	0	0.00%
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
501100 - Benefits-FICA	10,303	15,143	15,112	15,590	0	0	15,590	447	2.95 %
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	10,303	15,143	15,112	15,590	0	0	15,590	447	2.95 %
501300 - Benefits-Health Insurance	71,150	71,150	71,150	67,125	0	0	67,125	(4,025)	-5.66 %
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	71,150	71,150	71,150	67,125	0	0	67,125	(4,025)	-5.66 %

	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized			
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
501500 - Benefits-Retirement	15,279	23,370	22,441	24,028	0	0	24,028	658	2.82 %
PWPWHMAD00000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW000000000	15,279	23,370	22,441	24,028	0	0	24,028	658	2.82 %
51 - Contractual Services	896,339	820,303	819,445	288	820,000	0	820,288	(15)	0.00 %
510500 - Copier Charges	0	303	303	288	0	0	288	(15)	-4.95 %
PWPW0000000000000	0	303	303	288	0	0	288	(15)	-4.95 %
511500 - Industrial & Institutionl Eq Maintenance	0	70,000	70,146	0	70,000	0	70,000	0	0.00 %
PWPWHMSW000000000	0	70,000	70,146	0	70,000	0	70,000	0	0.00 %
515215 - Uniform Rental	0	0	944	0	0	0	0	0	0.00%
PWPWHMSW000000000	0	0	944	0	0	0	0	0	0.00%
515780 - Construction Site Work	877,841	0	0	0	0	0	0	0	0.00%
PWPW0000000000000	437,852	0	0	0	0	0	0	0	0.00%
PWPWHMRM000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW000000000	439,989	0	0	0	0	0	0	0	0.00%
515790 - Other Construction Services	0	250,000	250,000	0	250,000	0	250,000	0	0.00 %
PWPWHMSW000000000	0	250,000	250,000	0	250,000	0	250,000	0	0.00 %
515900 - Other Contractual Services	18,498	500,000	498,052	0	500,000	0	500,000	0	0.00 %
PWPWHMSW000000000	18,498	500,000	498,052	0	500,000	0	500,000	0	0.00 %
52 - Supplies and Materials	0	100,000	97,664	0	100,000	0	100,000	0	0.00 %
520550 - Ticket Purchases	0	0	357	0	0	0	0	0	0.00%
PWPWHMSW000000000	0	0	357	0	0	0	0	0	0.00%
520900 - Safety Equipment & Supplies	0	0	1,800	0	0	0	0	0	0.00%
PWPWHMSW000000000	0	0	1,800	0	0	0	0	0	0.00%

	FY 2020	FY 2021	FY 2021	FY 2022			Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
521730 - Hardware & Related Supplies	0	0	3,513	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	3,513	0	0	0	0	0	0.00%
521750 - Plumbing Equipment & Supplies	0	100,000	80,000	0	100,000	0	100,000	0	0.00%
PWPWHMSW00000000	0	100,000	80,000	0	100,000	0	100,000	0	0.00%
521800 - Seed	0	0	1,200	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	1,200	0	0	0	0	0	0.00%
522190 - Other Vehicle Equipment & Supplies	0	0	10,794	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	10,794	0	0	0	0	0	0.00%
522200 - Road Maintenance Equipment & Supplies	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	0	0	0	0	0	0	0.00%
53 - Capital Outlay	13,500	0	0	0	0	0	0	0	0.00%
530500 - Capital Outlay-Equipment	13,500	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	13,500	0	0	0	0	0	0	0	0.00%
530560 - Capital Outlay-Vehicles	0	0	0	0	0	0	0	0	0.00%
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	0	0	0	0	0	0	0	0.00%
58 - Expense Other	248,960	168,391	168,391	0	184,669	0	184,669	16,278	9.67%
581010 - Current Operating Cost Conversion	248,960	168,391	168,391	0	184,669	0	184,669	16,278	9.67%
PWPW000000000000	248,960	0	0	0	0	0	0	0	0.00%
PWPWHMSW00000000	0	168,391	168,391	0	184,669	0	184,669	16,278	9.67%
314200000 - Env Stormwater Mgmt	6,645,333	14,406,653	14,305,935	946,149	6,093,462	0	7,039,611	(7,367,042)	-51.14%

	FY 2020	FY 2021	FY 2021	FY 2022		Approved vs. Prior Year Authorized			
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
513100 - Mileage	0	0	0	0	0	0	0	0	0.00%
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
513120 - Parking Fees	0	0	0	0	0	0	0	0	0.00%
PWPW000000000000	0	0	0	0	0	0	0	0	0.00%
514355 - Groundwater and Leachate Analysis Svcs	21,009	10,000	9,900	0	10,000	0	10,000	0	0.00 %
PWPW000000000000	21,009	10,000	9,900	0	10,000	0	10,000	0	0.00 %
514700 - Data Processing Services	223,793	192,406	192,406	202,582	0	0	202,582	10,176	5.29 %
PWPW000000000000	223,793	192,406	192,406	202,582	0	0	202,582	10,176	5.29 %
514820 - Inspection Services	609,912	600,000	600,000	0	600,000	0	600,000	0	0.00 %
PWPW000000000000	609,912	600,000	600,000	0	600,000	0	600,000	0	0.00 %
515900 - Other Contractual Services	527,287	520,000	510,000	0	625,000	0	625,000	105,000	20.19 %
PWPW000000000000	527,287	520,000	510,000	0	625,000	0	625,000	105,000	20.19 %
516820 - Association & Membership Dues	0	4,000	3,500	0	4,000	0	4,000	0	0.00 %
PWPW000000000000	0	4,000	3,500	0	4,000	0	4,000	0	0.00 %
54 - Debt Service	351,976	1,432,518	1,432,518	0	1,377,830	0	1,377,830	(54,688)	-3.82 %
540100 - Interest Paid-Bonds-Other	108,264	620,408	620,408	0	723,070	0	723,070	102,662	16.55 %
PWPW000000000000	108,264	620,408	620,408	0	723,070	0	723,070	102,662	16.55 %
540800 - Interest Paid-Loans-Assets	(154)	39,680	39,680	0	39,400	0	39,400	(280)	-0.71 %
PWPW000000000000	(154)	39,680	39,680	0	39,400	0	39,400	(280)	-0.71 %
543100 - Principal Expense Paid-Bonds-Other	243,712	621,835	621,835	0	464,480	0	464,480	(157,355)	-25.30 %
PWPW000000000000	243,712	621,835	621,835	0	464,480	0	464,480	(157,355)	-25.30 %

	FY 2020	FY 2021	FY 2021	FY 2022			Approved vs. Prior Year Authorized		
	Actual	Authorized	Estimated	Base Budget	Budget	New Efforts	Total	Difference	%
501500 - Benefits-Retirement	9,059	0	9,935	0	10,427	0	10,427	10,427	100.00%
CSCS0000000000000	0	0	9,935	0	10,427	0	10,427	10,427	100.00%
PWPW0000000000000	9,059	0	0	0	0	0	0	0	0.00%
51 - Contractual Services	84,824	100,571	90,636	0	95,126	0	95,126	(5,445)	-5.41 %
516190 - Other Donations	84,824	100,571	90,636	0	95,126	0	95,126	(5,445)	-5.41 %
CSCS0000000000000	0	100,571	90,636	0	95,126	0	95,126	(5,445)	-5.41 %
PWPW0000000000000	84,824	0	0	0	0	0	0	0	0.00%
Total Budget	9,018,048	17,167,659	16,984,757	1,564,032	8,306,318	0	9,870,350	(\$7,297,309)	-42.51 %

ATTACHMENT 6:
FINANCIAL CAPACITY SPREADSHEET

Financial Capacity Spreadsheet			
1	County/City Name	Howard County, MD	
2	Cost As A Percent Of Household Income		
2a	Median Household Income (MHI)	\$	121,160
2b	Total Number Of Households In Jurisdiction		114,170
2c	Average Annual Cost For Public Stormwater Related Management Programs	\$	42,608,400.75
2d	Annual Cost For Public Stormwater Related Management Programs Per Household	\$	373.20
2e	% Of MHI Spent On Public Stormwater Related Management Programs		0.31%
2f	Total Annual Stormwater Remediation Fee Per Household	\$	40.17
2g	% Of MHI Spent Annually On Stormwater Remediation Fee		0.03%
3	Cost Of Impervious Surface Restoration As A Percent Of Household Income		
3a	Total In Previous Permit Term Spent On The Impervious Surface Restoration Plan (ISRP)	\$	56,836,251.00
3b	Average Annual Cost Of The ISRP During The Previous Permit Term	\$	5,982,763.26
3c	Annual Cost Of The ISRP Per Household During The Previous Permit Term	\$	52.40
3d	% Of MHI Spent On The ISRP During The Previous Permit Term		0.04%
3e	Total Projected Cost For Restoration Portfolio	\$	340,867,206.00
3f	Projected Annual Cost For Restoration Portfolio	\$	42,608,400.75
3g	Projected Annual Cost For Restoration Portfolio Per Household	\$	373.20
3h	% Of MHI Spent On Projected Cost Of Restoration Portfolio		0.31%
4	Cost For Low-Income Residential Customers As A Percent Of Household Income		
4a	Percentage Of Households With Annual Income <\$25,000		7.70%
4b	% Of Income For Low Income Households Spent On Public Stormwater Related Management Programs		1.49%
4c	% Of Income For Low Income Households Spent On Stormwater Remediation Fees		0.16%
4d	% Of Income For Low Income Household Spent On The ISRP		0.21%
4e	% Of MHI For Low Income House Spent On Projected Cost Of Restoration Portfolio		1.49%
5	Key Socioeconomic Indicators		
5a	Percentage Unemployed		2.70%
5b	Median Household Income	\$	121,160
5c	Percent Of Individuals (All People) Below Poverty Level		5.00%
6	Financial Capacity Indicators		
6a	Debt Indicators	Bond Rating – GO ¹ Bonds	Aaa
6b		Bond Rating – Revenue Bonds	N/A
6c		Net Debt As A % Of FMPV ²	2.29%
6d	Financial Management Indicators	Property Tax Revenues As % Of FMPV	1.22%
6e		Property Tax Revenue Collection Rate	99.25%

Notes:

1. GO = General Obligation

2. FMPV = Full Market Property Value