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Carla

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 Interoffice Memorandum

**TO:** CARLA REID, GENERAL MANAGER/CEO

**THRU:** GARY GUMM, CHIEF ENGINEER *GG*  
ENGINEERING AND CONSTRUCTION TEAM

**THRU:** THOMAS HILTON, GROUP LEADER *TH*  
PLANNING GROUP

**FROM:** KENNETH DIXON, PLANNING UNIT COORDINATOR *Kenneth C Dixon*  
SEWER PLANNING UNIT, PLANNING GROUP

**DATE:** MARCH 3, 2016

**SUBJECT:** FINAL CLARKSBURG TEN MILE CREEK AREA SEWER FACILITY  
STUDY – Background, History, and Recommendations

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This memo serves to inform you that Planning Group staff, along with our BOA consultant team of CDM Smith and Environ-Civil Engineering (ECE), has prepared the final draft of the *Clarksburg Ten Mile Creek Area Sewer Facility Study*.

**Background**

In 2014, the Montgomery County Council (see attached Resolutions 17-1048 and 17-1167) and Montgomery County Planning Board approved a limited amendment to the 1994 *Clarksburg Master Plan and Hyattstown Special Study Area* for the Ten Mile Creek Watershed, considered by the county as a high quality stream. The limited amendment retained the 1994 Master Plan vision but refined the 1994 plan recommendations to (1) ‘create a well-defined corridor town that provides jobs, homes, and commercial activities;’ and (2) ‘preserve natural resources critical to the County’s well-being.’

*Water and Sewer Planning*

Water and sewer service was recommended for the Development Staging Area 4 in the 1994 Master Plan. The limited amendment recommended WSSC coordinate a comprehensive sewerage facility plan for this area and the requirement was incorporated into the service category change approvals for the Ten Mile Creek properties. Previously, WSSC coordinated the development of a sewer facility plan and preparation of a report, with the assistance of Rodgers Consulting for the Clarksburg Development Stage 3 Area (currently known as Cabin Branch) in 2004. Major properties involved in this most recent sewer study area are **Miles Coppola, Egan Mattlyn, and the Pulte and King Properties**. An existing Montgomery County detention facility -- currently served

by an existing WSSC pumping station and force main -- was considered in some of the early alternatives; however, due to the sensitive nature of the environmental requirements in this plan and the County's lack of interest in constructing new facilities on its property, those options were dismissed. The limited amendment recommends that sewer service to this area, minimize, if feasible, disturbance of environmental buffers and forested areas.

#### *Little Seneca Lake Water Quality Concerns*

Finally, the limited amendment addresses prior concerns expressed in public hearings regarding development in Ten Mile Creek's impact to the Little Seneca Lake as a low-flow augmentation reservoir to supplement the Potomac River as a raw water source to several water providers within the Potomac River basin during drought conditions. . WSSC staff, as well as County staff, has stated that planned development would not have a significant impact on drinking water quality.

#### *Historic District*

This study also includes an evaluation of alternatives to serve the Clarksburg Historic District, due to the condition of septic systems within the district and the County's strong interest in the district as a priority area in providing future public sewer. While the County has previously inquired with WSSC concerning its desire to build a small, interim wastewater pump station to serve the Historic District and a fire station that was proposed at the time, WSSC strongly feels this current final draft plan will adequately address future public sewer service to the Historic District. General Manager Jerry Johnson in a letter dated November 26, 2014 to the Office of the Montgomery County Executive offered the following:

1. the preferred location in the sewer study for a wastewater pumping station would serve portions of Ten Mile Creek and would also include the Historic District (in the report, this pump station has been identified as the '**Miles' Wastewater Pumping Station located on/near the Miles Coppola property**);
2. WSSC would work with the County to include the pump station serving the Historic District and some Ten-Mile Creek properties in the CIP; and
3. WSSC would design and construct the wastewater pump station, provided funding via SDC is available.

#### **Citizens Advisory Committee History and Process**

The Ten Mile Creek Sewer Facility Plan Citizen Advisory Committee (CAC) was composed of representatives of community, environmental, and development interests in the area covered by the Ten Mile Creek Limited Master Plan Amendment (TMC-LMPA) (2014) of the Clarksburg Master Plan (1994). The CAC was composed of approximately ten representatives that volunteered to participate in a detailed review of sewer infrastructure system alternatives that will provide sewer service to the areas envisioned to be served by public sewer in the TMC-LMPA. In December of 2014, WSSC presented

five initial alternatives in a public meeting at Rocky Hill Middle School to inform the public of the sewer study. Volunteers from the CAC were obtained through coordination with representatives of the Montgomery County Government, the Montgomery County Upcounty Regional Services Center, and through requests via WSSC's web site. The volunteers comprising the membership of the Ten Mile Creek Sewer Facility Plan CAC are:

- Bette Buffington, Buffington Property/Historic Clarksburg
- Stephen Carpenter, Ph.D., Historic Clarksburg District/Boys
- Julius Cinque, Past President Boyds Civic Association, Past President and Current Board Member of Sugarloaf Citizens Association, Member of Friends of Ten Mile Creek
- Stephen Collins, Pulte Group
- Bob Egan, Mattlyn/Egan, LLC
- Scott Graham, Upcounty Citizens Advisory Board
- Phil Isaja, Soltesz
- Anne James, Friends of Ten Mile Creek
- Michael Norton, Norton Land Design, Monaco Exclusive Renovation, LLC
- Dan Stein, Clarksburg Chamber of Commerce
- Cathy Wiss, Audubon Naturalist Society

Following the December public meeting, six separate CAC meetings were held from February 12<sup>th</sup> to September 24<sup>th</sup>, 2015. All meetings were open to the public. The CAC met with WSSC and support staff from Montgomery County Council, the Department of Environmental Protection (DEP), the Montgomery County Parks Department, and the Montgomery County Planning Department to discuss and review sewer system alternatives. The goal of the CAC was to provide a forum for the exchange of ideas and perspectives on sewer infrastructure alternatives as referenced above. Various perspectives and strong opinions were voiced in a courteous manner during the CAC process. Public attendees to the meeting were allowed to comment as a specified time in the meeting agenda. Additional alternatives were developed and added to the study from the CAC meetings and discussions. CAC input was used to develop a working draft of the Ten Mile Creek Sewer Facility Plan.

Meeting summaries (provided in the appendix of this report) of the CAC's proceedings were developed and sent out shortly after each meeting for review and comment by the CAC members. WSSC revised these meeting summaries based on any comments received. Members who felt the meeting summary did not accurately reflect their input after CAC review and comment had the option to submit their comments in writing to be a part of the meeting summary. Meeting summaries, agendas,

presentations, CAC comments, and other supporting documentation were posted to a web page created for public information on the Ten Mile Creek Sewer Study on the WSSC's website (URL link: <https://www.wsscwater.com/business--construction/major-projects/ten-mile-creek--clarksburg-sewer.html>)

The CAC did not vote on any items and all perspectives were considered during the CAC discussion on alternatives. WSSC and its consultant responded to various inquiries regarding alternatives for feasibility of implementation, followed by CAC discussions of relevant issues.

WSSC and its consultant proposed a working draft of the sewer infrastructure plan. This working draft of the sewer study was provided to the CAC for review and comment on October 30, 2015. Upon receipt in December 2015 of the CAC members' comments on the working draft and since no consensus was reached with the CAC on a final draft plan, WSSC has completed the final draft plan, with documentation of CAC input on the plan. WSSC has also provided in this plan a summary table showing its responses to the CAC member comments and revisions made to this final draft plan where warranted.

This WSSC final draft plan with CAC input and WSSC responses is expected to be forwarded by WSSC to the Montgomery County Council, in advance of briefings with the Montgomery County Planning Board and the County Council Transportation & Environmental (T&E) Committee in early 2016. The briefings to the Planning Board and the County Council T&E Committee are required to determine the ultimate sewer infrastructure for the Ten Mile Creek Service Area and the Historic District before specific facility projects are developed and programmed through the WSSC's Capital Improvements Plan (CIP) and initial planning commences with the Montgomery County's Planning Department and WSSC's Development Services Process in developing the specific properties identified in Ten Mile Creek limited amendment.

## **Recommendations**

### *Recommended Alternative*

As the study progressed several different alternatives were iteratively developed, as the limited amendment recommends, minimizing -- as feasible -- disturbance of environmental buffers and forested areas. Overall, 12 alternatives were developed comprising of varying sewer service options of gravity sewer, wastewater pumping station/force main, and low-pressure/grinder pumping system. As these alternatives were developed and reviewed during the sewer study and CAC process, they were evaluated for their advantages and disadvantages concerning reliability, constructability,

engineering and environmental impacts, and community impacts. Towards the end of the study, it was determined the Asset Management Program Unit assist in the study to evaluate and validate the recommendations as is now policy with most initiatives. Due to time constraints with the completion of the Clarksburg – Ten Mile Creek Area Sewer Facility Study, an abbreviated business case evaluation was performed on only six of the highest ranking alternatives. The business case evaluation, included in the appendix of the report, is comprised of (1) a lifecycle cost analysis that determines the costs and benefits (in terms of capital and operation and maintenance costs) of the additional assets to WSSC, and (2) a risk absorption analysis that looks at the additional risk WSSC would absorb associated with implementation of the alternatives.

From the business case evaluation, Alternative Number 12 (see attached sketch) is the recommended alternative for implementation in the Clarksburg Ten Mile Creek Area Sewer Study. This alternative consists of 8,100 feet of gravity sewer, two wastewater pumping stations, 4,400 feet of force mains, 6,000 feet of low pressure sewer, and 304 individual grinder pump units.

#### *Next Steps*

Montgomery County's Department of Environmental Protection (MCDEP) has requested that the report propose the next steps for the Ten Mile Creek area and the proposed 'Miles' pump station. As stated in the Background section of this memo, the County believes that action should immediately be taken by WSSC to program the design and construction of wastewater conveyance facilities for the Historic District's sewer service. While we feel further actions/steps will be needed, such proposals should be discussed once the study and preferred alternative is approved by the County Planning Board and Council.

We recommend that WSSC should, as soon as possible, arrange a meeting with pertinent County representatives to discuss our next steps regarding sewer service to Ten Mile Creek and Historic Clarksburg. WSSC and the County should discuss steps WSSC will take to incorporate a new wastewater pump station in the CIP, since other development upstream of the sewer basin within the Ten Mile Creek Study area will be dependent upon this facility.

Additional development in Ten Mile Creek is expected to occur through WSSC's Development Services Process as development projects proceed for the various properties identified. We would assume that the infrastructure needed to support these developments would likely require funding borne by the developer/applicant. Please note that WSSC projects required for the Pulte property's sewer service can occur independently of the other Ten Mile Creek properties, pending settlement and/or

resolution of current litigation/disputes with Montgomery County Government regarding the development of the property under the limited amendment.

An important discussion with County staff should also include the funding required by WSSC, the County, and property owners to design and construct the extension of public sewer lines to serve the Clarksburg Historic District. Such discussion is not a part of this study nor was offered by Mr. Johnson.

*Grinder Pump/Low Pressure System – WSSC Policy*

In 2005, WSSC approved and enacted standard procedure ENG 04-10, Grinder Systems Policy and Guidelines. This policy determined where it is appropriate to construct grinder systems for public sewer extensions. Item 3.1 under 'POLICY' states that grinder systems are allowed only when the extension of gravity service and the use of a centralized pumping station/force main system are determined to be infeasible by WSSC. In addition, any use of grinder/low-pressure systems must be compatible with County water and sewer service plans, master plans, and policies. Two exemptions to the policy are granted under the cases where (1) a health hazard is documented by the County and (2) a location/site where gravity service extensions would be impacted by documented unstable soils. Finally, for proposed developments of 50 or more units under a grinder pump/low-pressure system, the feasibility of centralized wastewater pump stations should be considered. In light of the recommendation and the environmental sensitivity of this project, an exemption to this policy will be required for some of the future developments to occur.

A portion of the recommended alternative includes low pressure sewer with individual grinder pumps. During the sewer study and CAC process, the Environmental Unit of the Technical Services Group (TSG) was consulted. Using the information available for the report (specific details regarding development plans and location of infrastructure on the various properties were not made available), TSG staff determined using procedures established in SP ENG 04-10 that pressure sewer service may be feasible for the Pulte property. Due to high density, TSG believes that it is unlikely that a pressure sewer system will have high detention time to cause odor problems. However, TSG advised us that some odor problems could develop while the system is partially built out. TSG staff recommended prohibiting gravity connections to the sewer extension along Clarksburg Road that will extend from the Cabin Branch to the Pulte property low pressure system. As specific developments with grinder systems are submitted for the Ten Mile Creek Area, WSSC staff will review the designs for the low pressure systems to ensure they meet current design guidelines and standards.

This area can be also feasibly served by a wastewater pump station and force main and it is believed, despite recent infrastructure force main failures of concern to

TOM HILTON, GROUP LEADER, PLANNING GROUP  
FINAL DRAFT OF CLARSKBURG TEN MILE CREEK SEWER FACILITY STUDY  
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Montgomery County, a gravity sewer, pump station and force main system would provide a higher level of service to our customers compared to that of individual grinder pump units. However, since the limited master plan amendment recommended that sewer service to Ten Mile Creek minimize -- as feasible -- disturbance of environmental buffers and forested areas; and since the County, the CAC, and the community at large placed a large emphasis on evaluating sewer service alternatives which may impact the environmental resources surrounding the Ten Mile Creek area, it is felt that an exemption to the policy in SP ENG 04-10 is warranted.

*Transmittal of this Report and Recommendations Memo to Montgomery County Government*

We recommend the final draft report and supporting documentation, be endorsed and transmitted via letter prepared for the General Manager's signature to Montgomery County for consideration by the Montgomery County Planning Board and Montgomery County Council.

We would like to thank and express our appreciation to all of the WSSC and consultant support staff who worked with us in the development of this very important study.

Endorsed and Transmitted by Engineering and Construction Team Chief to General Manager

Conla,  
Also suggest we begin the process of initial steps to add the "proposed Miles Pump Station" to the CIP. Then upon approval by me we will already be ready to insert the project to the CIP & get the process started.  
3/4/16  
J.P. Martin 3/9/16

- Cc: J.C. Langley, Chief of Plant Operations, Production Team  
Clive Mattis, Acting Chief of Utility Services  
Jim Neustadt, Communications and Community Outreach Office  
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