



Mt. Washington Source Control Project

Virtual Community Update

August 31st, 2021

6:00 - 7:30 PM



Agenda

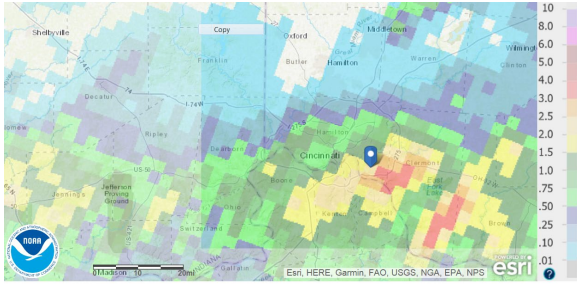
- Introductions
- Project History
- Project Status Update
- Proposed Alternative
- Project Scope & Responsibilities
- Schedule & Implementation Plan
- Questions

Introductions

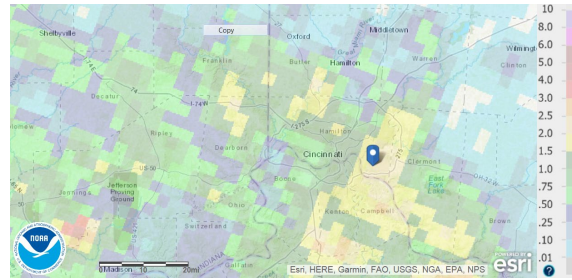
- MSD Director – Diana Christy
- MSD Deputy Director/Chief Engineer – Ryan Welsh
- MSD Design Supervisor – Matt Spidare
- MSD Policy and Governmental Affairs Manager – Cassandra Hillary
- Project Manager – Andrew Hunter

Historic Sewer Backup Events

June 22, 2011



July 18, 2012



Modeling indicates that flooding occurs when rainfall exceeds 2-inches in an hour. (between 10 and 25 year recurrence for SW Ohio)

June 22, 2011 (2.07" in under 1.5 hours)

- 10-25 year storm

July 18, 2012 (2.2" in 1.5 hours)

- 10-25 year storm

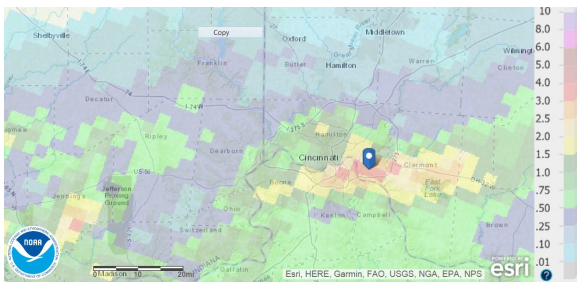
July 28, 2016 (3.94" in 2 hours)

- +100 year storm

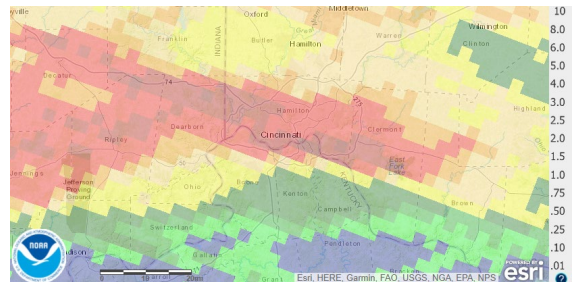
June 16, 2019 (3.7" in 6.5 hours)

- 10-25 year storm

July 28, 2016



June 16, 2019



Project History

2018

MSD proposed a green infrastructure project that was rejected by residents

2019-2020

MSD Initiates Design of Mt. Washington Source Control Project (Storm Sewer Project)

- BoCC approval of design funding (6/2019) for a project upstream of the intersection of Glade & Mayland
- Initial design work focused on installation of over-sized storm sewers that could store, then slowly release stormwater
- Challenges were encountered in the summer of 2020 due to utility conflicts and the need for easements
- Re-planning effort was undertaken starting in late 2020 to incorporate future CSO reduction at the request of County

2021

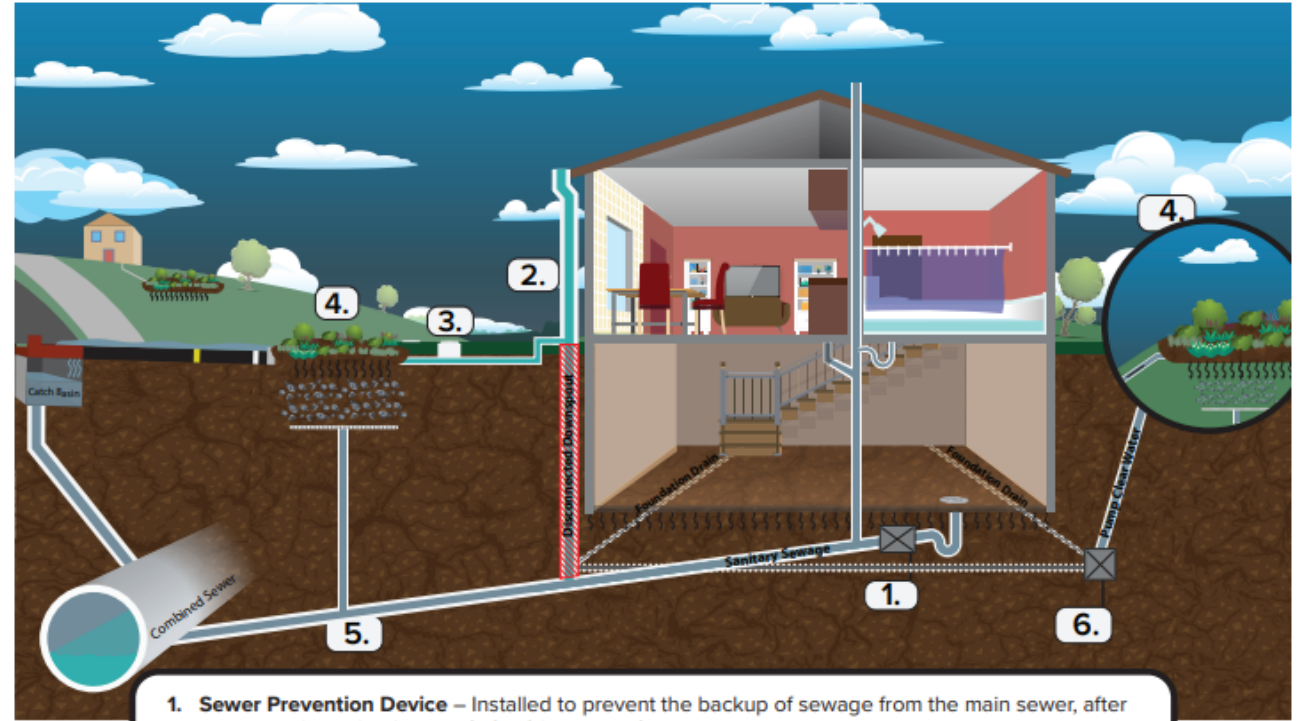
MSD Resumes Design of Mt. Washington Source Control Project (Storm Sewer Project)

- Larger project area (now extends downstream past Beacon)
- Smaller pipes for stormwater conveyance, not storage
- Fewer utility conflicts and fewer easement requirements
- SBU protection in large storms
- CSO reduction achieved in future downstream project

NOTE: MSD continues to offer backflow prevention devices to eligible property owners

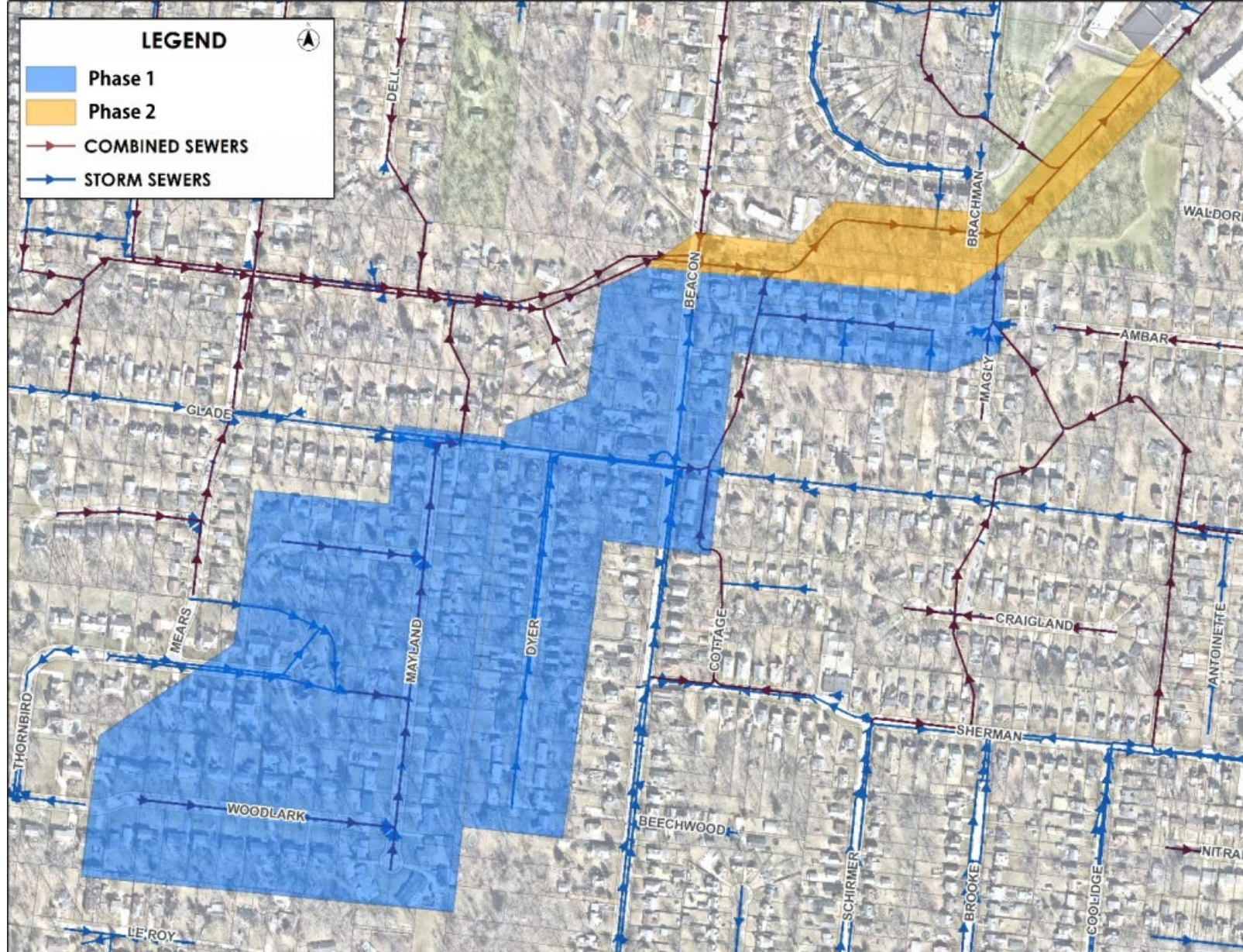
Potential Solutions

- Individual property grinder pumps.
- Private downspout disconnection and green infrastructure.
- Stormwater storage ponds or basins.
- Partial sewer separation with oversized storage pipes.
- Partial sewer separation with new conveyance sewers.



- 1. Sewer Prevention Device** – Installed to prevent the backup of sewage from the main sewer, after necessary investigations and plumbing upgrades.
- 2. Disconnected Downspout** – Disconnected from the building sewer and re-directed to on- or off-site green infrastructure or future storm sewer.
- 3. Installation of a new drainage pipe and cleanout** – Installed to re-direct rainwater to green infrastructure or future storm sewer to keep water out of the main sewer.
- 4. Green infrastructure (e.g., rain garden or bioinfiltration basin)** – Installed on private property to benefit a single homeowner or on public property to benefit multiple properties. Foundation drains and downspouts are re-directed to the green feature to keep water out of the main sewer.
- 5. Underdrain to Building Sewer** – Installed to take excess water not captured by a green feature to the main sewer but at a slower rate.
- 6. Stormwater and Groundwater Sump Pump** – Installed to re-direct water from a foundation drain to green infrastructure or future storm sewer.

Since the last community update meeting, MSD has...



- Moved utilities out of the road.
- Expanded the area of study.
- Finished the expanded planning effort and begun the supplemental survey and design.

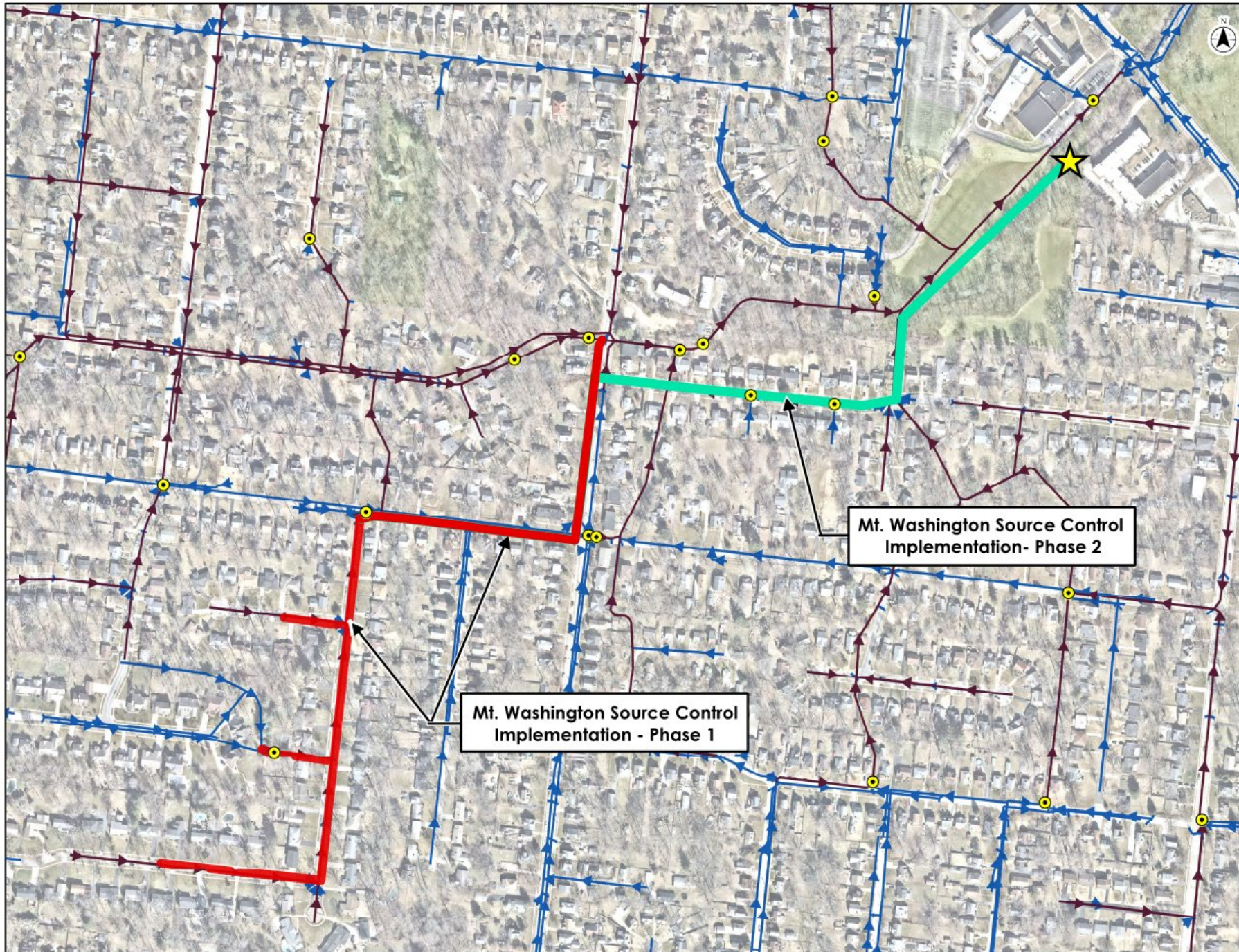
Planning/Design Criteria

- Alignment was laid out to stay within the right-of-way as much as feasible.
- Stormwater runoff from right-of-way to be separated from the combined sewer system.
- Private property downspouts and gutters are to be impacted only as a last resort.
- Storm sewer pipes are designed to accept downspout disconnections in future.
- Level of Service to meet or exceed MSD and SMU standards.

Proposed Alternative

- The previous project strategy (in-line storage of stormwater) required significant private property disruption, utility conflicts and other risks that became apparent after design work began.
- The project that is now proposed minimizes these risks so that the project will:
 - Reduce the risk of SBUs in the neighborhood utilizing significant sewer separation AND;
 - Minimize disruption to private property (and avoid delays associated with easements), AND;
 - Facilitate a future project that will substantially reduce overflow volumes at CSO 182, a Wet Weather Improvement Program (WWIP) project.

Project Phasing



Easement Acquisition

- Design process has already resumed.
- Easement requirements will become clear after 50% plans are approved (Fall 2021) and the process of acquisition can begin.
- Minimum separation requirements from other utilities, construction conflicts, and maintenance of traffic concerns can quickly reduce the space available for new infrastructure, and may require easements.
- Proposed alignment is the least disruptive alternative

Project Scope & Responsibilities

Mt. Washington Source Control Project – Phase 1 project scope:

- Separate stormwater from the roadway within the neighborhood and convey it to the CSO 182 trunk sewer.
 - Approx. 2,700 feet of new pipe upstream of Glade & Mayland
 - Approx. 2,900 feet of new pipe downstream of Mayland & Glade
- Includes design, permitting, some utility relocations on Glade and Beacon, easement acquisition and other associated work.
- Project Roles:
 - Design Project Manager – Andrew Hunter, MSD (Stantec)
 - Design Supervisor – Matt Spidare, MSD
 - Design Consultant - Jones-Warner, Inc.

Schedule & Implementation Plan

- Survey and Design work already underway
- Easement acquisition and permitting on an accelerated schedule up to one year.
- Final Design prepared for competitive bidding – anticipated in fall/winter 2022.
- Construction starting late spring 2023.

	2021												2022												2023												2024												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Planning and Business Case	█	█	█	█	█																																												
BCE Approval						█																																											
Survey							█	█	█																																								
50% Design - Proposed Sewer Location Set																																																	
Right of Way																																																	
90% Design - Permit Submittal																																																	
Permitting																																																	
Design Completion																																																	
Bid Package Preparation																																																	
Advertisement, Bidding, and Award																																																	
Construction																																																	

Questions?

Project Website: www.msdbg.org/MtWashington

Email: MSD.Communications@cincinnati-oh.gov

MSD Customer Service Phone: (513) 557-3594