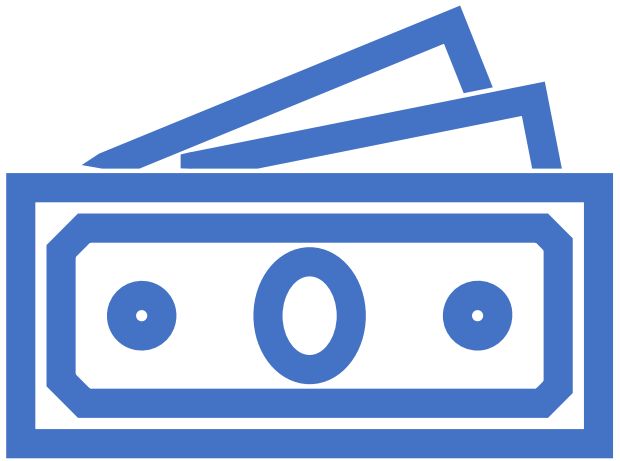
MSAR Task Force Meeting
September 21, 2021

Potential Studies for Task Force Consideration

Potential Study No. 1
Determine Flow Rates In Impaired Waters that Result in High Flow Suspension

- Primary Purpose:
  - Develop scientific basis for determining size of rain event that must be controlled (i.e., is not subject to HFS)
  - Becomes target for bacteria load reduction
- Proposed Approach:
  - Task 1 – Obtain and review field measurement data from USGS
  - Task 2 – Evaluate velocity and depth-velocity against HFS criteria
    - Determine peak flow rate (cfs) that is likely to generate unsafe conditions
  - Task 3 – Compare velocity or depth-velocity flow rate v. peak flows
  - Task 4 – Prepare technical memorandum summarizing findings and recommendations for application of HFS for Wet Weather CBRP



Potential Study No. 1
Preliminary Budget & Schedule

- Labor Costs: $25,000 - $30,000

- Schedule Considerations:
  - Use results to inform wet weather CBRPs & other permit updates

Potential Study No. 2
Quantify Changes in Bacteria Loads Reaching Impaired Waters Since 2005 TMDL Development

- Primary Purpose
  - Quantify the bacteria load reduction already achieved through existing stormwater facilities and other changes in facilities as compared to bacteria loads estimated during 2005 TMDL development process.
- Proposed Approach
  - Task 1 - Prepare data request & collect information on existing regional stormwater capture facilities and other changes in facilities.
  - Task 2 – Estimate stormwater volume and bacteria load captured. Summarized by major sub-watershed.
  - Task 3 – Develop recommended approach for estimating bacteria load reduction within Mill Creek Wetland.
  - Task 4 – Prepare technical memorandum summarizing findings.

Potential Study No. 2
Preliminary Budget & Schedule

- Labor Costs: $25,000 - $30,000

- Schedule
  - Use results to inform wet weather CBRPs and other permit updates

Potential Study No. 3
Potential to Develop Bacteria Offset Program Related to Clean-up of Homeless Encampments

- Primary Purpose
  - Develop study design for collection of wet weather data to estimate E. *coli* loads attributable to homeless encampments in the MSAR TMDL waters.
- Proposed Approach
  - Task 1 – Develop study design for collection of necessary data during wet weather (targeting small to moderate non-HFS storms).
  - Task 2 – Implement wet weather special study as designed.
  - Task 3 - Technical memorandum with data results and framework for offsets

Proposed Study No. 3 Preliminary Budget & Schedule

- Labor Costs – Tasks 1 & 3: $30,000 - $35,000
- Costs – Task 2
  - To be developed separately based on study design
- Schedule Considerations
  - Need multiple storm events spread across several wet seasons
  - Helpful to collect at least one storm even for 2021-2022

Proposed Study No. 4
Characterization of Bacteria Human Marker Loads at MS4 Outfalls

- Primary Purpose
  - Design a study approach to estimate the signal of human associated fecal bacteria and other tracers during wet weather events.
- Primary Approach
  - Task 1 – Design a study to collect necessary data to estimate the signal of human associated fecal bacteria.
  - Task 2 – Implement study.
  - Task 3 – Technical memorandum.

Proposed Study No. 4 Preliminary Budget & Schedule

- Labor Costs – Tasks 1 & 3: $30,000 - $35,000
- Costs – Task 2
  - To be developed separately based on study design
- Schedule Considerations
  - Need multiple storm events spread across several wet seasons
  - Helpful to collect at least one storm even for 2021-2022

Next Steps

- Identify which studies are of interest to carry forward.
- Memorandum re: potential studies to be provided to Task Force members for review and comment.
- SAWPA to evaluate 2021-2022 budget.
- Seek Task Force approval at October meeting agreed on studies of interest.