

Status of Stormwater Reuse

MIDS Work Group
January 18, 2013

Stormwater Reuse Status of Work

- Draft Memorandum Developed
 - Select Literature Review
- 12/3/12 Meeting with Agency Staff
- Preliminary Reuse Modeling Complete
- 1/10/13 Meeting with Technical Team



Photo: Barr Engineering Company

Stormwater Reuse Next Steps



Photos: FRS Design Group, LLC at <http://frsdesign.com/>

- Late Jan./Early Feb. Meeting with Agency Staff & Technical Team
- Finalize Reuse Memorandum & Modeling
- Feb. 15 Meeting with MIDS Work Group

Stormwater Reuse Literature Review—Concerns

- Public health
 - Exposure to pathogenic bacteria
 - Cross-contamination of potable water
- Toxic spills within catchment area
- Operations and maintenance
- Chloride impacts on irrigated vegetation

Stormwater Reuse Literature Review—General Guidance Considerations:

- Guidance/standards originally developed for reclaimed water
- Treatment requirements often dependent on end use
 - Restricted or public access & potential for consumption
- Scale (residential vs. commercial)
- Cross-contamination potential
- Operation/maintenance/monitoring
- Residence time

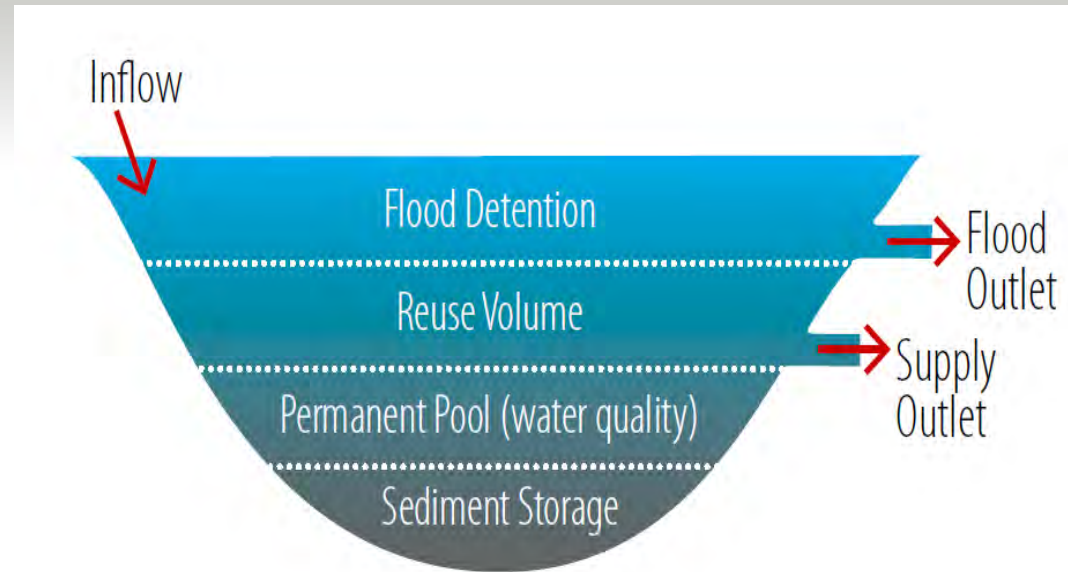
Stormwater Reuse

Minnesota State Agency Jurisdictions

- MPCA: No official jurisdiction
- MDH: No official jurisdiction
- DLI: Regulation of conveyance to “point of disposal” (e.g., point where pipe discharges to stormwater pond)

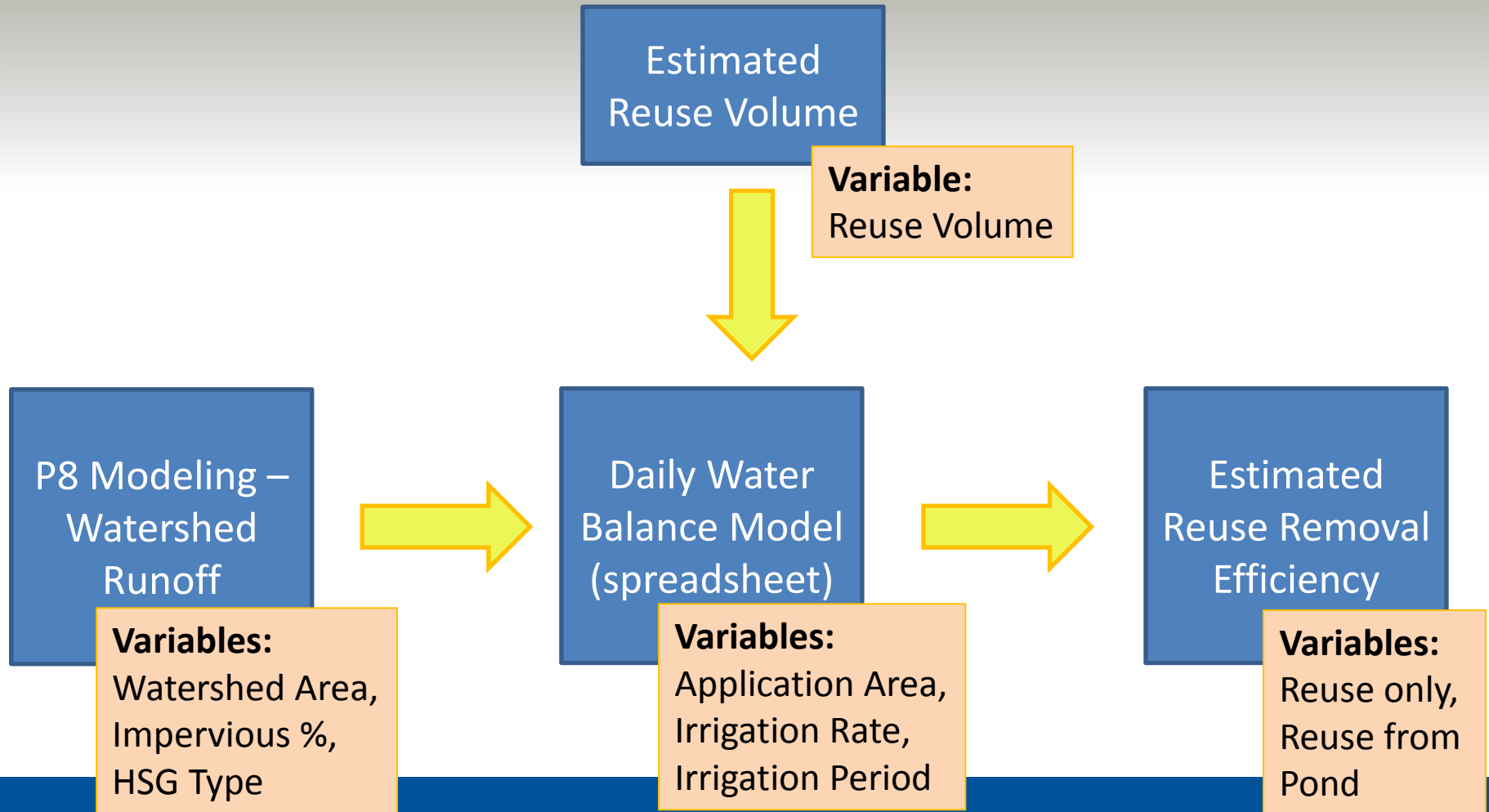
Stormwater Reuse Preliminary Modeling

- Range for
 - volume reduction
 - pollutant removal
- Common scenarios
 - Reuse from a stormwater pond
 - Reuse from a cistern or tank



Source: Metropolitan Council Stormwater Reuse Guide

Stormwater Reuse Preliminary Modeling: General Methodology Framework



Stormwater Reuse

Future Work (beyond current MIDS workplan):

Jurisdiction:

- Group of agency staff to begin defining state agency roles/jurisdiction as it relates to stormwater reuse systems

Stormwater Reuse

Future Work (beyond current MIDS workplan):

Research:

- Investigation into water quality in stormwater ponds and comparison to reuse water quality standards/guidelines
- Health risk assessment of non-potable water (including stormwater) and investigation into cases of human illness related to stormwater reuse systems

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Future Work (beyond current MIDS workplan):

Modeling:

- Development of full range of stormwater reuse curves to encompass variability in all reuse scenarios
 - Applications rates
 - Irrigation season
- Incorporation of stormwater into MIDS calculator