

Stormwater Code & Ordinance Review & Update Project: Stakeholder Group Meeting



December 17, 2020

Agenda

- 1) Welcome
- 2) Project update
- 3) Summary and discussion of major code/policy recommendations
- 4) Next steps

Project Objectives

- **Update City Stormwater Management Code (Title 13)**
 - Consolidate stormwater related content scattered throughout City Code
 - Eliminate conflicts and overlap
 - Align development requirements with City/PWSA goals and objectives including regulatory compliance goals
- **Develop New Technical Resources for Stormwater**
 - Stormwater Design Manual
 - Updates to PWSA Developer Manual
- **Provide Process Improvement Recommendations and Cost Evaluation**
 - Stormwater Plan Review, Inspection, and Enforcement
 - Other stormwater-related roles and responsibilities between agencies

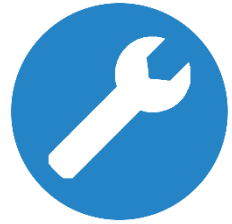
Project Update - Schedule



Project Update – Work to Date

- Review of SWM-related code and technical guidance
- Review of regulatory requirements including new 2020 MS4 permit
- Mapping and analysis of current review/approval processes related to SWM and land development approvals
- Mapping and analysis of current SWM construction closeout, inspection, and enforcement processes
- Agency staff and stakeholder input:
 - Agency Workgroup meetings
 - Agency staff interviews
 - Stakeholder Group meeting, survey, and focus group
 - Public-facing project website with survey
- **Technical analysis and development of policy recommendations**

Code/Policy Recommendation Topics



Process improvements



Technical changes



Alternative compliance, trading, equity, and incentives



Inspection and enforcement



Two-Step Approval Process

Recommendation

Two-step stormwater plan review/approval process:

1. Conceptual review – Prerequisite for ROZA
2. Final technical review – Prerequisite for Building or Land Ops Permit

Why?

- Early identification of opportunities and deficiencies associated with current one-step process.
- Eliminate need for final stormwater design to get ROZA.



Coordination with Plumbing Permit Requirements

Recommendation

Improve SW Plan review coordination with ACHD plumbing code/permit requirements:

- Alignment and referencing of design requirements.
- Pre-plumbing permit application coordination.
- Prerequisite SWM approval for plumbing permit.

Why?

Eliminate changes to SWM designs that occur after city approval to receive plumbing permits.



Land Operations Permit

Recommendation

Clarify and better align Land Operations Permit requirements with stormwater code:

- Add 10,000 SF of earth disturbance and 5,000 SF increase in impervious area as permit thresholds.
- Add references of overlap with SWM thresholds in Building Code (Title 10) and city website.
- Add SW Plan review sign-off to land operations permit application.

Why?

Clarify relationship between land operations and SWM code requirements and align thresholds.



Small Project Stormwater Review

Recommendation

Eliminate small project stormwater review or encourage in-lieu fee for projects of this size.

Perform additional analysis on the need for lower earth disturbance thresholds in targeted areas with flooding and basement backup issues.

Why?

- Smaller BMPs are more expensive to build and maintain per area managed than larger BMPs.
- Reduce risks of long-term performance and O&M issues and related burden on city inspection and enforcement resources for limited benefit.



Discussion: Process Improvements

Recommendations

- Two-step stormwater plan review/approval process.
- Improve SW Plan review coordination with ACHD plumbing code/permit requirements.
- Clarify and better align Land Operations Permit requirements with stormwater code.
- Eliminate small project stormwater review or encourage in-lieu fee for projects of this size.
- Perform additional analysis on the need for lower earth disturbance thresholds in targeted areas with flooding and basement backup issues.



Filtration in Separate Sewer Areas

Recommendation

Add filtration requirement to code for non-infiltrating BMPs, with design guidance in Stormwater Design Manual to target Commonwealth designated pollutants of concern for impaired waters in Pittsburgh.

Why?

Align developer requirements with City/PWSA regulatory requirements.

Ensure receiving waters are not impaired by MS4 discharges from developers and Pittsburgh/PWSA MS4 investments are not negated by discharges from development.



Sanitary Sewer Inflow

Recommendations

Add code to require upkeep of private laterals (Title 4 with reference in Title 13).

Require liners, utility offsets, and other best practices in areas of high inflow and infiltration in Stormwater Design Manual.

PWSA develop mapping of areas of high inflow and infiltration for inclusion within Stormwater Design Manual.

Why?

Reduce stormwater contributions to inflow and infiltration.



Climate Change

Recommendation

Require the use of future climate rainfall projections for design of SWM BMPs.

- 8% to 23% increase in rainfall depth depending on storm frequency (CMU).
- 13% increase of 95th percentile rainfall depth.

Consider developer incentives to meet longer term climate projections.

Why?

Reduce flooding and basement backups.



Pretreatment

Recommendation

Include code requiring stormwater BMP pretreatment, with design standards provided in the Stormwater Design Manual.

Why?

Enhance BMP performance and longevity through sediment removal.



Non-sewer Areas/ROW Discharges/Landslides

Recommendation

Establish hierarchy for stormwater discharges in non-sewer areas:

- New stormwater outfall
- Extend existing sewers
- Surface discharge to public right-of-way

Require downstream hydraulic analysis for discharges to right-of-way.

Include comprehensive design requirements for hillside areas in Stormwater Design Manual and reference in code.

Why?

Reduce impacts of stormwater discharges to right-of-way and hillside areas.



Infiltration Testing and Soil Characterization

Recommendation

Add soil infiltration and testing requirements to code, with additional technical guidance in Stormwater Design Manual.

Establish clear infiltration infeasibility criteria including minimum infiltration rate.

Require infiltration waiver when infiltration infeasible.

Why?

Provide clarity around the proper use of infiltrating BMPs.



Technical Infeasibility Criteria

Recommendation

Define measurable infeasibility criteria in the Stormwater Design Manual for specific conditions including slopes, groundwater, contaminated soils, undermined areas, utilities, and trees.

Why?

Provide clear guidance on technical infeasibility and pathway to use of in-lieu fee.



Discussion: Technical Changes

Recommendations

- Add filtration requirement to code for non-infiltrating BMPs, with design guidance in Stormwater Design Manual.
- Add code to require upkeep of private laterals (Title 4 with reference in Title 13).
- Require liners, utility offsets, and other best practices in areas of high inflow and infiltration in Stormwater Design Manual.
- PWSA develop mapping of areas of high inflow and infiltration for inclusion within Stormwater Design Manual.
- Require the use of future climate rainfall projections for design of SWM BMPs.
- Consider developer incentives to meet longer term climate projections.
- Include code requiring stormwater BMP pretreatment, with design standards provided in the Stormwater Design Manual.
- Establish hierarchy for stormwater discharges in non-sewer areas.
- Require downstream hydraulic analysis for discharges to right-of-way.
- Include comprehensive design requirements for hillside areas in Stormwater Design Manual and reference in code.
- Add soil infiltration and testing requirements to code, with additional technical guidance in Stormwater Design Manual.
- Establish clear infiltration infeasibility criteria including minimum infiltration rate.
- Require infiltration waiver when infiltration infeasible.
- Define measurable infeasibility criteria in the Stormwater Design Manual for specific conditions.



In-lieu Fee Compliance

Recommendation

Set in-lieu fee at \$600,000 per acre-in of volume managed to reflect full life cycle cost of design, building, and maintaining offset projects.

- Construction: \$285,000
- Operations and Maintenance: \$145,000
- Construction Management and Inspection: \$48,000
- Design: \$45,000

Why?

New in-lieu fee reflects real lifecycle costs of implementing projects, but still provides alternative compliance for truly constrained sites.



Waivers: Reduced Tap-in Fees

Recommendation

Reduce tap-in fees by at least 10% for affordable housing developers, M/WBE applicants, and small businesses.

Why?

Fees can be a harder hit for disadvantaged applicants, helps to offset PWSA requirements for CCTV and flow monitoring.

Minimal reduction in revenue for PWSA, but needs more analysis.



Waivers: Expedited SWM and WSU Technical Review

Recommendation

Provide 5-day technical review for affordable housing developers, small-businesses, and M/W/BE businesses.

Why?

Target applicant classes are less well resourced than larger or market rate developers. Expedited reviews help with cash flow and allow target applicants to get to construction sooner.

Small percentage of applicants in target classes means expedited reviews won't require more staffing.



Same Owner Rate Control Offsets

Recommendation

Same-owner rate control offsets to allow developers to meet rate requirements at the downstream sewer connection point rather than the project boundary.

Why?

Provide flexibility in compliance for developers, encourage the use of non-structural practices like tree planting.



Same Owner Volume Trading

Recommendation

Same-owner trading for volume requirement to allow developers with constrained projects to manage equivalent volume elsewhere within property holdings in the same sewershed.

Why?

Provide flexibility in compliance for developers, encourage more ground level vegetated systems



Innovation Track

Recommendation

Create three innovation tracks to encourage the use of innovative technology but also require rigorous proof of performance.

1. Prior certification
2. Prior study but no certification
3. No certification or prior study

Why?

Innovative technologies can improve performance and move the industry forward. Developers and reviewers both benefit from clear ground rules on how these projects get approved.



Rate and Volume Incentives

Recommendation

Fixed reimbursement grant program (per additional unit storage volume) for:

- Added volume up to 2.5 in. of precipitation from regulated or non-regulated impervious area.
- Rate control using future precipitation estimates reflecting climate change.

Why?

Incentives grant program provides direct financial incentive for developers to provide additional level of control, and is much easier to administer than stand alone program for retrofits.

Grants are a better choice than property tax abatement, which requires state enabling legislation.



Preferred Technology Incentives

Recommendation

Expedited 5-day SWM technical review for projects that use a combination of preferred vegetated practices, active control systems, and water reuse systems to meet the majority of the volume requirement.

- % IA Managed Using Vegetated Practices
- % IA Managed Using Active Controls
- % of WQ Volume Reused

Why?

Developers tend to build underground systems that have limited co-benefits that come with preferred technologies. Active controls tend to over-perform passive systems.



Discussion: Alternative Compliance, Trading, Equity, and Incentives

Recommendations

- Set In-lieu fee at \$600,000 per acre-in of volume managed to reflect full life cycle cost.
- Reduce tap-in fees by at least 10% for affordable housing developers, M/WBE applicants, and small businesses.
- Provide 5-day technical review for affordable housing developers, small-businesses, and M/W/BE businesses.
- Same-owner rate control offsets to allow developers to meet rate requirements at the downstream sewer connection point rather than the project boundary.
- Same-owner trading for volume requirement to allow developers with constrained projects to manage equivalent volume elsewhere within property holdings in the same sewershed.
- Create three innovation tracks to encourage the use of innovative technology but also require rigorous proof of performance.
- Fixed reimbursement grant program (per additional unit storage volume).
- Expedited 5-day SWM technical review for projects that use a combination of preferred vegetated practices, active control systems, and water reuse systems to meet the majority of the volume requirement.



Erosion & Sediment Control Inspection and Enforcement

Recommendation

Implement an erosion and sediment control inspection and enforcement program.

Why?

Required for MS4 permit compliance.



Post-Construction BMP Inspection and Enforcement

Recommendation

Implement a post-construction BMP inspection and enforcement program.

Why?

Required for MS4 permit compliance.



Discussion: Inspection and Enforcement

Recommendations

- Implement an erosion and sediment control inspection and enforcement program.
- Implement a post-construction BMP inspection and enforcement program.

Next Steps

Dec. 31 – Send all comments to the project team

- Complete survey and/or email: alexis.meier@eholdingsinc.com

Week of Jan. 4 - Project team reviews complied comments with DCP/PWSA

Feb. 28 – Project team completes additional evaluation/analysis and presents final recommendations to DCP/PWSA

March – Development of code revisions and review with Stakeholder Group

April – Submission of amended code to Planning Commission with public notice 21 days in advance of Planning Commission public hearings

June – Submission of amended code to City Council with public notice 21 days in advance of City Council public hearings