Stormwater Code Update

Planning Commission Briefing
June 29, 2021
Stormwater Code Overview

• PWSA and DCP have been conducting a stormwater code update project with broad agency and stakeholder involvement.

• Known as 'SCORU' - Stormwater Code & Ordinance Review and Update

• This update follows the Act 167-mandated code update adopted in 2019 for compliance with State and County Act 167 Model Ordinance.

• AKRF has been the prime consultant on this project. They have expertise working on SWM code updates in numerous municipalities in PA and elsewhere.
Stormwater Code 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
Timeline

- Planning Commission Review – June 29th
- Planning Commission Hearing – July 13th
- City Council Hearing – August (TBD)
  - Mostly in line with time requirements for MS4 agreement with EPA
  - Timed to coincide with PWSA Stormwater Fee Implementation
- PWSA Rate Filing with PUC – March, PWSA Rate Approval by PUC – January 2022
Stormwater Code Amendments to PC

• The aspects that are most pertinent to Planning Commission are those items related to the Zoning code, including:

• Moving SWM-related requirements from Title 9 to Title 13, which was created in 2019, solely for stormwater.

• Modifications to Uptown & RIV district SWM requirements
  • Adjusting bonus point requirements
  • Elimination of small project SWM requirements (500-5,000 SF)

• Ensuring proper coordination and referencing between Title 4, Title 9, Title 13, Title 10 Building Code, and other County and State requirements (Co. plumbing, erosion & sediment control, etc.)
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
- Final policy recommendations incorporating feedback, comments, and additional analysis
Stakeholder Engagement

• Agency Working Group
  • At least five formal meetings with lots of touch-bases in between with specific agencies.
  • City (Law, PLI, Zoning, Planning, DPW, DOMI), PWSA, ACCD, ACHD

• Stakeholder Group
  • Three meetings with a total of 123 attendees along with a focus group on hardship waivers
  • Engineers, developers, architects, community organizations, watershed groups, institutions and other large land owners

• Consultants conducted numerous individual interviews with agency and stakeholder group members to assess existing code, processes, problems
Key Changes to Title 9

• Relocation of Stormwater Management Overlay District (906.07)

• Elimination of Small Project Stormwater Standards (915.03)

• Adjustment of Rainfall Performance Points (915.07)
  • From 1.5 inches to 2 inches

• Added references to Title Thirteen and Stormwater Design Manual

• Clarification about RIV Riparian Buffer Zone requirements
Title Thirteen Recommended Improvements

• Two-Step Review Process
• Better Coordination with Allegheny County Plumbing Permits
• Clarification of Filtration Requirements in Separate Sewer Areas
• Requirements to Reduce Sanitary Sewer Inflow
• Public Health and Safety release rates
• Addressing Climate Change
• Strengthening Pretreatment Requirements
• Limiting Right-of-Way Discharges
• Limiting Groundwater Discharge
• Addressing Non-Sewered Areas

• Controlling Discharges to Landslide Prone Areas
• Infiltration Testing Requirements
• Stronger Technical Infeasibility Criteria
• Consistent In-Lieu Fees
• Hardship Waivers for M/W/VBEs and Affordable Housing Developments
• Same Owner Banking and Trading
• Innovation Track for Approving New Technologies
• Incentives for Preferred Technologies and Additional Stormwater Management
Recommendations

• Two-step stormwater plan review/approval process.
• Improve SW Plan review coordination with ACHD plumbing code/permit requirements.
• Clarify Land Operations Permit requirements with stormwater code.
• Eliminate small project stormwater standards.
• Perform additional analysis on the need for lower earth disturbance thresholds in targeted areas with flooding and basement backup issues.
Recommendation
Eliminate small project stormwater standards.

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.
**Climate Change**

**Recommendation**

Require use of future climate rainfall projections for SWM BMP design.
- 8% to 23% increase in rainfall depth depending on storm frequency (CMU).
- 13% increase of 95\textsuperscript{th} percentile rainfall depth.

Consider developer incentives to meet longer term climate projections.

**Why?**

Reduce flooding and basement backups.

**Changes to Recommendation**

Performed marginal cost analysis between existing rainfall estimates and future climate change rainfall estimates.
Public Health and Safety Release Rate

**Recommendation**

Additional peak rate controls for target watersheds prone to flooding and basement backups.

Regulated activities would be required to reduce post development 10-year, 24-hour peak flow with climate change projections to the pre-development 2-year, 24-hour event peak flow using existing rainfall estimates.

**Why?**

To reduce flooding and to protect health and safety of downstream residents in known flood prone areas.
Summary of Methodology

Ranked the combined watersheds using a flood susceptibility score that used:

- PWSA flooding complaint database
- Existing hydraulic model capacity analysis

Highest scoring watersheds subject to public health and safety release rate requirements. (~25% of the City).

Overlap with Act 167 watersheds.

- Already have release rate in place
- Added to supplement, not replace, Act 167 regulations
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.
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

Proposed code language includes: “The fee in-lieu payment amount may be adjusted annually after January 1, 2022 based on the percentage change in the United States Bureau of Labor Statistics Consumer Price Index for All Urban Consumers for all items for the Pittsburgh area.”

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 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.
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.
Next Steps

• **June**—Submission of amended Zoning Code (Title 9) to Planning Commission with public notice 21 days in advance of Planning Commission public hearings

• **July**—Planning Commission public hearings for Zoning Code (Title 9) amendments
  • June 29th – Planning Commission briefing
  • July 13th – Planning Commission hearing

• **July**—Submission of amended code to City Council with public notice 21 days in advance of City Council public hearings