



WES Sanitary and Stormwater Rules and Standards Update

Stakeholder Interviews (Task 3.1)

September 10, 2018

Introduction

Water Environment Services (WES) is consolidating the sanitary and stormwater rules and standards from its various service districts into a single set of documents to support consistent practices within the public utilities that are part of WES. As an early step in the process, WES sought input on the existing rules and standards from current users. In August 2018, phone interviews were held with 12 stakeholders, including developers and engineers that work on projects across the Portland Metro area. A list of the stakeholders interviewed appears at the end of this document.

Highlights

- 1. The greatest frustration of the stakeholders is the lack of consistency with interpretation of the existing rules and standards and creation of additional “in house policy.”** Participants noted interpretation of standards is inconsistent. In addition, there are internal policies for stormwater that exceed the established standards and are not documented. Interpretations of the same rules are not the same every time, and do not always occur in a timely manner resulting in costly changes to the design. WES maintenance people and plans reviewers may interpret it differently than the design engineers. *“It’s not really the standards, it’s their unwritten “in house policies” that are the problem. They can be very rigid and don’t have documentation or justification.” “In the 11th hour, WES will decide they want something different than what their code says. They change all the time, they make up their mind about something and there is no rationale. Huge dollars – hundreds of thousands. Don’t know what they want, you have to guess.”*
- 2. Generally, sanitary rules and standards are easier to understand and apply than stormwater rules and standards.** The sanitary component tends to be a more straightforward part of design and the rules and standards are relatively consistent with other districts. Stormwater standards lack the calculation examples and specific information that make the stormwater standards of other agencies easier to implement.
- 3. The type of development that is occurring (infill, steep slopes, expansion areas) highlights the need for greater flexibility in meeting requirements, especially as it relates to stormwater requirements.** Developers are dealing with land that is harder to serve – the sites are steeper, infill/redevelopment, or sites in expansion areas that are further from public services – and the requirements do not always seem in line with the amount of development being proposed. Some of the requirements reduce the buildable area quite significantly when dealing with a single lot. *“Single lots are the main issue with the current standards. I had one with limited downstream conveyance and not many options available, virtually none. I did end up getting an exception, but it seemed like a lot of unnecessary back and forth to get to that decision.”*

4. **There were mixed responses to whether the sanitary rules and standards provide enough flexibility.** Those who were familiar with the rules and standards said that there are opportunities for design exceptions within the standards. However, in practice, participants find it very time consuming and costly to work through the design exception process. Lack of flexibility was noted in the way things were interpreted or the inability to make changes in the field without going through a design change process.
5. **The infiltration rate (or lack of) was the number one technical challenge of the stormwater rules and standards.** It was noted by several that infiltration rates in the County are poor making it hard to apply the infiltration standard. Waivers should be allowed or the standard modified/eliminated. Several mentioned that they applied for waivers but were denied and required to put in a system as if it was trying to infiltrate even though analysis shows there is zero infiltration capacity.
6. **Many mentioned the BMP sizing tool or a desire to have some kind of sizing calculator methodology.** They noted that having options is nice – especially with small facilities scattered along a site. They liked the ability to use a calculator like those that are used in other jurisdictions. However, use of WES’ BMP tool is not referenced in the standards and developers struggle to determine when it will be allowed since it only allowed under certain circumstances.
7. **Participants provided many specific examples of where the sanitary and stormwater rules and standards created challenges.** A list of specific rules and standards identified as being challenging to implement and recommendations for change are attached.
8. **Overall, increased consistency with standards was mentioned as a positive of the consolidation.** Having a single set of standards across the service district would make it easier for implementation. However, participants did not want the rules and standards to be the worst-case scenario applied to all situations.
9. **When asked for best practices, participants noted Clean Water Services the most often.** CWS has recently gone through an update and they use a regional approach to water quality and detention. It was also noted that CWS applies the DEQ standards, rather than a higher/different standard.
10. **The rules and standards have significant impact on the cost of developing the site – and housing affordability.** Participants asked that WES be cognizant of the cost of meeting the requirements. Allowing more flexibility and having less stringent requirements allows developers to meet the standards while still controlling costs.

Participants

- James Adkins, HBA
- Ben Austin, HHPR
- Ben Goldson, Theta
- Cedomir Jesic, Cardno
- Greg DiLoreto, WES Advisory Committee
- Joe Schiewe, Holt Group
- John Howarth, 3J Consulting
- Kelly Ritz & Scott Newcomb, Stone Bridge Homes
- Kirk Olsen, Trammell Crow
- Monty Hurley, AKS
- Roy Moore, joined by Lance and Tyler
- Thomas Sisul, Sisul Engineering

Recommendations for Updates to the Stormwater Rules and Standards

The following list are specific recommendations for the rules and standards update. Examples of challenges related to the timely interpretation of the rules and standards are not included.

General

1. Rules and standards should be self-explanatory and prescriptive – so anyone can apply them. The standards should also allow for flexibility. Every site has its own unique characteristics and if you narrow things down too much, they might not work.
2. Lack of Stormwater Construction standards compared to Sanitary Sewer construction standards.
3. Stormwater rules should be consistent with DEQ rules, not above and beyond.

Sanitary System

1. Allow Public Sanitary Sewer pump stations and have standards for them.
2. Pump stations – need to allow for permanent and temporary.
3. Allow sanitary sewer reimbursement districts.
4. Lamping sanitary sewer mains requirement is outdated. No other jurisdictions in the region require it.
5. The required provision to provide sewer to other homes (i.e., whoever comes in and develops first has to serve everyone – future subdivided lots, existing homes on septic) is expensive and does not always create the most logical connections. For example, a project had some existing homes on one side of the site and WES wanted sewer provided to the homes which meant ground through the backyards of some of the homes they were building. The existing homes were on septic and could have gotten sewer off the front of their street on their own, but the new development was required to provide sewer to these existing homes.
6. WES Sanitary Sewer Standards for pipe slope should match DEQ (a minimum for 8" Pipe to equal a slope of $S=0.0040$).

Stormwater Conveyance System

1. Private systems, which are not maintained by WES, should be allowed to be underground, mechanical, have steeper side slopes, not be subject to WES access requirements.
2. Inside drops should be allowed, in addition to outside drops. They are allowed by other agencies.
3. Requiring Stormwater bypass lines in general instead of allowing flow through stormwater facilities makes stormwater systems much more complicated, costly, and creating additional long-term maintenance.
4. Construction tolerances seem unreasonable (e.g. ½" bellies in storm pipe vs. "straight line and grade")
5. Minimum slope of 1% is higher than other jurisdictions. Others use less – like 0.5%.
6. The connection types allowed can be problematic, as can pipe tolerances, belly tolerances, pipe materials, inserted Ts (most jurisdictions allow them for taps).
7. Different kinds of backfill should be allowed. Reject fill should be allowed instead of ¾" minus, which is getting really expensive.

8. At every low point in a street, WES wants a separate overflow tract going between lots in case the catch basins plug up and overflow onto the lots. If an overflow is required, then it should be allowed to be in an easement, not a tract.

Infiltration

1. In many areas, soils don't infiltrate well. Before, had to create sufficient volume. Now, they must consider the soils. It's a change in interpretation, but not in the standards
2. Infiltration is challenging to meet. Amount of infiltration required is better if it is calculated over a 24-hour period than a maximum.
3. Using an infiltration requirement that doesn't work in all areas. Other jurisdictions have a requirement, but it matches the soils you are working in.
4. To modify WES stormwater standards when infiltration is not practical, WES requires the use of the BMP Sizing Tool even though it is not in their standards.
5. Infiltration waivers. On sites with steep slopes or poor infiltration rates, the standards say the infiltration requirements can be waived, but WES requires retention of the 24-hour ½" rainfall event in place of infiltration, which is not specified in their standards.
6. One should infiltration first half inch – if you have soils that don't infiltrate, could have a Geotech come up with justification that it is not feasible. Just have to be creative in how to achieve that half inch.
7. The threshold for the infiltration requirement for small projects or site-specific projects (one building on a campus for example) – may be an issue for requiring more than needed.

Stormwater Detention

1. Regulations require more detention than likely needed. Most development is redevelopment which may or may not increase impervious surface. Most agencies have shifted to pattern of storms.
2. Designing site and stormwater system assuming every catch basin are clogged (overflow path issue) is costly – is it necessary?
3. There are no adopted construction details for ponds, swales, and planters that are designed per the WES standards.
4. Seems like on stormwater side, development of more suggested or recommended standard details for planter boxes, raingardens would be helpful.

BMP Sizing Tool

1. Would be helpful to allow pass through flow in stormwater facilities. Allow it pass through as pass through volumes.
2. Constructing detention ponds in series is not supported in the tool (but is allowed most other places), ends up requiring a lot of parallel storm pipes that cost a lot of money and are going to be a long-term maintenance hassle.
3. Stormwater pond landscaping requires expensive, lush vegetation. There are 1.2 potted plants per SF. In many places you can use plug plants, these standards require potted plants.
4. WES has additional (redundant) pond outlet structures – unique to WES.

5. County had their BMP tool, but they are not using it now. Leaves designers falling back on more traditional tools. To do that level of analysis on facilities across a site is a fairly taxing process.
6. Fine with the idea of the model, but don't agree with some of the calculations in the existing model. Acts like post development is automatically impervious (e.g., if you went from one grassy lot and subdivided it into four grassy lots, it would show you have a bunch of run off to detain, even though the condition is the same)

Downstream Conveyance

1. Downstream conveyance doesn't seem reasonable for just a single lot development. You could also say by observation that there is no problem and there doesn't seem to be any data available from the District on whether there is capacity or not.
2. Upslope basin collection facilities require cut off trenches at the backs of the lots to catch run off. If we are downstream from an existing neighborhood, they have us put in the cut off trench that takes up 10 feet of the backyard. It is to handle the stormwater that is coming from the existing neighborhood, not from the new development. It is a cost, but it creates a backyard that nobody can use. It's an exposed gravel trench with cleanouts. Nobody else in the world asks for this.
3. Upslope/Uphill/Upstream basin french drains/ditches/collection facilities are not always necessary or practical on most sites.

Water Quality

1. WES has different standards for water quality and/or pretreatment than DEQ. For every project that we need a NOAA/DEQ 401c, there are conflicts and issues (i.e. Grand View Meadows). It's difficult to design for two different standards.
2. Water quality facility itself – WES doesn't use DEQ BMPs, they instead go outside DEQ standards.
3. WES stormwater facility maintenance needs to align more closely with DEQ 401 Certification requirements.

Fees

1. There are multiple examples of "double" fees.
 - a. Plan review fees - WES collects an additional \$400 Plan review fee for every plan change after already collecting a fee for review.
 - b. WES 4% fees for stormwater review overlap with City of Happy Valley so developers are paying 4% WES + ±3% City. T
 - c. WES 4% fees for stormwater review overlap with County DTD fees, so developers are paying 4% WES + ±8.83% for County DTD.
 - d. WES bonds overlap with County DTD and cause "double" the bonding.
2. WES collection sewer charge is arbitrary.
3. SDCs for industrial projects are high.

4. Stormwater facility maintenance costs. Maintenance requirements that WES imposes are excessive – should instead be compliant with DEQ requirements.
5. A waiver or Fee-in-lieu should be allowed for stormwater quality/quantity/ infiltration when it is not practical to do it on a site or portion of a site.

Stormwater System plan submittals

1. WES drafting requirements having lateral information on lots instead of in tables – creates a lot of extra work.
2. WES individual lot as-builts on 8 ½" x 11" letter size paper creates a lot of additional work.
3. Conflicting details – one standard detail doesn't match up with other details. Lateral detail vs. inserted T detail – different sizes in different sections.
4. WES requiring us to design entire sites and street systems without low points is unreasonable.
5. The standards regarding the drawing scale are not always a good fit for the scale of the project.
6. Labeling of manholes, requires you to use the GIS designations, which are a long series of numbers. Would be better to allow naming within the project (e.g., Manhole A) because it is so difficult during construction to use the GIS names.

Inspection

1. Continuous inspection should no longer be needed with current technology.
2. The straight line and grade inspection rules are antiquated.