

## Update on Water Quality Key Topics: 1,000 SF treatment threshold and redevelopment standard

Outreach for the Phase 1 update to the Design and Construction Standards, begun in September 2016, has included one meeting each with co-implementers and stakeholders to discuss three key topics. Significant stakeholder feedback on the treatment threshold and three redevelopment Table 4-1 alternatives can be summarized as follows:

- Preference for a simple approach with clear and objective standards, with an option for a review process if a variance from the standard is desired
- Desire for credits for LIDA and net reductions in impervious area
- Continue to allow trading of treatment areas either onsite or nearby
- Consider exempting certain types of development, such as ADA upgrades
- A specific treatment requirement for single family properties

Based on the feedback received at the public meetings, Clean Water Services applied the Table 4-1 alternatives to theoretical and actual development projects. Findings from this analysis can be summarized as follows:

- “modified table 4-1” continues to result in disproportional treatment on large sites with small disturbance areas, which in the past has deterred projects.
- “scaled proportional treatment” and “simplified proportional treatment” ratios often resulted in equivalent treatment requirements.

Incorporating the 1,000 square foot threshold and modifying the Table 4-1 redevelopment standards will require changes to the impervious area used in design, per Chapter 4 Section 4.05.5 of the Design and Construction Standards. Proposed changes to the Standards, shown in Attachment 1, were developed using the input from the first key topic meetings and meet program objectives while also providing a simple approach with clear and objective standards.

### Next steps

#### Clean Water Services seeks your input on:

- **Proposed Changes to the language in Section 4.05.5**
- **Your preference for either scaled or simplified proportional treatment ratios**

Comments can be submitted by Monday, November 14th to [dncudpate@cleanwaterservices.org](mailto:dncudpate@cleanwaterservices.org).

CWS and co-implementers will review comments during the latter half of November. CWS will continue to explore options for credits, incentives and exemptions for certain activities. Clean Water Services continues to make progress on the LIDA Prioritization key topic, which includes drafting clear and objective standards that describe when fee-in-lieu can be used. Stay tuned for a separate status update on LIDA prioritization.

## Attachment 1: Conceptual draft revisions to Design and Construction Standards

Incorporating the 1,000 square foot threshold and modifying the redevelopment standards will require changes to the impervious area used in design, per Chapter 4 Section 4.05.5 of the Design and Construction Standards.

Annotated draft changes are shown as “tracked changes” below. Two versions of Table 4-1 are under consideration based on stakeholder input: Simplified Proportional Treatment and Scaled Proportional Treatment. With either approach, Table 4-1 will reference requirements for new and modified impervious areas and will no longer apply only to ‘redevelopment.’ When modifying existing impervious areas (previously referred to as ‘redevelopment’), a ratio is used regardless of site size.

Proposed Design Standards	Notes
<p>4.05.5 Impervious Area Used In Design</p> <p>a. <u>For single family and duplex development on an existing lot of record the stormwater quality facilities shall be sized based on 2640-square feet of impervious surface area per dwelling unit.</u></p> <p>b. For single family and duplex residential <u>partitions and</u> subdivisions, stormwater quality facilities shall be sized for all <u>new and existing</u> impervious area created by the <u>development subdivision and for all existing impervious area proposed to remain on site</u>, including all existing and proposed residences on individual lots at the rate of 2640-square feet of impervious surface area per dwelling unit. For the purpose of design calculations, the actual impervious surface can be utilized as an alternative to 2640 square feet per dwelling unit when the average lot size on a single-family residential project is less than 2000 sq.ft.</p> <p>c. <del>Except as noted in subsection (d) below, for</del> <u>For</u> all developments other than single family and duplex, including row houses and condominiums, the sizing of stormwater quality facilities shall be based on the impervious area created <u>or modified per Table 4-1 by the development and for all existing impervious area proposed to remain on site, including structures, all roads and other impervious areas, shall be included in the sizing of the facility.</u> Impervious areas shall be determined based upon building permits, construction plans, or other appropriate methods of measurement deemed reliable by District and/or City.</p> <p><del>d.</del> <u>e.</u>—The impervious area used in design shall be modified in accordance with subsection 4.07 when approved low impact development approaches are utilized.</p> <p><del>d.</del> <u>e.</u>—For redevelopment sites, the impervious area used to design water quality facilities shall be based on Table 4-1.</p>	<p>This subsection is added to apply the 1,000 SF threshold to single family dwellings.</p> <p>This subsection is revised to apply the 1,000 SF threshold to ‘partitions.’</p> <p>This subsection replaces ‘redevelopment’ with ‘modified’ in order to clarify how treatment is provided for existing and new impervious areas. Table 4-1 is expanded to include new development.</p> <p>4.07 may be modified to apply additional credits and incentives.</p> <p>The reference to Table 4-1 is moved to subsection c.</p>

TABLE 4-1  
TREATMENT REQUIREMENTS FOR NEW AND MODIFIED IMPERVIOUS SURFACES  
APPLIED WHEN NEW + MODIFIED IMPERVIOUS AREA ≥ 1,000 SQUARE FEET

Simplified Proportional Treatment Alternative

New or modified Impervious Area*	Treatment Ratio ** Treatment to Disturbance
All new impervious area created	1:1
Modified impervious area	3:1

\* Replacement of impervious area with pervious area, including LIDA, Porous Pavement or Green Roof, where there is a net reduction in impervious area may be applied as a credit toward remaining impervious area treatment requirements on-site (credit system to be developed).

\*\*Ratio applies up to treatment of all impervious on-site.

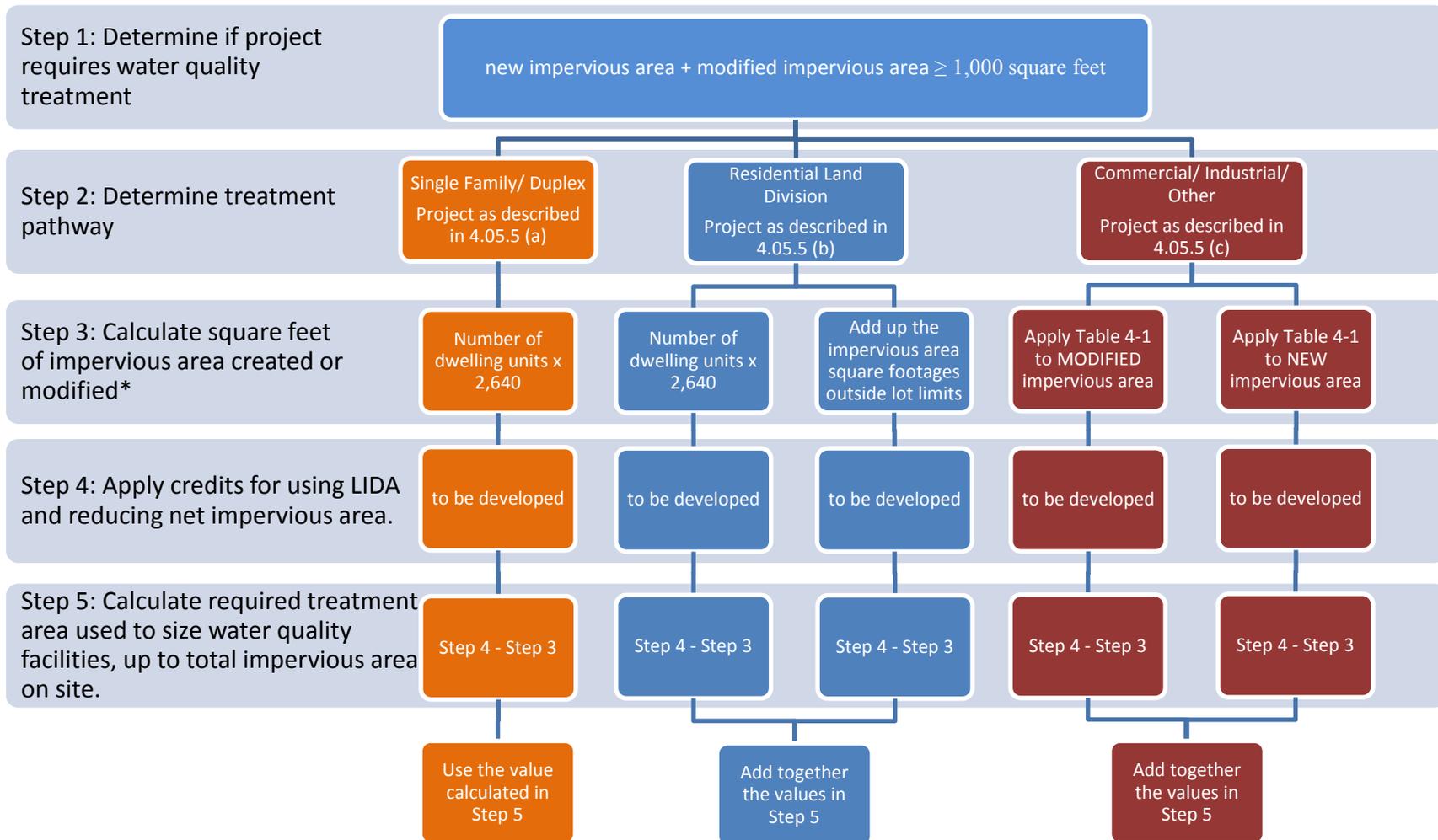
Scaled Proportional Treatment Alternative

New or modified Impervious Area*	Treatment Ratio ** Treatment to Disturbance
All new impervious area created	1:1
Modified impervious area < 2,640 sq. ft.	1:1
Modified: ≥ 2,640 sq. ft. and < 10,890 sq. ft. (1/4 ac.)	2:1
Modified: ≥ 10,890 sq. ft. (1/4 ac.) and < 21,780 sq. ft. (1/2 ac.)	3:1
Modified: ≥ 21,780 sq. ft. (1/2 ac.) and < 87,120 sq. ft. (2 ac.)	4:1
Modified: ≥ 87,120 sq. ft. (2 ac.)	5:1

\* Replacement of impervious area with pervious area, including LIDA, Porous Pavement or Green Roof, where there is a net reduction in impervious area may be applied as a credit toward remaining impervious area treatment requirements on-site (credit system to be developed).

\*\*Ratio applies up to treatment of all impervious on-site.

A draft schematic has been developed to clarify how the draft standards will apply to a development, including how to: apply Table 4-1 for the development types described in subsection 4.05.5 (a-c), calculate impervious areas and apply credits. For example, the schematic illustrates how to calculate treatment area for a commercial development that creates new impervious surfaces and modifies existing impervious surfaces.



\* Green roofs and pervious pavement are considered pervious for the purpose of this calculation.