

Draft Stormwater Control Transfer Program

Review Draft Pub. No 15-10-017 (May 2015)

City of Redmond Natural Resources Division, Public Works Department Comments

General Comment

The City of Redmond appreciates the opportunity to review and comments on this document. Redmond has been working closely with Washington Department of Ecology on developing a method to apply stormwater requirements for development/redevelopment in a way that is more effective from an in-stream habitat recovery standpoint, compared to the default application of stormwater requirements. This is important because of the massive amount of developed land within western Washington municipal stormwater permitted areas that have antiquated or no stormwater controls that reduce impacts from land conversions (forest to impervious polluted surfaces). Allowing this or other innovated approaches that target more immediate and effective recovery of aquatic habitat is critical to stopping the decline in habitat function and viability most of western Washington is experiencing.

What's missing?

This concept is complex and warrants a more detailed primer. We suggest adding a definitions section that discusses what a watershed is, what a priority watershed is, what flow control is, what predeveloped, existing condition, proposed condition is, what the LID performance standard is, and so on. This is important so that a reference area is within the document that people can use to refresh themselves on technical concepts/terms while reviewing the document.

This document references section 2.4.1 and 2.4.2 of the 2012 Stormwater Management Manual for Western Washington (SWMMWW) for in-basin transfer options. However, currently the 2012 SWMMWW is not well known or adopted in the majority of permitted cities and counties. The language in sections 2.4.1 and 2.4.2 that pertains to in-basin transfers is new and not well known. Redmond recommends including the language for development and redevelopment in-basin transfers to this document so that all options are discussed together. During review it was confusing that in-basin discussions were omitted.

Specific Comments

Page 2 –General Stormwater Control Transfer Program Principles

Principle #4 – this is where it's important to identify the in-basin transfer language, or at least point it out that it exists. Redmond has concern that once a priority watershed is retrofitted that a redevelopment will occur within the retrofitted area and in-basin transfers are not available. This would essentially allow a development to either do nothing or build redundant facilities on-site. We would rather retrofit a different portion of the priority watershed using an in-basin transfer method.

Add a 7th principle about the fee for development/redevelopment projects to buy into a transfer program, similar to section 2.4.2 of the 2012 SWMMWW: "At a minimum, the fee should be the

equivalent of an engineering estimate of the cost of meeting all applicable stormwater requirements for the project.”

This safeguards the public and environmental groups from seeing this program used by local governments to place the cost of stormwater controls solely on the public.

Page 2 – Key Stormwater Control Transfer Program Elements

Item #1 – Second sentence. Consider revising to clarify that only the pre-project to pre-development conversion may be transferred (e.g., “For new surfaces, only incremental flow control and LID improvements that improve site conditions beyond the pre-project condition may be transferred.” Alternatively, or additionally, define “improvement” transfers so that it is clear that these are additional benefits (beyond pre-project conditions) that are required under the permit, but may be transferred to a priority watershed.

Page 3 – Key Stormwater Control Transfer Program Elements (cont.)

Item #1c – MR #5 On-site stormwater management – the allowable transfer in addition to what is proposed to be required on-site will make the transfer option more expensive and will detour project proponents from exploring the option. LID’s hydrologic benefit is only realized when widely used throughout a watershed. Based on Juanita Creek and WRIA 9, we are becoming very aware that restoring a stream in a developed watershed will require LID performance standard + flow control. So, to leave LID on-site is a mistake. Typically within the UGA, we are redeveloping land to make it more densely used. The “off ramps” for LID include consideration of urban design/planning and if LID doesn’t fit in, you can disregard. Allowing for a reasonable transfer of LID to priority watersheds will have more environmental benefit than pushing the issue of requiring some LID on-site in addition to paying a fee to have LID installed in priority watersheds.

Item #1c – Why does the document reference the target range of flows as both 1% to 10% exceedance and 8% 2-year to 50% 2-year? Shouldn’t the requirement, whether in reference to the flows matched on-site or the flows matched for transfers, be the same (and more correctly stated as 1% to 10% exceedance)? We recognize that for a forest pre-developed condition, these target ranges are essentially the same, but if your pre-developed condition is pasture, this no longer holds true.

Item #2 - “permittees must verify the long term operation and maintenance of those offsite stormwater runoff treatment and flow control facilities.” I would recommend that the permittees that chose a stormwater control transfer program must own and operate the facilities. If you only want to require verifying O&M, I would omit from this document. Permittees are already required to verify O&M on new facilities.

Item #5 - “Permittee must track runoff treatment, flow control, and/or LID improvement transfers for each project as explained in a related guidance.” – What guidance is being suggested here? Is that guidance available? I would suggest that tracking must be done by land cover area (acres of forest, pasture, landscape, impervious).

Add 8th bullet: Facilities must be designed for future build out of the area draining to them so they do not become obsolete as redevelopment occurs in the future.

Page 4 – Minimum Requirement 7 Flow Control

The discussion of converted surfaces is not clear. What if you convert an impervious surface to a landscaped area? I suggest revising # 5 so it reads like #3 and #4.

As previously mentioned, in basin transfers need to be discussed. If we retrofit an area within a priority watershed, sell all the area to through transfers, and then a redevelopment action occurs in the retrofitted area, it needs to be clear that we need to or must transfer within basin. If not, redevelopment/development would have stormwater controls funded by the public.

We recommend using consistent language between minimum requirement guidelines where applicable to minimize confusion (see MR #7, Item #2 and MR #5, Item #2, for example).

Add 6th item – Consider adding guideline for minimum requirement #7 that “Where a previously developed site with inadequate flow controls (e.g., detention facility that does not meet current flow control requirements) is redeveloped, the flow control requirement for new and replaced surfaces subject to MR #7 should be satisfied onsite”. This is, in some ways addressed by requiring projects to match pre-project hydrologic conditions, however, it will be difficult to transfer and credit the delta from existing flow control pre-project to pre-developed conditions. From a modeling standpoint, this would involve modeling the existing flow control facility in the on-site “pre-developed” (pre-project) condition, then modeling your proposed condition as the “developed” scenario to determine what additional flow control is needed (if any) to match pre-project conditions. While this portion of the process is doable, it becomes increasingly difficult (if not impossible) to credit this delta in an already constructed flow control facility in a priority watershed.

Alternatively, current inspection and O&M requirements in the municipal stormwater permits for privately owned facilities suggest that there is minimal benefit realized from these facilities (i.e. permittees are not required to inspect or maintain them, which one can conclude they can disappear and no one would know). Therefore, should the same conclusion of the benefits of these facilities be applied to stormwater control transfers and allow transfer of stormwater requirements to priority watersheds?

Table – Suggest switching the second and third column (provide on-site requirements first)

Table – Consider revising the transfer option requirements to better align with the language provided for MR #6. The current language is confusing. E.g., “Transfer remaining flow control requirement to constructed facility within high priority watershed. Facility must manage an equivalent amount of in-kind (like) surface where “in-kind surface” is defined as a surface with equal or higher runoff potential than the pre-project land cover.

Page 5 – Minimum Requirement 6 (Runoff Treatment)

Only basic treatment transfers should be allowed. The reasons for this are:

1. Allowing just basic treatment transfers is complex, adding another treatment type to be transferred will double the complexity and will make the program very hard to manage.

2. Enhanced treatment is best applied as close to the surface that requires enhanced treatment. Enhanced treatment on a regional scale is not feasible and is not effective at removing metals once clean runoff is mixed with runoff that needs basic treatment. We don't have the technology available to treat runoff to enhanced standards on a retrofit basis unless it's surface specific retrofits.

Consider providing guidance on the transfer of phosphorous treatment requirements (similar to oil control?)

Item #3 – Consider clarifying treatment requirements for sites triggering basic treatment. Could these basic treatment requirements be transferred to an enhanced treatment facility in a priority watershed?

Item #4 - Note that this is different than what Redmond is currently proposing. We are allowing transfer of treatment requirements for new-pollution generating surfaces when the total new PGIS is less than 5,000 square feet. This scenario arises only when all minimum requirements are triggered for new and replaced impervious surfaces due to a large amount of replaced impervious surface. This is intended to prevent the construction of a small treatment facility on-site to manage an otherwise below the treatment threshold pollution-generating surface, in favor of transferring the treatment requirements for the small fraction of new pollution generating surface with the treatment requirements for replaced surfaces.

Item #5 – isn't this just an example of the item #4 guidance? Why differentiate?

Table – Suggest switching the second and third column (provide on-site requirements first)

Table – Replaced PGS - Consider adding the following to the end of the transfer option requirements: "...for equivalent area with equal or higher pollution potential"

Page 6 – Minimum Requirement 6 (Runoff Treatment) (cont.)

Table – New PGS – Why differentiate between new PGS and non-PGS to PGS conversion? Isn't the conversion, by definition, "new PGS"?

Table – Site Triggers Oil Control – The requirement in the table is inconsistent with Item #7 on page 5. Does only oil control need to be provided on site? Or if oil control is triggered, do all treatment requirements (basic and enhanced) need to be met on site?

Page 6 – Specific Guidelines re: Minimum Requirement 5 On-site stormwater management

Either have the header repeat from page 5 on top the table on page 6 or have the entire table on one page.

We recommend using consistent language between minimum requirement guidelines where applicable to minimize confusion (see MR #7, Item #2 and MR #5, Item #2, for example. Also, Item #4 – consider providing an example (similar to MR#7, Item #3)).

Item #5 - Same as previous comment, #5 should be reconsidered and potentially omitted. We will not be successful in getting project proponents to do on-site management to match flow durations and buy in

to a stormwater control transfer to match forested conditions for the LID performance standard. Project proponents will opt to apply the list as applicable to the site.

#6 – does WWHM 2012 allow for modeling 1% to 10% frequency of exceedance flow rates predicted for the pre-project land cover? Again, requiring this level of analysis and application of matching flow durations on-site to existing conditions PLUS matching LID performance standard to forested conditions offsite will make the stormwater control transfer option a financial disincentive.

Page 7 – Specific Guidelines re: Minimum Requirement 5 On-site stormwater management (cont.)

Table – see comments on MR #7 transfer option language.

Table – Why not split up the requirements for “new or replaced impervious surfaces” and “converted vegetated surfaces”? Because MR #5 for converted vegetated surfaces can be satisfied per the list approach with BMP T5.13 alone, and BMP T5.13 is not transferrable, all requirements for converted vegetated surfaces must be met onsite.

Page 9 – Establishing a Watershed Characterization for Stormwater Control Transfer Programs in Washington State

Some jurisdictions in Thurston County would like to make transfers out of their jurisdiction and we recommend this as an option that should not be disallowed. Correcting issues outside of one’s jurisdiction might do a lot for water quality inside the jurisdiction.

Language needs to be added that the clear goal/focus of creating a stormwater control transfer program be adopted within the jurisdictions comprehensive plan or another plan that is officially approved by the governing body (i.e. city council). This will make sure that the commitment is understood and supported throughout the organization.

This section needs to incorporate Building Cities in the Rain guidance.

Page 10 – Prioritization Principle to Consider

Item 3: “expected to accelerate environmental improvement” should be “expected to accelerate recovery of aquatic habitat.” Environmental improvement seems to be loose and easy to interpret different ways.

Item 5: should include the Puget Sound Partnership in list of organizations to seek input.

Should the guidance also recommend public and local stakeholder involvement in the prioritization process?

Page 11 – Considerations for Developing an Effectiveness Monitoring Plan for Stormwater Control Transfer Programs

Is a monitoring program required or not? This section is not clear if monitoring is required or not. PCHB critique of Clark County called for monitoring to occur. Redmond included it but perhaps every agency is

not required to monitor? Redmond's finding should be representative of other jurisdictions and is funded by the RSMP.

If monitoring is required, it should be in-stream monitoring. The guidance is not clear on this point. Proponent could be read as effectiveness monitoring is facility performance.

The guidance currently indicates a "monitoring plan" is required to meet Washington State Pollution Control Hearing Board requirements. In actuality, would a formal Quality Assurance Project Plan be required to describe the monitoring procedures to be employed?

The stated goal of the monitoring is to document the effectiveness of a Stormwater Control Transfer Program in improving water quality and/or quantify conditions in a targeted, priority watershed. More clarification should be provided with regard to this goal. For example, does these improvements need to be statistically significant? If so, what level of confidence would be required?

The guidance indicated stream water quality and/or hydrologic changes should be tracked to quantify improvements in stream health within the priority watersheds that result from a Stormwater Control Transfer Program. Could improvements in stream health be documented on the basis of B-IBI scores as a surrogate for these more costly monitoring endpoints?

Infrequent interval monitoring is not defined. Define what the minimum acceptable is if monitoring is required. Continuous hydrologic monitoring is not infrequent interval monitoring.

Case #3, requiring outfall monitoring to measure load reductions from installing runoff treatment facilities is outfall monitoring. Do we want in-stream or stormwater monitoring? If we want outfall monitoring the ability for jurisdictions to capture storms is limited and if required would turn smaller jurisdictions away from the stormwater control transfer program.

The literature review performed for the Redmond Paired Watershed study has indicated the detection of improving water quality and/or quantity conditions can be difficult without a significant (and costly) monitoring effort. What repercussions, if any, would a jurisdictions face if the monitoring cannot document improvements?

Page 13 – Determining a Project's Stormwater Improvement Transfer Obligation

Is one-tenth of an acre (~4,400 square feet) too coarse a resolution for this tracking? It seems like it may be more appropriate to set the resolution at least as fine as the thresholds that trigger the requirements themselves (i.e., 2,000 square feet?).

Page 14 – Determining a Project's Stormwater Improvement Transfer Obligation

Runoff Treatment, Minimum Requirement #6 – Bullet #2 – How are you proposing that non-PGIS that mixes with PGIS be tracked? Would all sites with even a small amount of PGIS be required to transfer requirements for their non-PGIS because you are assuming that it will mix with PGIS either on-site or offsite? This seems overly onerous and not consistent with the current treatment requirements in the Manual. Would this requirement also apply to non-pollution generating surfaces that mix with PGPS?

Page 15 - Tracking/Storing Stormwater Obligation Transfers

Section B: third bullet should refer to fully built out conditions. This section is focused on regional facilities. We should also consider distributed retrofit systems.

Page 18 - Calculating Capacity

Why are flow splitters not mentioned? We can model flow splitters in WWHM and it seems that some retrofits, especially expanding existing ponds, will not control the full flow that drains to them. We can assume smaller areas are fully controlled and use a splitter to divert additional flows around the facility. It seems this is not an option in the calculation and it should be. Also noted on page 20 that flow splitters are not allowed. Why?