

Performance Standards (Part C)

The site is located in Conservation Flow Control Area and Basic Water Quality Treatment Area according to the King County Flow Control Application Map and Water Quality Application Map. Impervious area coverage of the proposed Lot 1 is 47.64% without counting for pervious pavement credits. Since potential capacity problem has been identified within the 0.25 mile downstream of the site, level 3 flow control is required. Since the site is a multifamily land use site, enhanced basic water quality treatment is required. Full infiltration is used as a flow control BMP for the onsite improvement, the combined onsite and offsite runoff at the point of compliance meets the level 3 flow control standards (see calculations in Section 4 Part B and Part D), also the infiltration exception (Exception 2 of 1.2.8.1.A) is applied and the requirement of Enhanced Basic Water quality treatment is reduced to Basic water quality treatment.

Per SWDM section 1.2.3.3 and 5.2, Flow Control BMPs are not required for the onsite development but have been used to reduce the size of the infiltration facility. Since the proposed lot 1 is larger than 22,000 square feet, the project falls under the large lot high impervious flow control BMP category. The feasibility and applicability of full dispersion is studied first, the study found full dispersion is not suitable for this site to fully disperse the new impervious areas and new non-native pervious areas. The feasibility of full infiltration is considered next. Since onsite soil is outwash soil in the west portion of the site, full infiltration is suitable for this site and is used as the Flow Control BMP for the onsite improvement. Also, porous pavement is used in parking and driveway areas to reduce target impervious areas.

The following applicable flow control BMPs per KCSWDM 1.2.3.3 and 5.2 are used for the new onsite improvement:

- 1) An infiltration system (70.5'L x 16.25' W with 24 StormTech DC780 chambers in 3 rows) designed to provide Full infiltration flow control.
- 2) Porous asphalt pavement per KCSWDM C.2.6.3.

A StormFilter vault with pre-settling bay and four 11.25 gpm 27" high ZPG cartridges will be installed upstream of the infiltration system to provide Basic water quality treatment and pre-settling treatment for the infiltration system.

See Section 2 of this report regarding special requirements, the only special requirement applicable to this site is special requirement 1.3.4 for source control. Two roofed dumpster areas are provided for this purpose. Since the site is not a high use site, oil control is not required. The baffle wall in the StormFilter vault is used to provide spill control.

As discussed in Section 1, Exemption 2 for Conservation Flow Control Areas applies for the offsite frontage improvement. Flow control is not required for the offsite frontage improvement. Also, the new PGIS and PGPS for the frontage improvement and a narrow landscape strip along the east property line are counted as untreated discharges for water quality treatment per SWDM 1.2.8.2.D. and water quality treatment is not required for these areas.