

01-13-22

RE: STP-009877-2021

City of Lynnwood
PO Box 5008
Lynnwood, WA 98046

Responses to 12-15-21 First Review Letter:

Development Engineering

1a. The thresholds for requiring the achievement of the standard flow control in Minimum Requirement #7 is as follows:

The following circumstances require achievement of the standard flow control requirement for western Washington:

- Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area, or
- Projects that convert $\frac{3}{4}$ acres or more of vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site, or
- Projects that through a combination of effective hard surfaces and converted vegetation areas cause a 0.10 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other approved model and one-hour time steps (or a 0.15 cfs increase using 15-minute time steps).¹

Bullet 1

- Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area, or

The project as designed infiltrates 100% of the roof runoff from the proposed roof areas. The roof areas are therefore not considered Effective Impervious Surface.

IMPERVIOUS SURFACE DISPOSITION	sf	ac	sf	
NEW ROW HARD SURFACE	1,010	0.023	1,010	
NEW ONSITE DRIVEWAYS	1,529	0.035	-	100% INFILTRATION
NEW ROOF	6,036	0.139	-	100% INFILTRATION
			1,010	EFFECTIVE IMPERVIOUS SURFACE

The definition of Effective Impervious Surface is as follows:

Effective Impervious Surface

Those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system. **Impervious surfaces are considered ineffective if:** 1) the runoff is dispersed through at least one hundred feet of native vegetation in accordance with [BMP T5.30: Full Dispersion \(p.939\)](#); 2) residential roof runoff is infiltrated in accordance with [BMP T5.10A: Downspout Full Infiltration \(p.905\)](#); **or 3) approved continuous runoff modeling methods indicate that the entire runoff file is infiltrated.**

Bullet 2

- **Projects that convert ¾ acres or more of vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site, or**

The project as proposed does not exceed this threshold.

Bullet 3

- **Projects that through a combination of effective hard surfaces and converted vegetation areas cause a 0.10 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using the Western Washington Hydrology Model or other approved model and one-hour time steps (or a 0.15 cfs increase using 15-minute time steps).¹**

¹The 0.10 cfs (one-hour time steps) or 0.15 cfs (15-minute time steps) increase should be a comparison of the postproject runoff to the existing condition runoff. For the purpose of applying this threshold, the existing condition is either the pre-project land cover, or the land cover that existed at the site as of a date when the local jurisdiction first adopted flow control requirements into code or rules.

The project as proposed does not exceed this threshold when comparing pre-project land cover to developed land cover.

Flow Frequency	Return Period	Periods for Predeveloped.	POC #1
	<u>Return Period</u>	<u>Flow(cfs)</u>	
	100 year	0.302634	

Flow Frequency	Return Period	Periods for Mitigated.	POC #1
	<u>Return Period</u>	<u>Flow(cfs)</u>	
	100 year	0.416506	

1b. The project is subject to Basic Water Quality however is exempt from constructing stormwater treatment facilities. Basic Water Quality is provided by Cation exchange in the underlying soils.

Stormwater treatment facilities are required when:

The following require construction of stormwater treatment facilities:

- **Projects in which the total of, pollution-generating hard surface (PGHS) is 5,000 square feet or more in a threshold discharge area of the project, or**
- **Projects in which the total of pollution-generating pervious surfaces (PGPS) – not including permeable pavements – is three-quarters (3/4) of an acre or more in a threshold discharge area, and from which there will be a surface discharge in a natural or man-made conveyance system from the site.**

The definitions of PGHS and PGPS are as follows:

Pollution-generating hard surface (PGHS)

Those hard surfaces considered to be a significant source of pollutants in stormwater runoff. See the listing of surfaces under pollution-generating impervious surface.

Pollution-generating impervious surface (PGIS)

Those impervious surfaces considered to be a significant source of pollutants in stormwater runoff. Such surfaces include those which are subject to: vehicular use; industrial activities (as further defined in this glossary); or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall; metal roofs unless they are coated with an inert, non-leachable material (e.g., baked-on enamel coating); or roofs that are subject to venting significant amounts of dusts, mists, or fumes from manufacturing, commercial, or other indoor activities.

Pollution-generating pervious surface (PGPS)

Any non-impervious surface subject to vehicular use, industrial activities (as further defined in this glossary); or storage of erodible or leachable materials, wastes or chemicals, and that receive direct rainfall or run-on or blow-in of rainfall, use of pesticides and fertilizers, or loss of soil. Typical PGPS include permeable pavement subject to vehicular use, lawns and landscaped areas including: golf courses, parks, cemeteries, and sports fields (natural and artificial turf).

The proposed Permeable Pavement is classified as PGPS and does not exceed $\frac{3}{4}$ of an acre. The proposed pavement in the right of way is classified as PGHS/PGIS and does not exceed 5,000 sf.

Respectfully Submitted

(digitally signed)

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