

3.6 STORMWATER

This section provides a general description of stormwater impacts resulting from *The Point at Northshore*. The stormwater system will be required to comply with the City of Tacoma 2003 *Surface Water Management Manual (2003 Tacoma SWMM)* and other *Tacoma Municipal Code* provisions. Final design of the specific stormwater elements will be completed at the time of development permit submittal.

3.6.1 Affected Environment

A *Conceptual Storm Drainage Report* was prepared by Apex Engineering and submitted during the City's review of *The Point at Northshore*. The Apex Engineering report has been updated twice, most recently in November 2008. The report describes the drainage as being contributory to two separate drainage basins, the Joe's Creek Watershed to the northeast of the project and the Northeast Tacoma Watershed to the south of the project.

The existing Northshore Country Club Estates stormwater system contains seven ponds. City and state officials, as well as City of Federal Way staff have begun their review of the project to determine what stormwater impact will result from *The Point at Northshore*. The City has reviewed the current submittal and responded to the Proponent with comments. Provided the Proponent addresses staff's comments, which concern basin engineering, construction standards, and flow calculations, the *Proposed Action* will not result in a significant and unavoidable impact. The Proponent must work with City of Tacoma staff to address stormwater planning prior to preliminary plat approval.

A *Wetland Assessment Report* was prepared for *The Point at Northshore* by J. S. Jones and Associates, Inc., dated July 5, 2007. This report identified two wetlands in the northeast portion of the site, which have resulted from the outflow of stormwater from the roof drains of buildings on the adjacent properties to the east. For additional information concerning these wetlands, see **Section 3.5 Critical Areas**.

Northeast Tacoma Watershed

The Northeast Tacoma Watershed covers 2,641 acres and consists primarily of residential land uses with open spaces and undeveloped land. The area borders Commencement Bay and the Tidelands Watershed to the west. Many steep bluffs are located between the uplands areas, Commencement Bay, and the Hylebos Waterway. Pierce County and the City of Federal Way border the area to the north and east. The City of Fife is located to the south.

The existing stormwater system of the North Shore Golf Course feeding into the Northeast Tacoma Watershed generally drains to the south, and consists of a number of conveyance systems draining to three onsite stormwater ponds referred to as Ponds A, C, and D in the stormwater report prepared by Apex Engineering. The existing ponds provide detention and water quality. The ponds operate in a series and ultimately drain to a piped conveyance system within 33rd Street NE and into the Northeast Tacoma Watershed.

Joe's Creek Watershed

Joe's Creek Watershed covers 157 acres and is the smallest of the City's nine watersheds. It is bordered on the north and east by Pierce County and the City of Federal Way, respectively. The area is comprised of single and multi-family residences with some open space and

undeveloped land. Most of Joe's Creek is located in Federal Way. Drainage in this area discharges to Federal Way and eventually to Puget Sound at Dumas Bay. Joe's Creek is used by salmon species in the reach north of Northshore Parkway.

Existing drainage feeding into the Joe's Creek Watershed consists of a conveyance system that leads to an onsite stormwater pond, called Pond B. Water discharges from Pond B through an existing concrete pipe north under Northshore Parkway NE into Joe's Creek. Flooding of the golf course in areas adjacent to Pond B has occurred during periods of heavy rainfall.

3.6.2 Impacts of the Proposed Action

The proposed stormwater facilities will manage drainage into the Northeast Tacoma Watershed and Joe's Creek Watershed. The proposed stormwater facilities include six ponds, depicted below in **Figures 3.6-1 and 3.6-2**. The site will be modified to accommodate the proposed residential development. In the course of the site modifications, the existing onsite ponds shall be relocated and reconfigured in size and shape to provide stormwater mitigation for the development. The design of the stormwater system will be required to comply with the *2003 Tacoma SWMM* and other applicable *Tacoma Municipal Code* provisions.

The Point at Northshore is required to provide stormwater mitigation as outlined in the *2003 Tacoma SWMM*. Final design of specific stormwater elements will be completed at the time of the construction permit submittal. Below is a general description of stormwater impacts resulting from *The Point at Northshore*. See **Figure 3.6-3** depicting the onsite drainage basin boundaries.

Northeast Tacoma Watershed

The Point at Northshore will result in additions of impervious surface throughout the project site. Additions of impervious surface will most likely exacerbate existing onsite drainage problems; therefore, the Proponent's *Conceptual Storm Drainage Report* recommends reconfiguration of stormwater management facilities draining into the Northeast Tacoma Watershed. The three existing ponds will be reconfigured, and two new ponds will be added to provide flow control and water quality. These ponds will discharge stormwater into the Northeast Tacoma Watershed via an enclosed conveyance system within 33rd Street NE.

Design of the ponds and associated onsite conveyance system to meet all provisions of the *2003 Tacoma SWMM* and *Tacoma Municipal Code* will mitigate stormwater impacts to the Northeast Tacoma Watershed.

Joe's Creek Watershed

As mentioned above, *The Point at Northshore* will result in additions of impervious surface at the project site. Additions of impervious surface will most likely exacerbate existing onsite drainage problems; therefore, the Proponent's *Conceptual Storm Drainage Report* recommends reconfiguration of stormwater management facilities draining into the Joe's Creek Watershed. The existing Pond B will be reconfigured to provide water quality and flow control for the proposed development.

Joe's Creek is a salmon spawning creek that flows through the City of Federal Way before draining into Puget Sound. To use in its review of drainage and design of stormwater facilities, Federal Way has adopted the 1998 *King County Surface Water Design Manual* along with its

own 1999 *Addendum to King County Surface Water Design Manual* (hereafter, these documents are referred to collectively as the *1999 Federal Way SWDM*). Due to Joe's Creek's sensitivity, the portion of the creek basin located within Federal Way is designated as a "Resource Stream Protection" area. As such, this portion of Joe's Creek is subject to enhanced water quality treatment requirements as described in the *1999 Federal Way SWDM*. The *2003 Tacoma SWMM* does not expressly require enhanced water quality treatment for the Joe's Creek area; however, it does authorize the City to adopt requirements in its manual based on "pertinent factors." See *SWMM (2003)*, Volume 1 § 1.4. In the case of the *Proposed Action*, the fact that a portion of the site drains into a watershed located almost entirely in the City of Federal Way constitutes a "pertinent" factor. Additionally, as noted in *TMC 12.08.005*, compliance with the *2003 Tacoma SWMM* "does not necessarily mitigate all impacts to the environment." Several City of Tacoma *Comprehensive Plan* policies, such as Policy LU-GGD-7, support the imposition of SEPA mitigation to address impacts that occur in other jurisdictions. Therefore, enhanced water quality treatment consistent with the "Resource Stream Protection" provisions of the *1999 Federal Way SWDM* will be required for the portions of the *Proposed Action* discharging into Federal Way via Joe's Creek.

Stormwater impacts to Joe's Creek Watershed will be mitigated if the stormwater system designed to serve *The Point at Northshore* meets all applicable provisions of the *2003 Tacoma SWMM*, the *Tacoma Municipal Code*, and the water quality treatment standards required by the *1999 Federal Way SWDM*.

3.6.3 Impacts of the Proposed Action Alternative

The stormwater impact of the *Proposed Action Alternative* will likely be similar to the impacts caused by the *Proposed Action*. Although a reduced scale of development could mean a reduction in impervious surfaces, the overall redevelopment of the site will still require mitigation for stormwater impacts.

3.6.4 Impacts of the No Action Alternative

Flooding will likely continue to occur at the North Shore Golf Course during storms with high intensity and/or volume without the stormwater system modifications associated with the proposed development.

3.6.5 Proposed Mitigation

Proposed Action

To mitigate projected stormwater impacts of *The Point at Northshore*, the Proponent shall perform the following mitigation measures:

1. *The Point at Northshore* shall comply with the *2003 Tacoma SWMM*, the provisions of the *Tacoma Municipal Code* in effect on November 9, 2007, and other state and federal regulations pertaining to stormwater and floodplains (see **Section 3.5 Critical Areas** for analysis on impacts to floodplains). Compliance with applicable standards may require redesign or relocation of some building areas, driveways, and other site plan elements.
2. In order to verify and confirm that the proposed development is consistent with the City of Federal Way's adopted water quality standards, prior to issuance of any clearing, grading, or construction, the City of Tacoma shall review all storm drainage plans

impacting the headwaters of Joe's Creek, including the Temporary Erosion and Sediment Control (TESC) design and the final Stormwater Site Plan and associated design drawings.

3. "Resource Stream Protection" enhanced water quality treatment, as described in the *1999 Federal Way SWDM*, shall apply to the portions of the *Proposed Action* that discharge to Federal Way via Joe's Creek.
4. The Proponent shall include a note on the face of the Final Plat that creates a perpetual restrictive covenant stating that all private tracts identified for stormwater ponds shall be owned and maintained by the Homeowners Association and reserved exclusively for stormwater treatment, retention and/or detention purposes.

Proposed Action Alternative

Mitigation under the *Proposed Action Alternative* would be similar to mitigation required under the *Proposed Action*, including compliance with the *2003 Tacoma SWMM* and enhanced treatment for stormwater discharged into Joe's Creek.

No Action Alternative

No additional mitigation is necessary with the *No Action Alternative*. However, flooding of portions of the golf course is expected to continue to occur.

3.6.6 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse *Stormwater* impacts are anticipated as a result of *The Point at Northshore*, the *Proposed Action Alternative*, or the *No Action Alternative*.