

**Exhibit 4-2: Stream Basin Characteristics**

	<b>Sturtevant Creek</b>	<b>Yarrow Creek</b>	<b>W. Tributary to Kelsey Creek</b>	<b>Goff Creek</b>	<b>Valley Creek</b>
Basin size (acres)	773	1,667	1,001	679	1,391
Stream Length (ft)	4,049	18,738	14,585	7,028	13,295
Tributary to	Mercer Slough	Lake Washington	Kelsey Creek	W. Tributary to Kelsey Creek	Kelsey Creek
Percent impervious	68	29	44	30	32

Source: City of Bellevue, 2002.

**Sturtevant Creek Basin**

Exhibit 4-1 shows the portion of the project located within Sturtevant Creek basin. Sturtevant Creek is approximately 4,049 feet long with a drainage basin area of 773 acres. The stream begins at an elevation of 150 feet above mean sea level and drops approximately 120 feet along the way until it discharges into Mercer Slough. The basin has been heavily urbanized with an overall impervious land cover of 68 percent. Most of the stream flows through heavily developed commercial areas, and much of the stream has been contained by culverts.

The main branch of Sturtevant Creek originates in Lake Bellevue, which is located approximately 1,500 feet northeast of the I-405/NE 8th Street interchange (see Exhibit 4-3 and 4-4). The stream begins as an open channel discharge from the southwestern end of the lake and continues south alongside the BNSF Railway right-of-way. Near the intersection of NE 8th Street and 118th Avenue NE, the stream flows into a closed pipe system. From there, Sturtevant Creek flows generally west/southwest along I-405 in alternating segments of closed pipes and narrow open channels. Upstream of the I-405 crossing, the stream flows into a closed conveyance system. At I-405 milepost 13.28, south of the southern project limit, the stream crosses under I-405 via two 48-inch concrete culverts from east to west.

**What are impervious areas?**  
 Man-made surfaces that cause rainwater to run across the surface and do not allow the water to infiltrate into the ground are called impervious surfaces. As stream basins become more developed with impervious surfaces (i.e., roads, houses, sidewalks, driveways), the amount of stormwater runoff into streams increases and can cause problems. The percentage of impervious area is a key indicator of how urbanized and developed a basin is.



**Sturtevant Creek**

I-405, NE 8TH STREET TO SR 520 IMPROVEMENT PROJECT  
 WATER RESOURCES DISCIPLINE REPORT

Exhibit 4-3: Sheet 1 of 6: Surface Waters and Floodplains, I-405 MP 13.5 to 14.2

