

TABLE 8-9
Technical Factors

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Constructibility (construction risk & degree of difficulty)	<u>Above Average:</u> Construction of below grade storage tank in south Lake Union in high groundwater area. Construction of 24 miles of storm sewers in urban areas.	<u>Average:</u> Requires construction of tunnel, pump stations, disinfection facilities, and pipelines in urban areas. Relatively standard construction methods required. Smaller diameter tunnels have less risk than larger diameter tunnels.		<u>Above Average:</u> Construction of treatment plant on a confined site. Pipelines and tunnel in urban areas. Deep water outfall in heavy marine traffic area.	<u>Above Average:</u> Requires construction of large diameter tunnel(s) in urban areas. Large diameter tunnels have higher construction risk than smaller diameter tunnels.	
Operability (ease of operation and maintenance)	<u>Average</u> Relatively simple operation with storage tanks and pumping only. However, two storage tanks need cleaning.	<u>Average:</u> Relatively simple operation with tunnel storage, pumping, and disinfection.		<u>Below Average:</u> Greatest amount of process control required to meet discharge limits. Operation will be similar to Carkeek and Alki Wet Weather Plants	<u>Above Average:</u> Relatively simple operation with tunnel storage and pumping operations. No disinfection and dechlorination systems to be maintained.	
Operability (ability to meet discharge limits)	<u>Above Average:</u> No CSO treatment processes required, only pumping and storage.	<u>Average:</u> Majority of flows are stored and conveyed to West Point for treatment and disposal. Only treatment processes required are disinfection and dechlorination.		<u>Below Average:</u> Settleable solids and disinfection systems must operate under intermittent flow conditions.	<u>Above Average:</u> No CSO treatment processes required. Flows diverted to West Point for treatment and disposal, except for one untreated discharge per year into Elliott Bay.	
Implementability (public acceptance)	<u>Below Average:</u> Potential public opposition to large storage tanks at south Lake Union and Elliott West and short-term disruption from 24 miles of sewer construction.	<u>Average</u> Potential public opposition to on-site pumping stations and disinfection facilities at Elliott West and shallow water outfall.		<u>Below Average</u> Potential public opposition to large on-site CSO treatment facilities at Elliott West and deep water outfall	<u>Below Average:</u> Potential public opposition to pumping station at Elliott West, and short-term disruption from tunnel construction.	