

5. PROPOSED MPU IMPROVEMENTS

5.1 SUMMARY OF PROPOSED IMPROVEMENTS

MPU improvements that would likely require stormwater management are summarized in Table A-3 (Appendix A). Also included in Table A-3 are the names of potential stormwater detention facilities that could serve the new MPU improvements. These facilities are described in more detail in Section 6.1.3.

The primary MPU improvements are shown in Figure 5-1. This figure shows the general extent of the major projects and proposed new impervious surfaces. Minor MPU improvements are not shown on this figure; these are primarily located in the terminal and air cargo redevelopment areas and generally do not create new impervious surface area draining to the SDS. Also, the SMP addresses only permanent projects.¹⁵ These and other projects that may be developed to support needed infrastructure improvements will be evaluated for stormwater impacts based on criteria established herein to ensure that cumulative impacts are addressed. Updated information on all MPU improvements would be periodically incorporated into the SMP as necessary.

The Airport Surveillance Radar (ASR), which is being relocated as a result of other MPU improvements, was not evaluated with other MPU projects. It is located outside of the active STIA footprint on the west side acquisition area. Although total impervious area on the site will decrease from 1994 to 2006, effective impervious area (EIA) will increase. Level 2 flow controls will be provided to meet the target flow regime discussed in Section 2.1.3 (the predeveloped condition is adjusted to assume 75 percent forest; the 3 percent EIA is less than 10 percent and is unadjusted; the remainder is grass). The site will be accessed only for infrequent maintenance and repair (no more than four times per week), thus will not have PGIS. See Appendix Y for discussion of hydrologic analysis and flow controls and Section 7.1.2.5 for discussion of water quality.

MPU improvements in Table A-3 (Appendix A) are based on project scheduling developed in late 1998, and will likely change as project priorities change and schedules are further refined. In general, projects not assigned a construction start and end date have not been scheduled, other than being assigned to one of the four MPU phases (i.e., Phase I, II, III, and IV).

5.2 LAND USE CHANGES

To determine the future land use characteristics of the airport property, available data on current MPU improvements were compiled into a GIS database to allow the calculation of pervious and impervious areas. The GIS database was also used to calculate changes in soil types and vegetation cover. These data were then incorporated into the HSPF modeling analysis, as discussed in Section 4.4.1. Figure 4-2 illustrates the 1994 land use condition and Figure 4-3 depicts drainage subbasin boundaries prior to 1994.

¹⁵ The SMP addresses permanent projects. The SR 509 temporary interchange project was not evaluated as an MPU project in the SMP. However, temporary stormwater impacts from the SR 509 interchange are being evaluated by King County under separate cover (HNTB 2000).

