Filling wetlands: The Approval Process

The regulators. To fill wetlands with embankment fill and to move Miller Creek away from the toe of the embankment, the Airport must have approval from state and federal environmental regulators. The project needs one official permit and one official certificate, as laid out in the federal Clean Water Act (CWA).

The permit is required by sec. 404 of the Act. Such permits are issued by the U.S. Army Corps of Engineers. To secure approval from the Engineers, the Port must first secure a certificate from the State, under the provisions of sec. 401 of the CWA, that there is “reasonable assurance” that the project will violate State water–quality standards. The State’s review is conducted by the Department of Ecology. One application covers both processes.

Prior proceedings. The Port has tried twice to secure the sec. 401 and sec. 404 approvals, and twice has had to start over. The third application was filed in October 2000. At that time, the Port said that it expected the third application to be OK’d by the two agencies within a very few weeks. That did not happen.

The problems. Basically, the environmental engineers must re–think and re–design the entire run–off, stream flow, groundwater, and drainage patterns for Des Moines Creek and for Miller Creek and its tributary Walker Creek, with their associated wetlands, ponds, and lakes.

The problems are considerable. Here is our summary of some of the main ones.

Embankment fill—contamination. The embankment—which is perhaps one fifth to one fourth completed—requires a lot of fill—19.84 million cubic yards. There is not much fill to be had, and some of what has been delivered to date is contaminated. The regulators do not want past or future contamination to leach into the wetlands and surface waters.

Streamflow. Fish and other stream life forms

LINKS

Washington State Pollution Control Hearings Board

Department of Ecology

Clean Water Act (Legal Information Institute of Cornell Law School)

Washington State Water Law
The most pertinent sections of the RCW are *Title 90 Water Rights--Environment*, and *Title 43 Executive*, Chapter 43.21A -- Department of Ecology, and Chapter 43.21B-- Pollution Control Hearings Board.

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Review by Ecology

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require a sufficiency of water in the streams 365 days a year. But there has been a lot of loss of stream flow since human settlement in the area began in earnest in the 1880s. And the third runway would divert a lot more water away from the streams. One of the biggest issues has been how to maintain streamflow, especially in the usual Summer drought. With the runway in place, there just won't be enough water to go around. Needless to say, this poses a salmon issue. Ideas of using well water, or impounding surface water, raise tricky legal issues about water rights. And it will be very pricey to build vaults to impound run–off till dry spells.

Flooding. Destruction of upstream wetlands also *increases* streamflow in the wet season, when water in the streams should be reduced. The result is flooding, scouring of banks and stream bottoms, stream siltation, and habitat damage generally.

Wetlands. No question about it—the runway will destroy nearly 20 acres of wetlands, and that is simply not allowed. The Airport proposes creating some new, replacement wetlands over in Auburn (in another drainage basin). The Port's environmental consultants also proposed building other wetlands in–basin. But there are long–standing concerns about whether artificial wetlands really work. Studies in Washington indicate that most artificial wetlands simply don't do the job.

Embankment stability. The whole area is seismically sensitive. Sea–Tac Airport suffered widespread damage in the Nisqually earthquake in 2001. The embankment will NOT be held in place with a giant concrete wall. Instead, the Port proposes the so–called Mechanically Stabilized Embankment technique: layers of the fill are interleaved with some sort of material to lend additional stability. It is proposed to use strips of steel in this case. No such wall of the height and length of the embankment has ever been built, nor has any such wall been built for a 19.84 million cubic yard structure. How will this stand up when the next earthquake strikes?

Pollution. The streams running down from the Airport are already polluted. Tests have repeatedly shown that pollution already exceeds allowable limits. Adding another runway will add more pollution. The Airport does not have adequate plans to prevent future pollution or to deal with what’s going on now.

Public need. The Corps of Engineers has to balance destruction of wetlands against public need. That in turn raises the question, Why build at *this* site? What are the practical alternatives? What was wrong with the possible sites for a second airport that the Puget Sound Regional Council summarily rejected in the 1990s? Why build at all? Is there any real benefit from the project? What IS the real justification for this project? All this in turn leads one into the misty world of defining “delay” and estimating air–travel needs for 10, 20, or 30 years into the future. The Engineers are known to be having a lot of trouble with these questions.

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