

RCAA comments on the draft of a renewed NPDES permit for Seattle-Tacoma

submitted on 21 April 2003

The following comments on the draft of a renewed NPDES permit for Seattle-Tacoma International Airport & accompanying Fact Sheet are submitted on behalf of the Regional Commission on Airport Affairs (RCAA). The interest of RCAA in matters relating to Sea-Tac Airport is well-known to the Department of Ecology & need not be restated. Our comments primarily address the actual permit, after a brief mention of concerns as to the Fact Sheet.

The comments on the permit itself follow the format of the permit, so that we deal with the three specific sections: "Industrial Waste Water (Section I), Non-Construction Stormwater Runoff (Section II), and "Construction Stormwater Discharge Limitations and Monitoring (Section III) in that order.

The text of these comments was previously sent to you via e-mail, with a copy also sent to Tricia Miller, Water Quality Permit Coördinator. The formatting & pagination in this hard-copy letter are slightly different from that in the e-mail version. The text is unchanged, except for correction of a few minor typographical errors.

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FACT SHEET

Most NPDES Permit Fact Sheets include a section on compliance with the previous permit. This lets the public know how a facility is doing in terms of compliance and informs the public what actions Ecology is taking as a result to correct any problems. The instant Fact Sheet does not have a section on compliance with the previous permit. The Fact Sheet should be revised to include this information.

PERMIT

Part I: Industrial Wastewater System (IWS)

General Comments

The outfalls identified in the Port's previous permit have been retained for the most part (only the Taxi Yard has been eliminated), and the permit requires monitoring of these 14 outfalls on a monthly basis at the point of discharge. The permit also lists four new outfalls that will require Ecology notification before use and the same sampling as above.

A major issue for the IWS section of the permit is the compliance schedule for implementing AKART. Another major issue is the long delay before the effluent limit for Biological Oxygen Demand (BOD) discharge for outfall 001 comes into effect. We urge that this limit should come

into effect in the immediate future. Ecology is aware that the Port is violating the water quality standard for Biological Oxygen Demand (BOD₅) on a regular basis from outfall 001.

S1. Discharge Limitations

The draft permit does not require the Port to treat contaminated stormwater adequately. Major studies have shown that the local streams are not meeting water quality standards for copper and zinc, which are very harmful to fish. Ecology should require the Port, in this permit cycle, to implement treatment Best Management Practices (BMPs) known to be effective at removing dissolved metals from stormwater.

S2. Monitoring Requirements

The permit should require "first flush" sampling of all stormwater discharges within the first 30 minutes of storm events. It is well known that the "first flush" of stormwater contains the highest levels of contaminants. But the draft permit only requires sampling of flow-weighted composites, which do not reveal the highest levels of stormwater pollution.

S3. Acute Toxicity

The draft permit does not require the Port to do enough to identify & to address the impacts of the deicers & anti-icers used on aircraft, runways, & taxiways. The deicing/anti-icing chemicals degrade water quality by consuming oxygen as they decompose. The permit should impose effluent limits for biological oxygen demand (BOD) & chemical oxygen demand (COD); the permit should require the Port to sample & to report both BOD and COD. The sampling to measure the impacts should occur immediately following application of the deicing chemicals.

The draft permit does not address the toxicity of additives used in deicing/anti-icing products. Recent studies show that these additives – typically, corrosion inhibitors & flame-retardants containing chemicals called triazoles – may cause adverse aquatic toxic effects. The permit should require testing of lethal toxicity as well as sublethal toxicity of actual stormwater discharged during a deicing event at Sea-Tac. In addition, the Port should sample its discharges for the presence of these harmful additives (& should file reports on that sampling).

S6. Operations and Maintenance

The "Comprehensive Receiving Water and Stormwater Runoff Study" (Permit Part II, Cond. S6) is not well designed, & should be strengthened. The Study should evaluate dissolved oxygen levels in the receiving waters, as well as BOD & COD in the stormwater discharges. In addition, the Study should specifically require sampling of stormwater discharges from SDS3 – the most significant airfield stormwater outfall. The Study should also include an assessment of the Index of Biological Integrity (IBI) for Des Moines Creek -- the only creek excluded from that requirement in the draft permit. Des Moines Creek receives more stormwater from Sea-Tac Airport than any other creek. We see no reason to exclude Des Moines Creek from this requirement.

The permit should require the Port to sample & to report effluent constituents & volumes of untreated overflows from the Industrial Wastewater System (IWS). The draft permit acknowledges that overflows may occur at Lagoon 3, & at the outfalls from the North & Central Snowmelt facilities (SDN2, SDE4).

The draft permit authorizes a mixing zone for discharges of industrial wastewater into the Puget Sound, but the fact sheet does not provide any data showing that the discharges will not result in damage to the ecosystem. This is a problem because the Midway Sewage Treatment Plant discharges through the same outfall.

S10. Compliance Schedule - IWS

Ecology admits in the draft permit that the requirement for the Port to conduct an AKART engineering study was included in the Airport's 1994 NPDES permit. The Port submitted this AKART engineering report in 1995. Now, eight years after the Port's consultant determined that implementation of AKART is to discharge the IWS waste to the sewer system (the Renton Sewage Treatment Plant), the new permit sets a compliance schedule with milestones to achieve AKART. The only problem is that the schedule – which should only run through next year, or 2005 at the latest – instead runs until July 2007. Ecology is aware that this prolonged delay is not in accord with usual regulatory practice; an explanation is offered that there are permitting difficulties related to the third runway. The permit states that the milestone & completion dates are non-negotiable. This is stronger language in this permit than what one finds in most permits, but given that the Airport & the Department are missing the 10-year “drop-dead date” by three or more years, it is not overly impressive, & the reference to permitting difficulties does not present a reasonable justification for the delays. The Airport's obligations under sec. 402 are irrelevant to difficulties that the Airport may have with the scheduling of its unrelated third-runway construction projects – the runway is no excuse for allowing the compliance date to slip beyond the 10-year deadline.

The picture gets even murkier when looking at the effluent limits for Outfall 001. The permit milestones for AKART give the Port a six-month “shake down” from the start of operation to the requirement for “compliance”, from 1 January 2007 to 1 July 2007. In practical fact, the compliance date is 1 July 2008. A footnote in Table 1 which includes the effluent limits for BOD, gives the permittee another year from 1 July 2007 until the BOD effluent limit is “applicable”. BOD is the only issue identified in the permit for which the Airport's Industrial Wastewater System is known to be violating water quality standards NOW, in April 2003. This means the implementation date for full AKART compliance is misrepresented & the real date is actually a year later than the date given in the compliance section. Delaying full compliance till 1 July 2007 is regrettable; delaying compliance another year beyond that is unsupportable.

Part II: Non-Construction Stormwater Runoff

General Comments

The section starts off with final effluent limits, which sound good until one read the details. However, the effluent limits only apply to the four outfalls (out of 14) that discharge “directly” to receiving waters. These include outfalls SDE4, SDS1, SDS4 & the Engineering Yard. The first three of these outfalls discharge to Des Moines Creek, & the last one discharges to Gilliam Creek. The requirements also cover the not-yet operating outfalls. Of these, three will discharge to Miller Creek & one will discharge to Walker Creek. In our view, the final effluent limits should apply at each & every outfall.

In addition, the effluent standards only apply after 1 January 2008, or, basically, five years from now. Part of the reason for the delay is that the permit does not require the Port even to start construction of treatment BMPs until 2006. (See our comments on Part I, Condition S10: Compliance Schedule.) In our view, retrofit & BMP construction on the existing outfalls should start in six months, not three years.

The list of chemicals that the Port is required to sample for is reasonable, considering what has the highest potential to occur at levels that would cause a problem. Two exceptions are arsenic and cadmium. While the Port’s (and Ecology’s) position is that previous sampling has shown that those metals are not in their discharges, sampling for these two contaminants has not taken place since the start of large-scale construction activities in the non-construction stormwater basins. According to Port documents in our possession, these construction activities in existing south and east side airport areas have run into unexpected contamination so frequently that the Port has had a \$13,000,000 cost over-run for unanticipated contamination in the last two years alone. This fact surely points to the need for tightened sampling.

Non-construction stormwater outfalls include those that discharge to Lake Reba and the “Northwest Ponds Regional Detention Facility.” These include nine outfalls: SDS2, SDS3, SDS7, SDS6, SDS5, SDN1, SDN2, SDN3, SDN4. In meetings between our consultant, Greg Wingard, and Ed Abbasi, our consultant has repeatedly emphasized that the Northwest Ponds are Waters of the State, consistent with written Ecology policy. The Port has apparently successfully persuaded Ecology to classify the Northwest Ponds as a detention facility. If the Northwest Ponds are classified as a detention facility, only the discharge leaving the Northwest Ponds will be required to comply with water quality standards. This would allow the Port to use Waters of the State to mix effluent discharges from the Port with others’ discharges, & thus to get credit for dilution. The point is that no limits will apply to what comes out of individual pipes discharging into the Northwest Ponds, which again, has been classified by Ecology as Waters of the State. This is impermissible, for it effectively insulates the Port from having to clean up unacceptable levels of pollution from individual outfalls into Waters of the State. See second full paragraph, p.7, below.

In conversations between our consultant & Mr Abbasi prior to issuance of the draft permit Mr. Abbasi stated that no determination on this issue would be made until after the draft permit was issued & then there would be public input. Evidently, someone at Ecology has made this decision without public input, & did not inform the public of the decision, as evidenced by its existence in the final draft permit.

We are also concerned that the permit does not require sampling immediately after a problem at any outfall occurs. This section of the permit should require sampling if any unusual condition is noted (change in color, turbidity, oily sheen, or odor).

S3. Compliance with Standards

For non-construction stormwater (permit part II) condition S3 says that the permittee “must” comply with water-quality standards, groundwater standards, sediment standards, and human-health standards. It is not clear how these conditions square with the effluent limits for the four outfalls that have limits far higher than the water quality standards. The remedy for this ambiguity is clear.

S4. Operations and Maintenance

Condition S4 B (d) allows the Port to bypass to a body of water other than what the discharge is permitted for, in the agency’s discretion. This is at direct odds with what was learned from the permit manager, & has changed from the early draft of the permit, which said that such discharges would not be allowed. Ecology previously stated that the discharge could only bypass the treatment system, not hop from one basin to another. Needless to say, this is unacceptable, for it allows discharges intended for the Puget Sound to be discharged directly to Des Moines Creek.

S5. Stormwater Pollution Prevention Plan (SWPPP) for Industrial Facilities

The permit requires that a copy of each facility Storm Water Pollution Prevention Plan be maintained at Ecology’s regional office for the purpose of being viewed by the public. This is good as far as it goes, but in truth is really not sufficient, because it presents an unreasonable burden on the communities affected by the effects of these activities. In keeping with prior requirements, Ecology should require that copies of the Plan be maintained at local libraries in the local municipalities (Burien and Des Moines Libraries) where the impacts of the activities can be monitored by those affected. Ecology has previously required Port Discharge Monitoring Reports and other related documents be provided at these locations. This was & is a reasonable condition.

S6. Comprehensive Receiving Water & Stormwater Runoff Study

The treatment control BMP language is weak & should be revised in light of the recent state Pollution Control Hearings Board (401) decision.

Condition S6 requires a comprehensive receiving-water quality study to be done, including benthos indexing (IBI) for Miller, Gilliam, & Walker Creeks. The study is required for Des Moines Creek as well, though not the IBI testing. There is no explanation why Des Moines Creek is excluded from IBI testing – perhaps a drafting oversight? IBI testing for Des Moines creek should be included.

The chemicals that the Port is required to analyze should include arsenic, especially for Miller & Walker Creeks, because of the potential of arsenic being mobilized during construction activities. We need not provide a lot of detail – we are certain that Ecology is fully aware that the whole Sea-Tac area was “dusted” with fall-out containing arsenic when the smelter at Ruston was in operation, & recent testing has confirmed the presence of arsenic very widely, & at levels of concern. However, it is not clear if this is for Lake Reba & the Northwest Ponds, or just for the discharges from them. This point needs clarification, & the permit should include the requirement that biological oxygen demand be monitored for all discharges into Lake Reba & the Northwest Ponds.

The draft permit also requires an assessment & if necessary an action plan on the separation of Port from non-Port discharges. For the past ten years (since the development of the Port’s 1994 NPDES permit), the Port has been allowed to claim that others are responsible for the pollutants monitored in their sampling points but has never been required to provide proof, or most importantly to fix the problem. It is unacceptable that this study plan is required next year, but that the study itself is not due until six months prior to the expiration of the permit. While there are, obviously, more than a few points that are of concern to this organization, the long periods allowed for further contamination, the late compliance dates, & the extended time for completion of important studies are of particular importance. The public may not understand “waters of the State” or “BOD”, but the public understands delay very well.

The permit requires sub-lethal toxicity testing using early-life-stage salmon and Rainbow Trout. The testing is required for all the creeks, but allows sampling of the discharges from Lake Reba & Northwest Ponds, rather than the individual outfalls discharging to those water bodies. Sampling of the individual outfalls discharging into Lake Reba & the Northwest Ponds should be required.

The permit requires acute toxicity testing for the non-construction stormwater discharges. If toxicity is found, the permittee is required to do a toxicity identification/reduction evaluation plan and to submit it to Ecology. The schedule for implementation of this testing & reporting is not clear. The schedule should stress promptitude.

S9. Compliance Schedules

Condition S9 is the compliance schedule for IWS discharges to Puget Sound, & the IWTP compliance schedule. By 1 January 2004 the Port must identify all outfalls with potentially contaminated runoff and must submit an AKART engineering report that includes corrective measures and a compliance schedule. The condition (A) is tied to the following condition (B) which sets the milestones for compliance for implementation of BMPs, which starts with a final engineering report by 1 January 2004. Construction is to start by 31 July 2006, with compliance by 31 December 2007.

Conditions that the draft permit would implement to address stormwater are done too slowly. The Port should be held to the 30 June 2004 deadline for AKART implementation, **as stated in the current permit**. Relaxing the deadline, as proposed in the draft permit, would result in the discharge of an additional several hundred million gallons of inadequately treated industrial

wastewater to Puget Sound. Thus, the draft permit fails to impose adequate safeguards during the next many months.

Part III: Construction Stormwater Discharge Limitations and Monitoring

General

S1.A.1 Construction Stormwater Runoff Outfalls and Effluent Limitations

There are 14 existing construction outfalls and 23 future outfalls listed in the permit. None of these outfalls is identified with a physical address or meaningful information to indicate the location. This section should be revised, indicating the address where the outfall or proposed outfall is located (e.g. S. 160th and 12th Avenue S., S. 200th and 16th Ave. S, etc.).

S1. A. 2 Effluent Limitations

Table 2 in this section should be revised to include effluent limitations for dissolved metals including copper and zinc at levels not exceeding water-quality standards.

Additional Comments

The draft permit fails to require publication of an annual Stormwater Report. This requirement should be incorporated into the permit. Copies of the annual stormwater Report and supporting documentation should be provided to the local communities & made available at the Des Moines and Burien Libraries for inspection by the public.