

**E. O'Brien**

**AR 015662**



1 Ed O'Brien, declares as follows:

2 **I. My Background**

3 1. I am employed by the Department of Ecology (Ecology) in the headquarters  
4 office of the Water Quality Program. I have been employed by Ecology for 22 years. My title  
5 is Environmental Engineer 4. I have been assigned to stormwater issues for eleven years. For  
6 the past three years, my primary responsibility has been to help develop a stormwater  
7 management manual for Western Washington. In past years, I have also participated in the  
8 development and implementation of NPDES permits for stormwater discharges from municipal  
9 storm sewers, from construction activities, and from industrial sites. My role in developing  
10 Ecology's most recent stormwater management manual was as the lead staff person for  
11 Volume 1 - "Minimum Technical Requirements and Site Planning"; for chapters 2 - 4 of  
12 Volume V - "Runoff Treatment Best Management Practices (BMPs);" and as a support person  
13 for Volume III - Hydrologic Analysis and Flow Control Design/BMP's. I am currently  
14 involved in delivering training to local governments and consultants on the use of the new  
15 manual.

16 2. My educational background includes a Bachelor of Science degree in 1975 in  
17 Engineering Science from the University of Notre Dame, and a Master of Science degree in  
18 1976 in Environmental Health Engineering from the University of Notre Dame.

19 **II. Ecology's 2001 Stormwater Manual**

20 3. Ecology's most recent Stormwater Management Manual for Western  
21 Washington was published in September 2001. Therefore, it was not in effect during the time  
22 that the SeaTac Third Runway project was under development. It is my understanding that the  
23 Third Runway project has utilized the 1998 King County Surface Water Design Manual in  
24 regard to stormwater management.



1 federal rules and guidance for stormwater. In the generic, presumptive approach used for  
2 stormwater, it is assumed that the application of treatment BMPs in accordance with the 2001  
3 Ecology manual will result in compliance with water quality standards in most cases. This  
4 presumptive approach is used because the numbers of new stormwater discharges that are  
5 created are too numerous to apply the standard case-by-case approach, and for most standard  
6 residential and commercial projects, the risk of causing standards violations is greatly reduced  
7 by the application of the appropriate treatment BMP's indicated by the manual. However, the  
8 application of the generic, presumptive approach does not guarantee compliance with water  
9 quality standards.

10 6. The generic, presumptive approach in the manual for the selection of  
11 appropriate stormwater treatment is described in Chapter 4 of Volume I, and is repeated in  
12 Chapter 2 of Volume V. The selection process identifies different levels of treatment that  
13 apply to different types of land uses depending upon the type of receiving water. Chapter 3 of  
14 Volume V of the manual describes the different levels of treatment – Oil Control, Phosphorus  
15 Treatment, Enhanced Treatment, and Basic Treatment. Application of the treatment selection  
16 process in the manual to the Third Runway project would result in use of a treatment facility or  
17 facilities from the Enhanced Treatment menu. This result is obtained because the airport  
18 would be viewed as an industrial or commercial operation that discharges to fish-bearing  
19 streams. The purpose of the Enhanced Treatment menu is to reduce the potential for the  
20 violation of water quality standards for various metals, especially copper, zinc, and lead.  
21 However, as stated above, the use of Enhanced Treatment would not guarantee compliance  
22 with water quality standards. This is so, at least in part, because we do not know sufficient  
23 site-specific information to make that judgment. The concentrations of metals in the airport  
24 discharges and the background receiving waters, and the flow rates of the discharges and  
25 receiving waters, are necessary to make a decision concerning the needed level of treatment.

26




1 | chapter includes media filters, amended sand filters, catch basin inserts, and other facilities as  
2 | examples of emerging technologies for stormwater treatment. Ch. 12.6.

3 | **VI. Site Specific Data May Supersede The Manual**

4 | 10. The level of treatment indicated by the generic, presumptive approach can be  
5 | superseded wherever site-specific information is available or is required. Ecology reserves the  
6 | right to require site-specific studies for any proposed or existing discharge situation. "Federal,  
7 | state, and local permitting authorities can require more stringent measures that are deemed  
8 | necessary to meet locally established goals, state water quality standards, or other established  
9 | natural resource or drainage objectives." (Volume 1, Chapter 1, Section 1.1) In the case of the  
10 | Third Runway expansion, the amount of runoff into the nearby surface waters is of sufficient  
11 | quantity to merit site-specific studies to determine the level of treatment necessary to meet  
12 | water quality standards in the receiving waters and to protect beneficial uses. In this particular  
13 | case, from the limited data I have seen, I could not conclude that dissolved metals in Seattle-  
14 | Tacoma International Airport's stormwater would or would not likely exceed water quality  
15 | standards after the application of treatment options from the Basic Treatment menu.

16 | I declare under penalty of perjury under the laws of the state of Washington that the  
17 | foregoing is true and correct.

18 | DATED this 7<sup>th</sup> day of March.

19 |  
20 |   
21 | ED O'BRIEN