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BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 99-1

EXHIBIT ____ (MC-T)

SUMAS ENERGY 2 GENERATION
FACILITY

APPLICANT'S PREFILED DIRECT TESTIMONY

MARGARET CURTIS

Q. Please reintroduce yourself to the Council.

A. My name is Margaret Curtis. I am a professional engineer licensed in the State of Washington, and my business address is Wilson Engineering, L.L.C., 805 Dupont, Suite 7, Bellingham, WA.

Q. What is the subject of your testimony?

A. My testimony will address two topics: First, my background and experience. Second, the changes to the stormwater system incorporated in the Second Revised Application.

EXHIBIT ____ (MC-T)
MARGARET CURTIS'
PREFILED TESTIMONY - 1

[31742-0001/Curtis]

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Background

Q. What is your title and occupation?

A. I am majority owner and managing member of Wilson Engineering, L.L.C., a civil engineering and land surveying company.

Q. Please describe your education and experience.

A. I hold bachelors and masters degrees from Rice University, and have worked for more than twenty-five years in the civil environmental engineering field -- three years in environmental research, and twenty-two years in consulting engineering. A copy of my resume was submitted previously as Exhibit 81.1.

Q. What is your role in the SE2 project?

A. Our firm has been engaged by both the City of Sumas and SE2 to consult primarily on wastewater and stormwater issues related to this development. I have been our company's project manager for work in Sumas since approximately 1995.

1 **Stormwater System**
2

3 **Q. Could you generally describe the changes to the stormwater system**
4 **incorporated in the Second Revised Application?**
5

6 A. The stormwater system described in the Second Revised Application reflects
7 two primary changes since the previous application. First, the treatment and
8 detention portions of the stormwater system have been moved to a location
9 immediately south of the facility. Second, the stormwater system has been
10 expanded to conform with Ecology’s latest Stormwater Management Manual.
11

12 **Q. Let’s take each of those changes in turn. First, can you explain how the**
13 **location of the stormwater system has changed?**
14

15 A. This change is best understood with a side-by-side comparison of the previous
16 proposed wetland mitigation site plan (a copy of which is attached to Katy
17 Chaney’s testimony as Exhibit KC-1) and the new proposed wetlands
18 mitigation site plan (a copy of which is attached as Exhibit KC-2 to Katy
19 Chaney’s testimony). We relocated the proposed two-cell detention and
20 treatment ponds into the area that was previously set aside for the diesel fuel
21 storage tank, which is now deleted from the project. This change means that
22 the existing wetlands to the west of the site will not be impacted by the
23 detention pond construction. There will be wetland areas to the west, the open
24 water of the treatment/detention ponds in the center, and additional wetlands to
25 the east on the Port property. The combination and arrangement of the open
26

1 water ponds located between the two wetland areas provides a greatly
2 expanded waterfowl and aquatic habitat corridor compared to the previous site
3 plan. At the new pond location, we have maintained the previous natural-
4 looking design, including gently sloped and curved banks, and an isthmus of
5 land between the two cells. The pond banks provide shallow, intermittently
6 saturated shoreline, which creates vegetative substrate and habitat for
7 microorganisms, fish, amphibians and waterfowl. Each cell will have a 2- to
8 2.5-foot deep permanent pool.
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18 **Q. You said the stormwater system has also been changed to conform with**
19 **Ecology's latest manual. Can you explain that?**
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24 A. We modified the site's stormwater management plan to conform to Ecology's
25 Final Draft of the Stormwater Management Manual for Western Washington
26 (DOE Publication No. 99-12), which has been available only in draft form for
27 the last several years. At this writing we still await advance copies of the Final
28 Manual from Ecology prior to the final published document being made
29 available to the general public.
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37 Proposed compliance with the soon-to-be-published Stormwater Management
38 Manual results in twice-as-large detention facilities due to the use of different
39 runoff models. To give you a sense of the different volumes, the stormwater
40 treatment/detention ponds in the previous application had a total volume of
41 3.74 acre-feet between the two cells. The Second Revised Application
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1 provides a total pond volume of 7.3 acre-feet in two cells: 2 acre-feet of
2 permanent pool dead storage for treatment, and 5.3 acre-feet for detention
3 above the permanent pool elevation of Cell 2. In terms of surface area
4 available to wildlife, the Second Revised Application provides an additional
5 2.86 acres of ponds and associated shorelines compared to the previous design.
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11 The King County Runoff Time Series (“KCRTS”) was used to model site
12 runoff for the SE2 site with Ecology’s concurrence. The KCTRS model better
13 reflects the low intensity, multi-day rains prevalent in the Pacific Northwest,
14 and is the most appropriate modeling tool available for use at this time. We
15 have demonstrated to Department of Ecology Engineer Steve Hood that the
16 permanent detention and treatment facility will effectively serve as a temporary
17 sediment pond during construction, and as a permanent treatment and detention
18 pond during facility operation. Mr. Hood has reviewed our conceptual
19 stormwater management plan for both the construction and facility operation
20 phases, and has indicated to us that if the final plans faithfully execute the
21 conceptual plan, the stormwater management design will meet Ecology’s
22 requirements.
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38 **Q. SE2 and the Washington Department of Ecology entered into a stipulation**
39 **with respect to stormwater issues during the prior adjudication. Does the**
40 **revised stormwater plan meet the conditions set forth in that stipulation?**
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A. Yes, and it goes a significant step further. The construction and facility operation stormwater conceptual plans now comply with the soon-to-be implemented Final Stormwater Manual mentioned earlier. The previous stipulation did not include that benefit.

END OF TESTIMONY