

BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 99-1:

EXHIBIT _____ (MC-T)

SUMAS ENERGY 2 GENERATION
FACILITY

CITY OF SUMAS PREFILED DIRECT TESTIMONY

WITNESS #1: MARGARET CURTIS, P.E.

Q. Please introduce yourself to the Council.

A. My name is Margaret Curtis. I am a professional engineer licensed in the State of Washington, and am majority owner and managing member of Wilson Engineering, L.L.C., Bellingham, WA.

Q. What is the subject of your testimony?

A. The subject of my testimony is the sewage disposal contract among Abbotsford, Fraser Valley Regional District, and Sumas, and the ability of the Sumas sewer system to accommodate development of the referenced Sumas Energy 2 ("SE2") generation facility.

Q. Please describe your background and experience.

A. My area of expertise is environmental engineering, which means that among other things I design and provide consulting services for sewage collection, transmission and treatment facilities. I have twenty years of engineering experience related to analysis, planning, design and construction management of municipal utility infrastructure. Before moving to Bellingham in 1991, I worked as a licensed professional engineer in Houston, Texas. In Texas and in Washington, many of my consulting assignments have been directly concerned with analyzing the capacity of existing sewer systems, and planning sewer system expansions. A copy of my resume is attached as Exhibit _____ (MC-1).

Q. Please describe your prior experience related to the Sumas sewer utility.

- A. Commencing in 1995, Wilson Engineering was engaged by the City of Sumas and National Energy Systems to assist with sewer system planning. My work with the Sumas sewer system since that time has included the following projects:
1. Determination of future projected wastewater flows from domestic populations in Sumas.
 2. Analysis of existing and anticipated infiltration and inflow to the collection system.
 3. Determination of wastewater flow impacts from various industries including an existing cogeneration facility (“SCCLP” or “SE1”), an asphalt shingle mill, a dairy feed operation, a paper recycling mill, and a proposed second cogeneration facility which is the subject of this application.
 4. Determination of the total wastewater contract allocation that the City of Sumas would request from Abbotsford. An allotment of 79,000 gallons per day of cooling tower blowdown was specifically included in this contract total to accommodate the existing cogeneration plant. It was additionally recognized that the modulation of blowdown discharge rates might vary by 20% so that a maximum daily flow of 94,800 gpd could be intermittently expected.
 5. Assistance with sewer contract negotiations among the City of Abbotsford, the Fraser Valley Regional District, City of Sumas, and National Energy Systems for treatment and disposal of all Sumas wastewater in Canada. The negotiations included phase one and two contract allocations, phase two of which envisioned a paper recycling mill as a major potential sewer customer of the City of Sumas.
 6. Preparation of Engineering Report/Facility Plan of Sumas sewer system, precedent to upgrading four existing City pump stations and sending wastewater to Canada.
 7. Design and construction phase services for four pump station upgrades, force main to Canada and wastewater metering facilities.
 8. Continued coordination with City of Abbotsford regarding their construction projects and schedule for receipt of flows from Sumas.

As a result of the above-described activities, I am qualified to address the contractual and physical ability of the City of Sumas to provide sewer service to the proposed Sumas Energy 2 generation facility.

Q. What is your understanding of the capacity limits within Sumas’s sewage service agreement with Abbotsford and the FVRD?

- A. A contract for wastewater treatment and disposal among Abbotsford, FVRD, and the City of Sumas was successfully negotiated to accommodate the predicted flows for Sumas, and was in fact 24% higher than my calculations for the anticipated necessary average daily flow capacity. The contract allows the City of Sumas to currently send up to 295,500 U.S. gallons per day of wastewater from its combined domestic, commercial, and industrial customers. This total includes such anticipated, incidental infiltration and inflow (“I/I”) of groundwater and/or rainwater as is typically associated with gravity collection systems, and also includes the previously described 79,000 gpd

allotment for the existing cogen plant blowdown. The level of maximum permissible flow from all of Sumas may increase by 5,500 U.S. gallons per day per year up to a maximum of 400,000 U.S. gallons per day. The anniversary date for annual increases is December 1st of each year. By January 2001, the maximum amount of allowed daily flow from Sumas will be 301,000 gpd.

Q. What is your understanding of the sewer service commitment made to the proposed facility by the City of Sumas?

A. My understanding is that the City of Sumas has contractually committed the use of up to 80,000 gpd of the Abbotsford/FVRD/Sumas wastewater contract capacity to Sumas Cogeneration Company, L.P. (“SCCLP”) for disposal of industrial wastewater discharges (primarily cooling tower blowdown) associated with the existing phase one cogeneration facility. (Note that the previously-predicted 79,000 gpd is now contractually set at 80,000 gpd, and that this 1,000 gpd difference is insignificant with respect to the physical system and the Abbotsford/FVRD/Sumas agreement.) City of Sumas has recently informally indicated to representatives of SCCLP and Sumas Energy 2, Inc. that the “Contract Capacity” of 80,000 gpd may be shared among the existing Phase 1 generation plant and the proposed SE2 facility. In 1998, the City of Sumas and SCCLP upgraded the existing City pump stations to provide capacity for this 80,000 gpd commitment, and re-direct all Sumas flow toward Canada. The Sumas facility upgrades were completed in December 1998, and Sumas began to send a limited amount of flow to Canada at that point. Abbotsford subsequently completed improvements to its collection system in September, 1999, at which point it was able to accept the then-full contractual limit of 290,000 gpd from Sumas.

Q. Can the Sumas sewer system safely accommodate SE2 under the proposed terms?

A. I have reviewed the City of Sumas’ historical records and activities with respect to monitoring and reducing wet weather-induced peak wastewater flows. There are a very few days per year when the City may experience peak daily wastewater flows due to infiltration and inflow to the sewer system. These would typically be winter days during November to February. Quantities of cooling tower blowdown to be discharged to the sanitary sewer are significantly lower in the winter, so there is little risk of winter weather-induced peak flows overlapping periods of desired maximum blowdown discharge to the sewer. It is my professional opinion that the City of Sumas is able to contractually and physically accept the predicted 80,000 gpd of wastewater from either SE1 , SE2 or a combination of both.

If SE1 and/or SE2 were to inadvertently produce wastewater flows in excess of the maximum anticipated flow of 94,800 gpd through failure of planning, technology, or management, and if the excursion caused the total City flows to exceed the Abbotsford/FVRD contract amount, the consequences would probably be limited to a higher monetary charge per unit of flow imposed by Abbotsford and FVRD, as

envisioned by Section 4.1 (c) of the contract. The Sumas sewer collection system has incidental excess storage and pumping capabilities which would contain temporary flow excursions in excess of 80,000 gpd from the two plants. The cogen industrial discharge rate could conceivably double for more than an hour before there would be a capacity crisis at Pump Station No. 3. Such an incident would cause a high level alarm to be registered at Pump Station No. 3, which would receive immediate City operator and SCCLP attention with sufficient time to prevent any overflow.

END OF TESTIMONY

I declare under penalty of perjury under the laws of the State of Washington that the foregoing testimony is true and correct to the best of my knowledge.

DATED this ____ day of June 2000 at Bellingham, Washington.

Margaret Curtis