

May 19, 2010

Mr. Dale Meyers Department of Ecology 3190 160<sup>th</sup> Avenue SE Bellevue, Washington 98008

Subject:

Request for Non-Potable Water Determination LeatherCare Inc. 901 Elliott Avenue W Seattle, Washington VCP No. NW1805

Dear Mr. Meyers:

This letter presents the results of Camp Dresser & McKee Inc.'s (CDM) evaluation of the potability of groundwater at the LeatherCare site located on Elliott Avenue in Seattle, Washington (Site). This evaluation was completed to support our request for a non-potable water determination for the Site.

Currently, the Model Toxics Control Act (MTCA) Method A cleanup levels are being applied to groundwater at the site. Method A cleanup levels are intended to "provide conservative cleanup levels for drinking water beneficial use at sites with relatively few hazardous substances." MTCA specifies that exceedances of the Method A levels "do not necessarily mean the ground water must be restored to those levels at all sites."

WAC 173-340-720 (2) provides the standards determining whether a groundwater source is not potable. It is CDM's opinion that based on these standards, groundwater underlying the LeatherCare site area does not meet the definition of a potable source. Our reasoning is presented below by the specific elements listed in WAC 173-340-720(2) — Potable Groundwater Defined. The specific requirements are presented in italics and our response is presented below each requirement.

a) The ground water does not serve as a current source of drinking water.

On January 21, CDM conducted an online search of water well logs filed with the Department of Ecology. In this specific database, there are 170 entries for Township 25N, Range 3E, and Section 25. LeatherCare is nearly centrally located within this section. All 170 of the entries



Mr. Dale Meyers May 19, 2010 Page 2

are dewatering wells. Of these, 160 are dewatering wells registered under Martin Selig Real Estate and are for the completed Elliot Holding 635 Elliott Avenue construction project next to LeatherCare. Six dewatering wells are registered under the Port of Seattle for a construction project on Denny Way. Three dewatering wells are registered under Selig Real Estate Holdings LLC for 333 Elliott Avenue. The last dewatering well is registered under Venture Construction, address unknown. There are no domestic wells in Section 25. Dewatering wells are not wells that produce water for consumption, irrigation, or commercial purposes. Therefore, there are no wells at least within a half mile of the site (and likely within several miles) that serve as a drinking water source.

- *b)* The ground water is not a potential future source of drinking water for any of the following reasons (paraphrased)
  - i) Production of insufficient quantity
  - *ii)* Contains natural background concentrations of organic or inorganic constituents that make the use of water as a drinking water source impracticable.
  - *iii)* The groundwater is very deep and impracticable to access

Conditions i) and iii) do not apply, although the production of groundwater within upper zone would be insufficient to supply any public water system. Without substantial treatment, this water would not be suitable as a drinking water supply. It has no protection from surface contaminants (i.e., coliform and other microorganisms, and ordinary contaminants from road runoff), as a result of surface water infiltration. This is evidenced by the significant seasonal changes in groundwater temperature and proximity to the ground surface (less than 1 foot in some areas).

Groundwater at the Site will also never be a potential future source of potable water for the following reasons:

1) Any public entity considering this groundwater for a public water supply would disregard it for further consideration because of its generally poor quality, insufficient quantity, and insufficient protection from contaminant sources. Additional discussion on this is presented below.



Mr. Dale Meyers May 19, 2010 Page 3

- Any private entity considering this groundwater for its own use would be prohibited from doing so because the area is serviced by a public water supply and RCW 70.116.040 prohibits installation of new water systems unless the purveyor for that area is unable to provide water service.
- *c)* The department determines it is unlikely that hazardous substances will be transported from the contaminated groundwater to a current or potential future source of drinking water....

As demonstrated above, there are currently no, and unlikely to exist in the future, municipal, industrial, domestic, or irrigation wells anywhere within the vicinity of this site (i.e., greater than 0.5 mile). If the local purveyor (SPU) were to develop groundwater supply downgradient of the site (again, highly unlikely) there are two aquifers that likely exist under the site. One is a sea level aquifer that occurs at approximately 100 feet below sea level, and the second is a deeper aquifer considered (conceptually) in a recent regional water supply plan for Cascade Water Alliance, that exists around 300 feet below sea level (see attached Draft Regional Deep Aquifer Supply description prepared for the 2010 Cascade Water Alliance Regional Supply Plan). Due to the close connection of salt water, the sea level aquifer would unlikely be considered for potable supply.

d) Even if ground water is classified as a potential future source of drinking water under (b) of this subsection, the department recognizes that there may be sites where there is an extremely low probability that the ground water will be used for that purpose because of the site's proximity to surface water that is not suitable as a domestic water supply...

The intent of this clause is to exclude areas near Puget Sound and other marine waters from being considered as potential future sources of drinking water.

*i)* The conditions specified in *a*) and *c*) are met

The conditions are met as described above.

ii) There are known or projected points of entry into surface water

LeatherCare is within approximately 650 feet of Elliott Bay and there is no hydraulic barrier between the surface water in Elliott Bay and the shallow groundwater at LeatherCare. In fact, having previously been part of the tideflats of Elliot Bay, the connection between the two will be direct.



Mr. Dale Meyers May 19, 2010 Page 4

*iii)* The surface water is not classified as a suitable domestic water supply source under chapter 173-201A.

Elliott Bay is a marine water, and as such it is not suitable as a domestic water supply. Criteria applicable for Elliott Bay are based on protection of aquatic life.

*iv)* The groundwater is sufficiently hydraulically connected to the surface water that the groundwater is not practicable to use as a drinking water source.

Any significant pumping of groundwater from the first zone of groundwater would either completely dewater the area or would draw in the saline water from Elliott Bay. Public records show that recent construction projects in the area set up impermeable shoring systems to avoid dewatering the shallow groundwater and causing subsidence to infrastructure, like Elliott Avenue and Burlington Northern railroad tracks.

CDM on behalf of LeatherCare respectfully requests Ecology's determination that groundwater at LeatherCare is not a potable source. Please feel free to call if you have any questions.

Very truly yours,

Pamela J. Morrill, LHG Senior Project Manager Camp Dresser & McKee Inc.

cc: Ms. Jo Flannery, Ryan, Swanson & Cleveland, PLLC Mr. Steve Ritt, LeatherCare, Inc.

