STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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February 24, 2017

Ms. Karen Ryan
Rykar Investments, Inc.
4726 Lakewood Road
Stanwood, WA 98292

Re: No Further Action at the Following Site:

- **Site Name:** Lake Goodwin Store 2013
- **Site Address:** 4726 Lakewood Road, Stanwood, WA 98292
- **Facility/Site No.:** 12889948
- **Cleanup Site ID No.:** 12352
- **VCP No.:** NW2974

Dear Ms. Ryan:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Lake Goodwin Store 2013 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline-range petroleum hydrocarbons (TPHg) and associated benzene, toluene, ethylbenzene, and xylenes (BTEX) to Soil and Ground Water.

Enclosure A includes a detailed description and diagrams of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel associated with this Site is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Slotta Design & Consulting (SD&C), *Response to Ecology's Opinion Pursuant to WAC 173-340-515(5) on Remedial Action for the Following Hazardous Waste Site*, October 24, 2016.

2. Department of Ecology, *Opinion Pursuant to WAC 173-340-515(5) on Remedial Action for the Lake Goodwin Store 2013*, February 23, 2016.

3. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #4 – 2015*, January 12, 2016.

4. SD&C, *Soil Excavation and Remediation Report*, October 13, 2015.

5. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #3 – 2015*, October 12, 2015.

6. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #2 – 2015*, July 1, 2015.

7. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #1 – 2015*, April 9, 2015.

8. Department of Ecology, *Early Notice Letter, Facility Site #12889948, Lake Goodwin Store 2013 Property*, February 27, 2015.

9. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #4 – 2014*, January 7, 2015.

10. SD&C, *Quarterly Groundwater and Treatment System Monitoring Report Quarter #3 – 2014*, September 3, 2014.

11. SD&C, *Work Plan – Gasoline Spill Lake Goodwin Grocery*, June 17, 2014.

12. Department of Ecology, *Initial Investigation Field Report, ERTS Number 645857, Lake Goodwin Store 2013*, April 1, 2014.

13. SD&C, *Underground Storage Tank Site Check/Site Assessment Checklist, Lake Goodwin Store, Stanwood, WA*, March 6, 2014.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at 425.649.7235 or sending an e-mail to nwro_public_request@ecy.wa.gov.

Analysis of the Cleanup

Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A.**

The lateral and vertical extent of petroleum-impacted soil and ground water have been adequately defined upon completion of several investigations and cleanup actions conducted from 2014 through 2016. Soil analytical results of confirmation samples were below MTCA Method A cleanup levels. Analytical results from ground water samples collected from Site monitoring wells and probes were also below Method A cleanup levels.

2. Establishment of cleanup standards.

Ecology has determined that cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Soil

Cleanup Levels: The Site does not meet the MTCA definition of an industrial property; therefore, soil cleanup levels suitable for unrestricted land use are appropriate. Soil cleanup levels based on leaching (protection of ground water), and protection of direct contact are appropriate. The MTCA Method A cleanup levels for TPHg and BTEX are

considered appropriate for soil at the Site and are protective of human health and the environment.

Soil cleanup levels protective of terrestrial ecological receptors are not necessary because the Site meets the Simplified Terrestrial Ecological Evaluation (TEE) criteria (MTCA WAC 173-340-7492). The results of the TEE Exposure Analysis Procedure worksheet indicated that the Simplified TEE evaluation could be ended and that protective cleanup levels based on TEE factors are not required for this Site.

Point of Compliance: For soil cleanup levels based on the protection of ground water, the point of compliance is defined as Site-wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.

Ground Water

Cleanup Levels: MTCA Method A cleanup levels for TPHg and BTEX are the applicable ground water cleanup levels for this Site.

Point of Compliance: The standard point of compliance for ground water is throughout the Site, from the uppermost level of the saturated zone extending vertically to the lowest depth that could potentially be affected.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The cleanup selected consisted of removal of free product floating on ground water; treatment of pumped contaminated ground water with an in-well air sparging system followed by filtration through activated carbon; excavation and off-Site removal of petroleum-impacted soil; and monitoring of ground water in Site monitoring wells and pumping well PW-1, until results below MTCA Method A cleanup levels had been confirmed. The selected cleanup action meets applicable minimum requirements for cleanup actions stipulated in WAC 173-340-360: protect human health and the environment, comply with cleanup standards, use permanent solutions, and provide for reasonable restoration times.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

Pursuant to the UST system overfill on September 11, 2013, 18 inches of floating product was discovered in pumping well PW-1, a shallow well installed during UST system construction to depress the water table. Approximately 150 gallons of product and water was removed from the well and disposed off-Site. The discharge from PW-1 was re-routed through a pre-existing activated carbon filtration system (used during a previous site cleanup), prior to flowing into the grassy swale south of the gasoline station.

In March 2014, approximately 39 tons of petroleum-contaminated soil were removed from the area south of the gasoline station, where the spilled gasoline had flowed and contaminated ground water from well PW-1 had subsequently been discharged. Follow-up soil and ground water sampling completed in September 2016 confirmed concentrations of TPHg and BTEX below Method A cleanup levels in this area of the Site.

Quarterly ground water monitoring conducted from August 2014 through December 2015 in on-Site monitoring wells MW-4, MW-5, MW-6, and well PW-1 confirmed concentrations of TPHg and BTEX below Method A ground water cleanup levels.

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from our Confirmed and Suspected Contaminated Sites List and Leaking Underground Storage Tank List.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion does not:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. **Opinion does not constitute a determination of substantial equivalence.**

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. **State is immune from liability.**

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#NW2974).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 425-649-7257 or e-mail at michael.warfel@ecy.wa.gov.

Sincerely,

Michael R. Warfel

Michael R. Warfel, Site Manager
Toxics Cleanup Program, NWRO

Enclosure (1): A – Description and Diagrams of the Site

By Certified Mail: [9171 9690 0935 0132 1877 82]

cc: Tim Slotta, SD&C
Barry Ziker, Joyce Ziker Parkinson
Sonia Fernández, VCP Coordinator, Ecology NWRO
Matt Alexander, VCP Financial Manager, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

Site: The Site is defined by the release of gasoline-range petroleum hydrocarbons (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX) to soil and ground water, associated with a spill that occurred during refueling of two underground storage tanks (USTs) at an operating gasoline station. The Site is located at 4726 Lakewood Road in Stanwood, Washington (the Property), as shown on **Figure 1**.

Area and Property Description: The Property corresponds to Snohomish County parcel number 00489600009100, which is 6.79 acres in size. In addition to the gasoline station, the Property is occupied by a convenience store, a recreational vehicle (RV) park, and rental cabins (**Figure 2**). The Property is bounded by residential development to the west and northwest, undeveloped land to the northeast, Lake Goodwin Park to the east, and the Lake Goodwin shoreline to the south.

Property History and Current Use: The Property was first developed with a grocery store and gasoline station in 1926. Two previous release areas were identified at the Property prior to the 2013 release. The first release was identified in 2007 and was related to an historic dispenser island located at the northwest corner of the existing grocery store building. The second release occurred in April 2008 along the perimeter of the existing UST system footprint. Impacts to the Property from these releases were remediated and a No Further Action opinion letter was issued by Ecology in March 2013. The two gasoline USTs (capacities of 12,000 and 8,000 gallons) currently in use were installed in 1998 and are located on the west side of the grocery store (**Figure 3**).

Contaminant Source and History: A third release of gasoline to the paved surface near the pump island occurred on December 11, 2013. The specific point of the release was the northernmost fill port of the present USTs, and was caused by overfilling of the UST system (described below in detail, in "Release and Extent of Soil and Ground Water Contamination." The release, estimated to be 500 gallons of gasoline, is the source of contamination on the Site.

Physiographic Setting: The Property is located in the Puget Sound Lowland physiographic province at an elevation of approximately 330 feet above mean sea level. The Property is relatively flat and slopes gradually to the south toward Lake Goodwin. However, the grassy area south of the USTs includes a septic system leach field that is mounded several feet above the ground surface.

Surface/Storm Water System: Lake Goodwin is located approximately 700 feet south of the point of the release, at the south boundary of the Property. In the vicinity of the Site, storm water flows over the asphalt surface toward the grassy area south of the gasoline station, then overland towards a swale that drains to Lake Goodwin (see **Figure 2**).

Ecological Setting: The Property includes asphalt, gravel, grass lawns, trees, and shrubs. The Property is bordered to the east by Lake Goodwin Park – a 14.26-acre park with a mix of trees, shrubs, grass, and the lake shoreline.

Geology: The Property is mapped as glacial recessional outwash deposits that include moderately to poorly sorted gravel and sand with some silt and clay. Silty fine to coarse sand was encountered in the upper three to four feet during previous investigations. The silty sand is underlain by 6 to 7 feet of fine to coarse silt with gravel (weathered glacial till). Glacial till was encountered at approximately 10 feet below ground surface (bgs).

Ground Water: The depth to ground water on the Site is within 1 to 4 bgs. Ground water elevation data from Site monitoring wells indicates a primary flow direction to the northeast and an average gradient of 0.006 feet per foot (**Figure 4**). Local factors that influence ground water flow direction and gradient include on-Site pumping well PW-1, a mounded septic system located southeast of PW-1 that serves the convenience store and the trailer park, a County surface water diversion drain, a fiber-optic utility conduit, and a water main (see **Figures 2 and 3**). Prior to completing water-level measurements and collecting water samples from pumping well PW-1, the air sparge system and sump pump were shut off and the well was allowed to stabilize for a period of at least 15 minutes.

Well PW-1, located in the northwest corner of the service station area (Figure 3), was reportedly installed during construction of the present service station in 1998, to regulate the shallow ground water levels during installation of the UST system. Pumping of this well has continued after 1998 to prevent periodic rises in shallow ground water from flooding the service station property. This well is 12 inches in diameter and equipped with a sump pump that is actuated by a float switch and runs intermittently. Discharge from PW-1 is routed through a garden hose to the grassy swale south of the service station. Estimates of the intermittent discharge, based on field observations, indicate an average discharge rate of approximately 10 gpm and a daily discharge volume on the order of 5,000 gallons.

Water Supply: The nearest drinking water well is located on the north adjacent Property (4727 Lakewood Road), approximately 1,300 feet north of the Site, and is screened from 172 feet bgs to 177 feet bgs. A municipal well (Well 5) formerly operated by Seven Lakes Water Association is located approximately 800 feet west of the Site. An updated water well inventory completed in 2016 discovered that this well is not currently in use and is planned for decommissioning, according to the Water Association.

Release and Extent of Soil and Ground Water Contamination: Ecology UST records show a December 10, 2013 Notice of Non Compliance issued for failure of the Lake Goodwin Store gasoline station to provide a properly calibrated spill and/or overfill prevention equipment on a new UST system. On December 11, 2013, a release of gasoline occurred during a fuel delivery by the Harris Transportation Company. The release was not reported to Ecology by the fueling company.

On December 12, the Property owner identified a strong gasoline odor in the fueling area. Upon contacting the fueling company, the Property owner was informed that approximately 25 gallons of gasoline were spilled when one of the tanks was overfilled during refueling. The surveillance camera footage showed the overflow event and the spill migrating toward the southern edge of the fence line, beyond which is the grassy swale area. The fueling company driver placed cat litter that had to be procured from the convenience store onto the spill, which according to the camera footage was then swept by the fuel company driver into the adjacent grassy area south of the USTs.

According to the surveillance camera footage, the estimated time over which the release occurred was 2.5 minutes. The fueling company stated that their fuel truck pumps transfer gasoline at a rate of approximately 25 gpm. However, information later gained from fuel distribution technical sources indicated a greater likely flow rate, on the order of 100 gpm. Therefore, the total volume of the release was estimated at 500 gallons.

The fueling company's emergency response contractor reportedly (based on a conversation with the owner on 8/4/13) removed approximately one drum of impacted soil, presumably from the grassy swale. An initial assessment of Site conditions by the property owner's consultant was completed on December 19, 2013, at which time approximately 18 inches of light non-aqueous phase liquid (LNAPL) was measured in well PW-1. Approximately 150 gallons of LNAPL and water were pumped out of PW-1 and transported off-Property for disposal, after which the discharge from PW-1 was retrofitted to discharge through an on-Site treatment system. This system consisted of two activated carbon drums and was used during a prior remedial action at the Site.

A dissolved-phase gasoline plume at concentrations exceeding MTCA Method A ground water cleanup levels was detected in all monitoring wells (MW-4 through MW-6) when they were sampled on December 19, 2013 (**Figure 5**). TPHg was confirmed at concentrations above MTCA Method A cleanup levels in soil at locations FS1 and FS2, which were located adjacent to the fence between the asphalt and grassy swale (see **Figure 2**).

On March 5 and 6, 2014, approximately 39 tons of contaminated soil were removed from an 800 square-foot area, partially in the grassy area just south of the fence and partially beneath the asphalt north of the fence. Confirmation soil samples FS3, FS4 and FS5 were collected from within the excavation area but do not appear to have been appropriately placed to demonstrate that all contaminated soil was removed (see **Figure 2**). Backfill material consisted of 18.46 tons of ¾ inch washed rock.

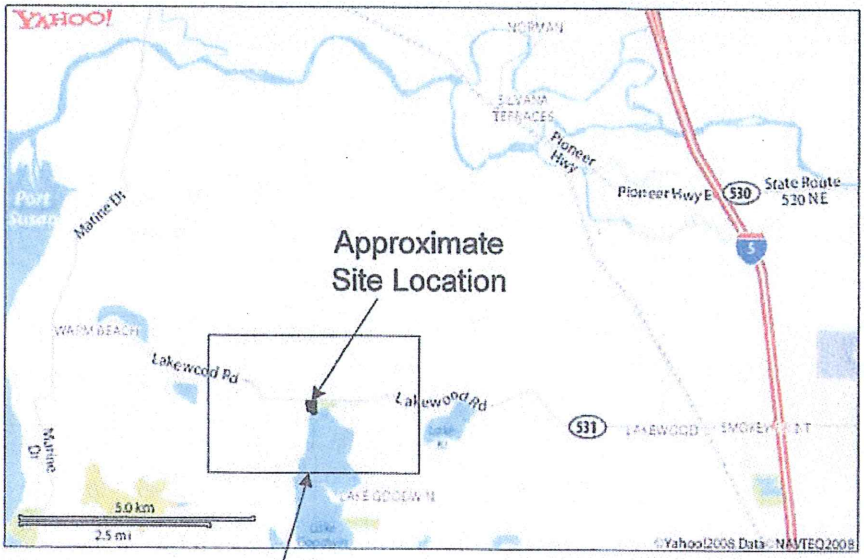
Three confirmation soil borings were drilled at the Site on September 9, 2016, in the area of the grassy swale south of the gasoline station, to assess potential residual soil and ground water impacts from well PW-1 discharges subsequent to the release (**Figure 6**). Soil samples were collected from each boring at a depth of 4 feet bgs (above the ground water level observed at the

time of drilling), followed by collection of ground water probe samples above the total boring depths of 9 feet bgs. None of these soil or ground water samples contained TPHg or BTEX at concentrations greater than MTCA Method A cleanup levels. These sampling results resolve the issue raised in the April 1, 2014 Ecology opinion letter regarding potential residual soil impacts from the gasoline spill.

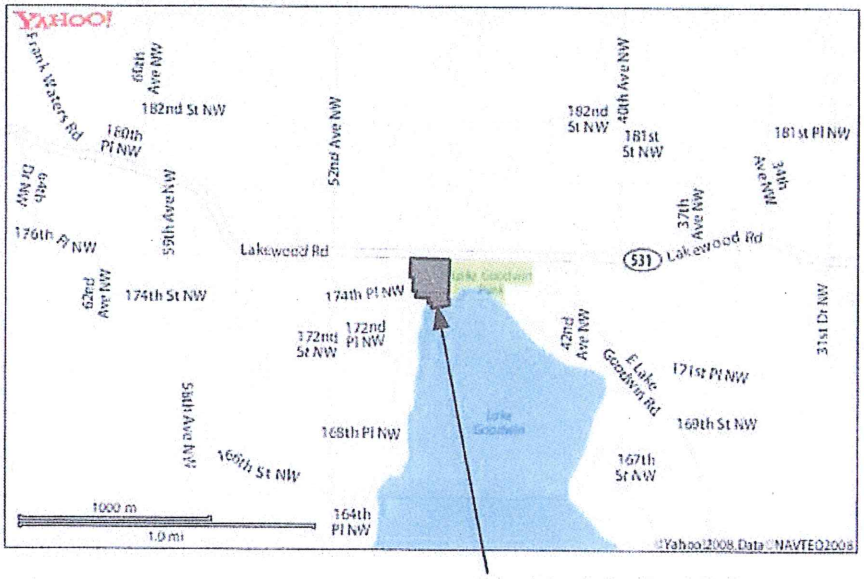
Quarterly ground water monitoring was conducted at the Site from August 2014 through December 2015 (six quarterly events). TPHg and BTEX have been below MTCA Method A cleanup levels in monitoring wells MW-4 through MW-6 during all of these events, and in PW-1 for the last four quarterly monitoring events. Samples of discharge water from the carbon treatment system associated with pumping well PW-1 (sampling stations DIS-1 and DIS-2; **see Figure 3**) also showed concentrations of TPHg and BTEX below Method A cleanup levels during seven quarterly monitoring events conducted between January 2014 and December 2015.

An air sparge system was connected to well PW-1 in March 2014, consisting of a blower and piping that extended to the bottom of the well. This combined air-sparge carbon-treatment system has been in operation at the Site since that time as a precautionary measure.

Site Diagrams



Area enlarged below

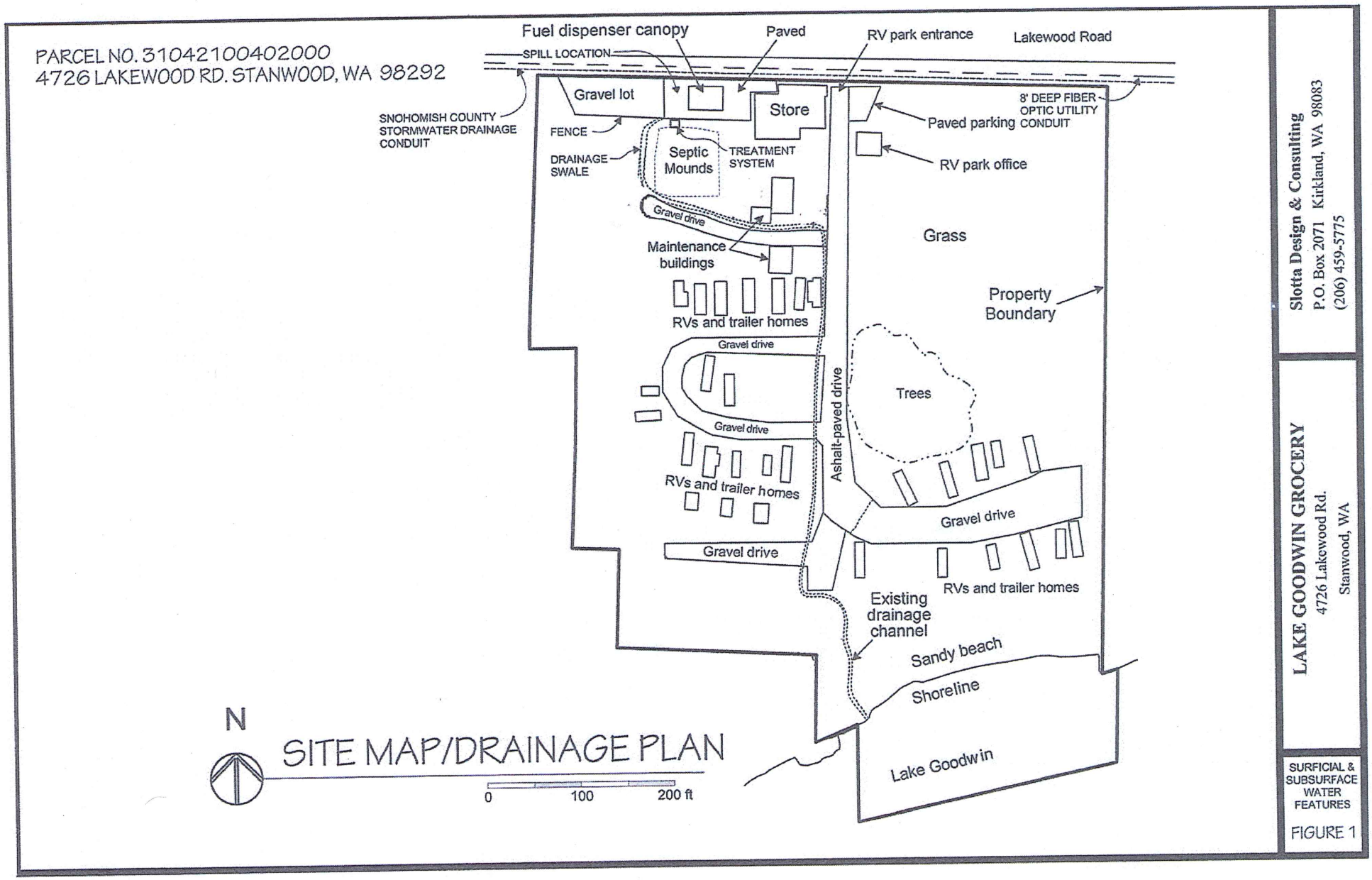


Lake Goodwin Gas Station
and RV Resort
4726 Lakewood Road
Stanwood, WA 98292

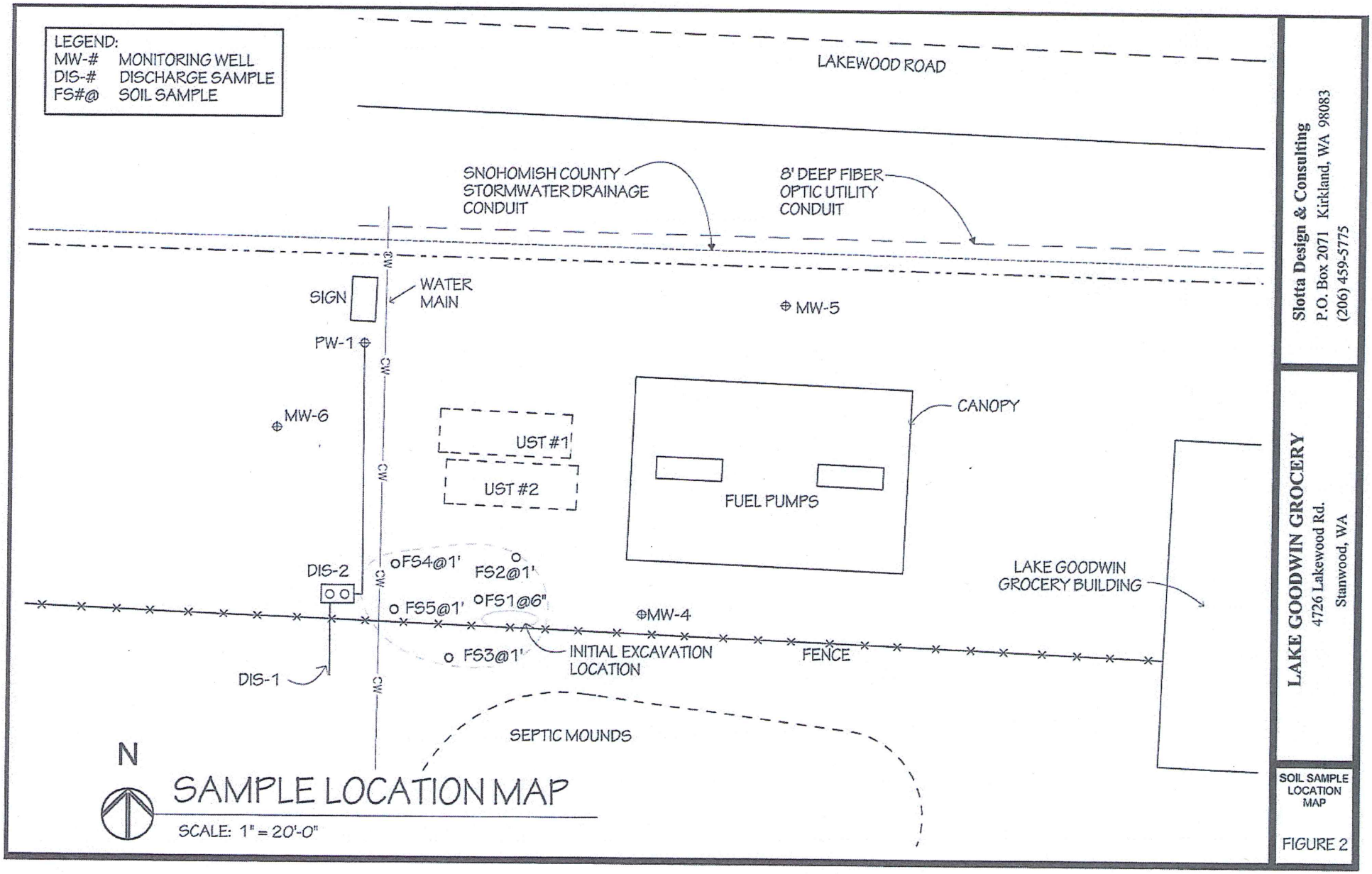
Enclosure A, Figure 1

SD&C

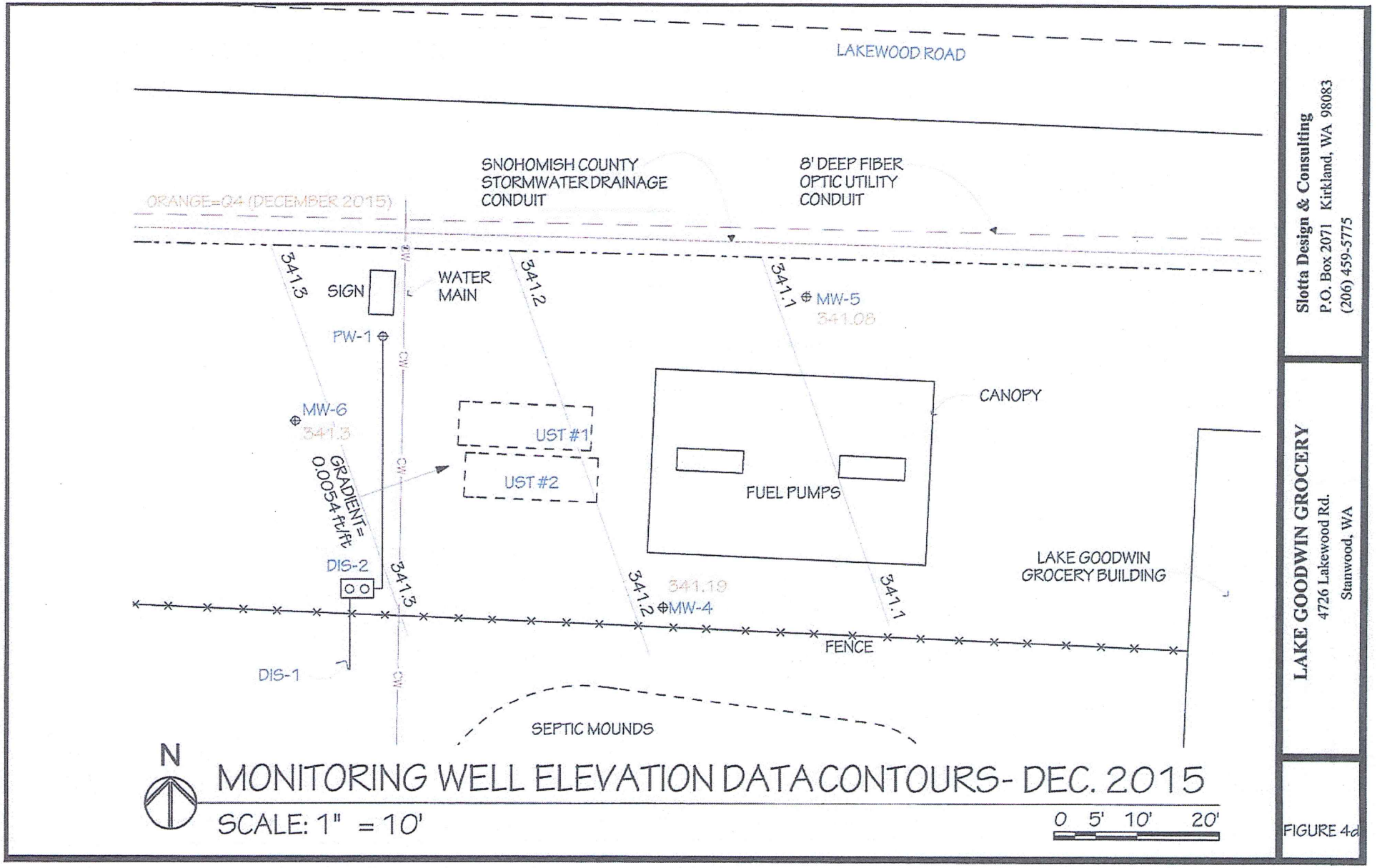
Figure 1. Site Location Maps



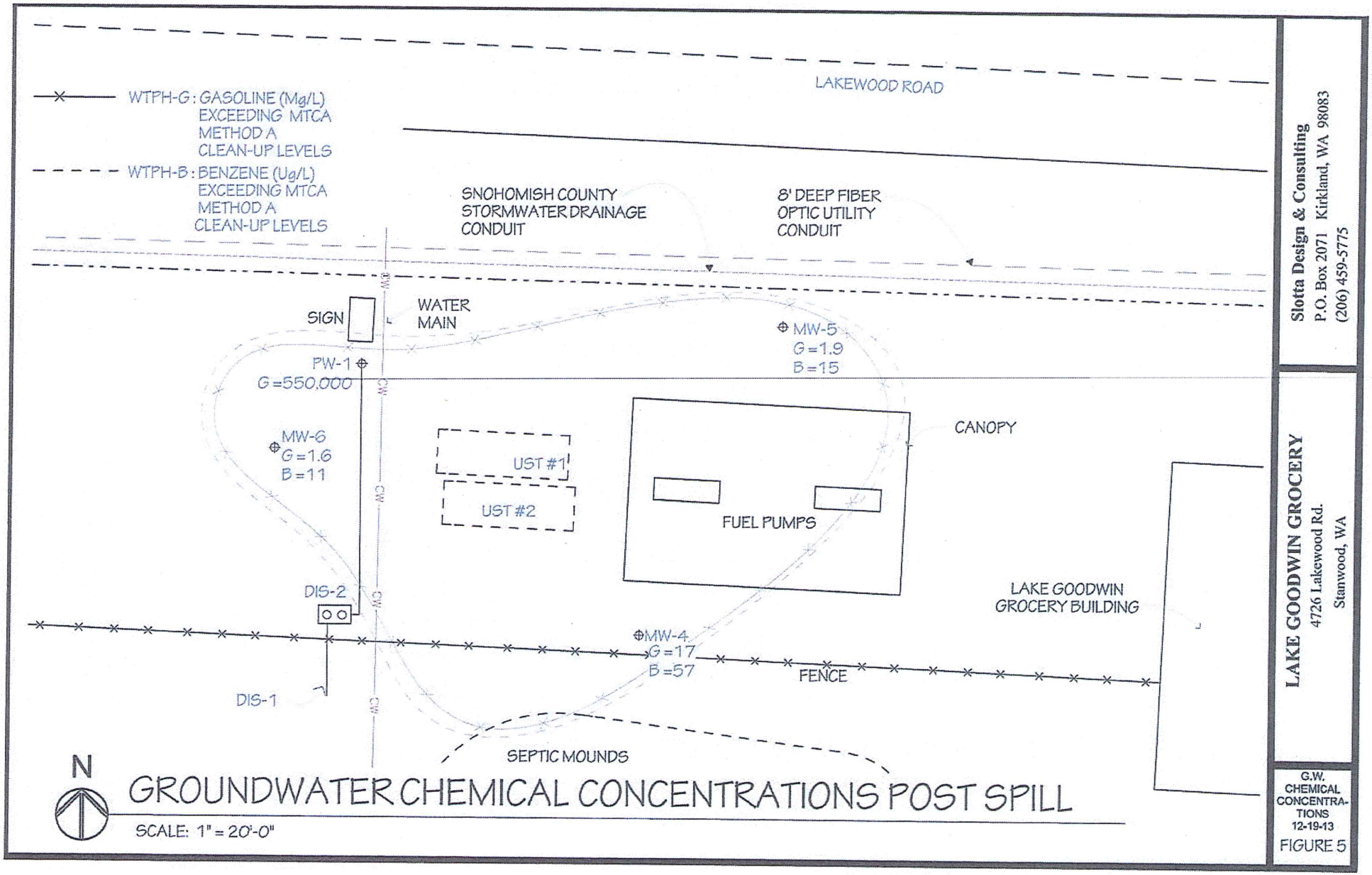
Enclosure A, Figure 2



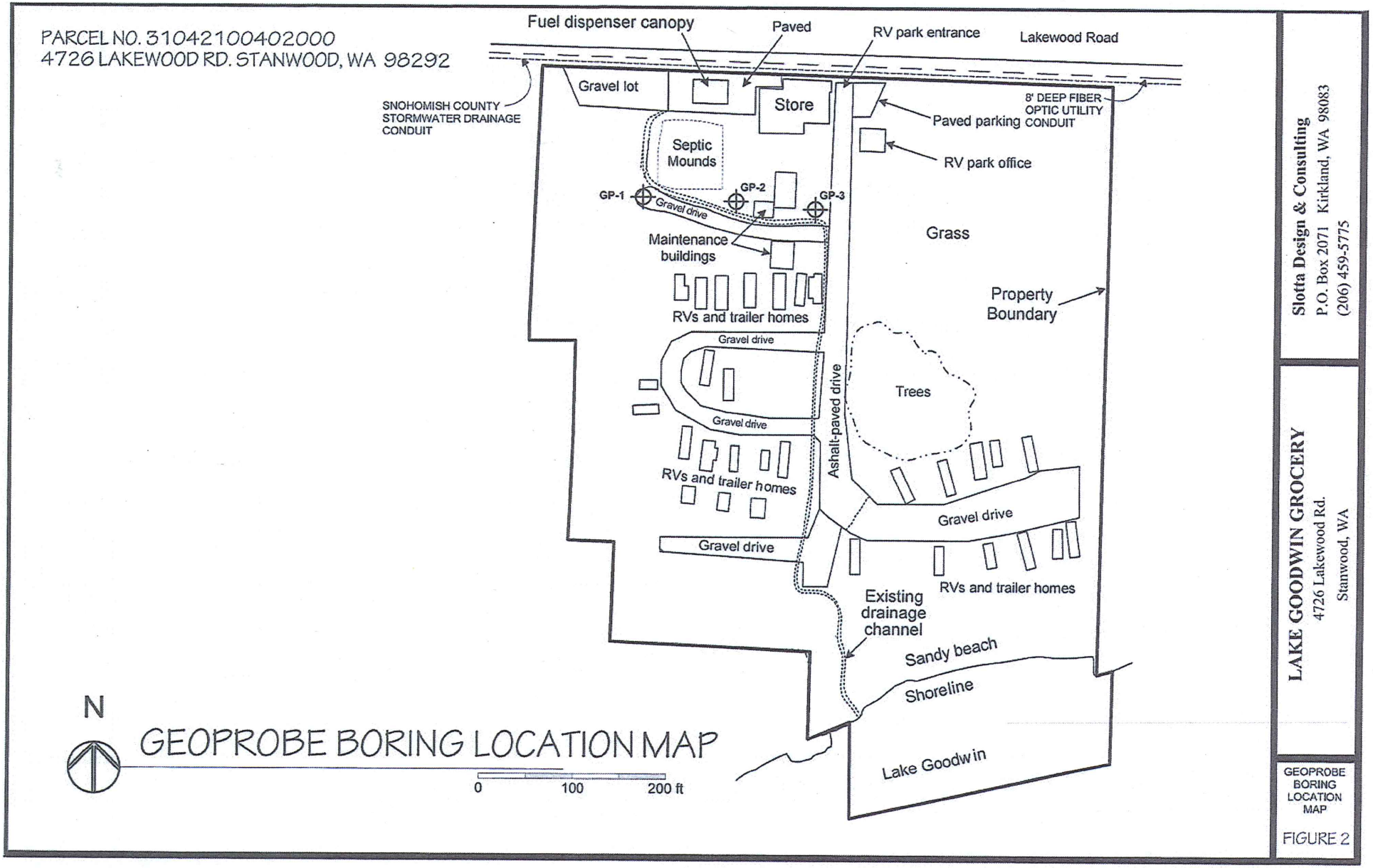
Enclosure A, Figure 3



Enclosure A, Figure 4



Enclosure A, Figure 5



Enclosure A, Figure 6