



PERIODIC REVIEW

**Landmark Care Center
Facility/Site ID # 93321516**

**710 North 39th Avenue
Yakima, Washington 98902**

Central Region Office

TOXICS CLEANUP PROGRAM

February 2010

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1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to ensure that human health and the environment are being protected at the Landmark Care Center site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of metals in soil exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action
- Whenever the department approves a cleanup action under an order, agreed order or consent decree
- Or, as resources permit, whenever the department issues a no further action opinion,
- And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup
 - (b) Where the cleanup level is based on a practical quantitation limit
 - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions;
- (b) New scientific information for individual hazardous substances or mixtures present at the Site;
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected Site use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Landmark Care Center Site is located in the City of Yakima, Yakima County, Washington. The Site consists of approximately 3.52 acres adjacent to North 39th Avenue between Englewood Avenue and Kern Road. A site plan is available as Appendix 6.1 and a vicinity map is available as Appendix 6.2. Following remedial activities that took place between 1997 and 1998, the Site received a No Further Action determination.

The Landmark Care Center site was historically part of an orchard from sometime before 1939 to sometime after 1977. Prior to remediation and construction activities, there were no historical structures on the subject site. Orchard trees had been removed from the Site and the Site was overgrown with grasses, weeds, and small shrubs native to the area prior to remediation and construction activities.

2.2 Site Investigations

In November 1994, Hyattcenters-Landmark retained Northwest Envirocon, Inc. to conduct a Phase I Environmental Site Assessment of the Site. Historical research indicated that the Site had been operated as an orchard for approximately 40 years. The research indicated that the Site contained orchard trees not agricultural-related buildings or material storage areas. As part of the Phase I investigation Northwest Envirocon, Inc. collected soil samples to be analyzed for lead, arsenic, and organic pesticide concentrations. Analytical results identified residual lead, arsenic, and dichlorodiphenyltrichloroethane (DDT) associated with historic orchard use.

In June 1996, Hyattcenters-Landmark, Inc. retained Fulcrum Environmental Consulting, Inc, (Fulcrum) to assist in development of a plan for on-site management of soil to be impacted by development and long term use of the Site. In September 1996, Fulcrum conducted site sampling. Samples were collected at two and four feet below ground surface (bgs).

The conclusion of site investigations was that contaminant concentrations decrease with depth. Surface contamination is present to a depth of 1 to 4 feet bgs across the majority of the site. Two sample locations were found to have concentrations of arsenic greater than remedial threshold levels at 4 feet bgs. Additional sampling at these locations indicated that arsenic concentrations were below remedial threshold at 6 feet bgs.

In November 1997, agriculturally impacted soil from the Chandler House site located directly east (across 39th Avenue) of the subject site was stockpiled on the Landmark Care Center Site. The Chandler House Site was originally part of the same orchard and was being developed by the same property owner as the Landmark Site. During Chandler House construction, it was determined that site soils would be relocated off-site in order for driveway and parking elevations to be within acceptable parameters. As a result, 600 to 700 cubic yards of predominately native material were relocated from the Chandler House Site to the Landmark

Care Center Site. This soil was accommodated within Landmark Care Center site grading plans and handled the same as on-site near surface impacted soil.

2.3 Remedial Activities

For this Site Fulcrum determined that management of impacted media on-site would be the most appropriate remedial action. This remedial option was preferred over other options because impacted media was pervasive across the entire site and excavation and disposal would have subjected the Owner to costs disproportionate to the net environmental benefit.

All media suspected of having residual concentrations of agricultural chemicals could be effectively used on-site for fill material. Preliminary investigations on behalf of the Owner indicated that site soil should be suitable for compaction. Considering probable duration of historical application of chemicals at this site (~1930 - 1970), observed depth of maximum downward migration of residual chemicals is consistent with predicted low leachability of metals in soil. Given the low mobility of chemicals and the distance to groundwater at this site, managing soils onsite will effectively prevent groundwater impact.

At completion of site grading and construction, soils not covered by impermeable capping material (asphalt or building footprint) were capped with clean topsoil and vegetation or landscaping. Confirmation of remediation was verified by sampling of surface capping material. Post-remediation arsenic analysis documented one area in the upper 6 inches above the selected remedial threshold. Post-remediation arsenic statistical analysis had a mean site value of 7.42 milligrams per kilogram (mg/kg), a range of 2.2 to 29.5 mg/kg, and an upper confidence level of 9.73 mg/kg.

2.4 Regulatory Status

A No Further Action determination was issued for the Site in 2000, following remedial actions at the Site. The No Further Action determination was contingent on the implementation of institutional controls in the form of a Restrictive Covenant. A Restrictive Covenant was not recorded for the Site. In 2002, Ecology sent Hyattcenters – Landmark, Inc. a notice letter indicating that further action would be required at the Site without the implementation of institutional controls.

A Restrictive Covenant was not recorded for the Site, so the no further action determination was rescinded in February 2010. The regulatory status for the Site has been changed to reflect the requirement for additional remedial actions.

If a Restrictive Covenant is recorded for the Site (now referred to as an Environmental Covenant), the property owner may enter the VCP to request a no further action determination.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Clean soil, asphalt, and building structures continue to serve as a cap for the Site and eliminate the direct exposure pathways (ingestion, inhalation and contact) to contaminated soils. Based upon the site visit conducted on February 9, 2010, the Site surface remains in excellent condition. No repair, maintenance, or contingency actions have been required. A photo log is available as Appendix 6.3.

The Restrictive Covenant for the Site was never recorded. A Restrictive Covenant is required to prohibit activities that will result in the release of contaminants contained as part of the cleanup. A Restrictive Covenant would serve to assure the long term integrity of the remedial action.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new pertinent scientific information for the contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the site was governed by Chapter 173-340 WAC (1996 ed.). WAC 173-340-702(12) (c) [2001 ed.] provides that,

“A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment.”

Contamination remains at the Site above MTCA Method A cleanup levels.

3.4 Current and projected Site use

The Site is currently used for commercial and residential purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances. This remedy would be protective of human health and the environment if institutional controls in the form of an environmental covenant were implemented at the Site. Without the implementation of

institutional controls, additional remedial actions will be required at the Site to remove soil contamination remaining at concentrations exceeding MTCA Method A cleanup levels.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection well below MTCA Method A cleanup levels. The presence of improved analytical techniques would not effect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- Soils cleanup levels have not been met at the Site.
- A Restrictive Covenant was required as part of the remedial action at the Site. Without the use of a Restrictive Covenant, the remedy fails to be protective of human health and the environment.

Based on this periodic review, the Department of Ecology has determined that the remedy for the site fails to be protective of human health and the environment. If a Restrictive Covenant is recorded for the Site, the property owner may enter the VCP and request a no further action determination. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the cap is maintained.

5.0 REFERENCES

Fulcrum Environmental Consulting, Inc. *Report of Voluntary Remedial Action*.
February 11, 2000.

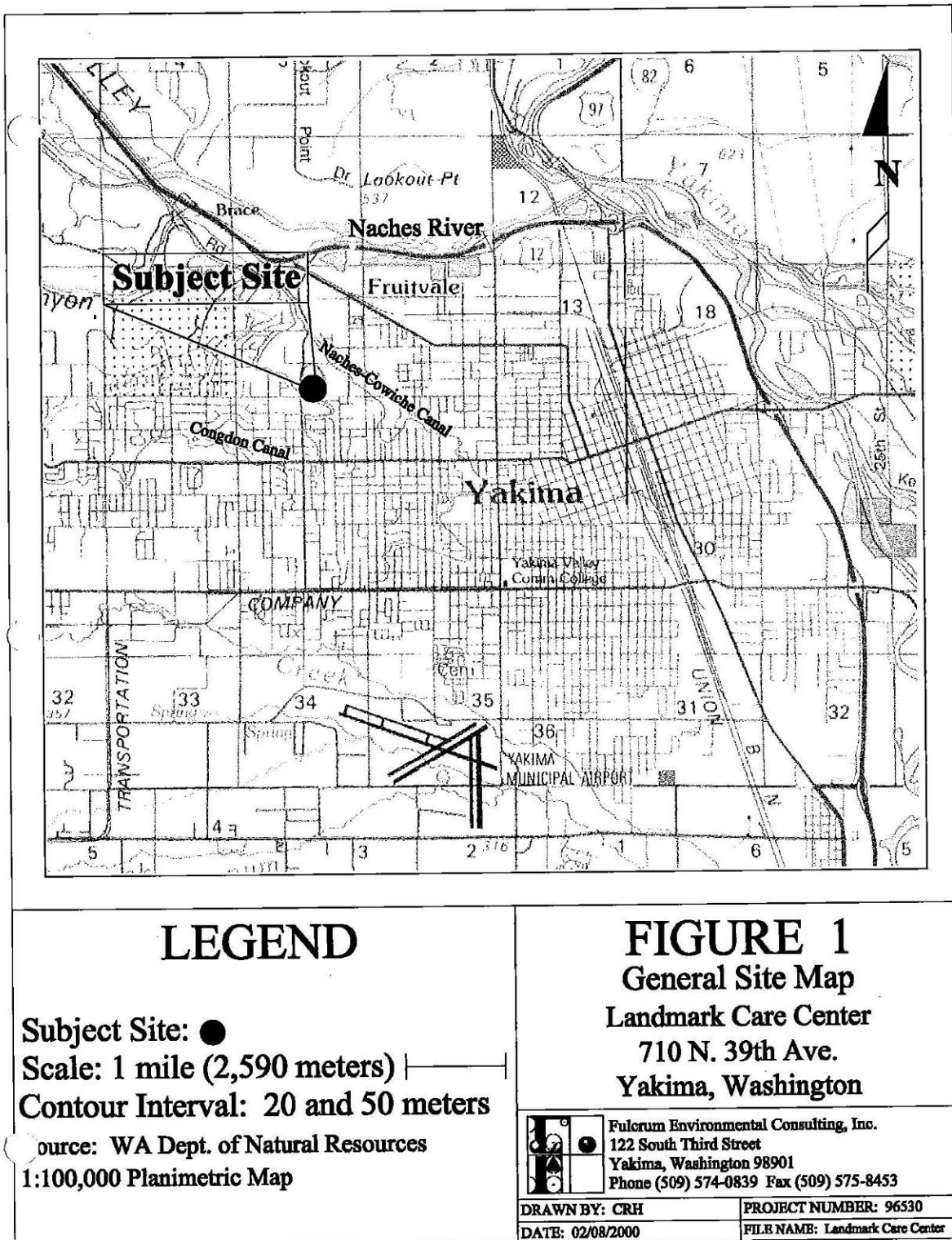
Ecology. *No Further Action Letter*. May 30, 2000.

Ecology. *Conditional No Further Action Determination*. September 26, 2002.

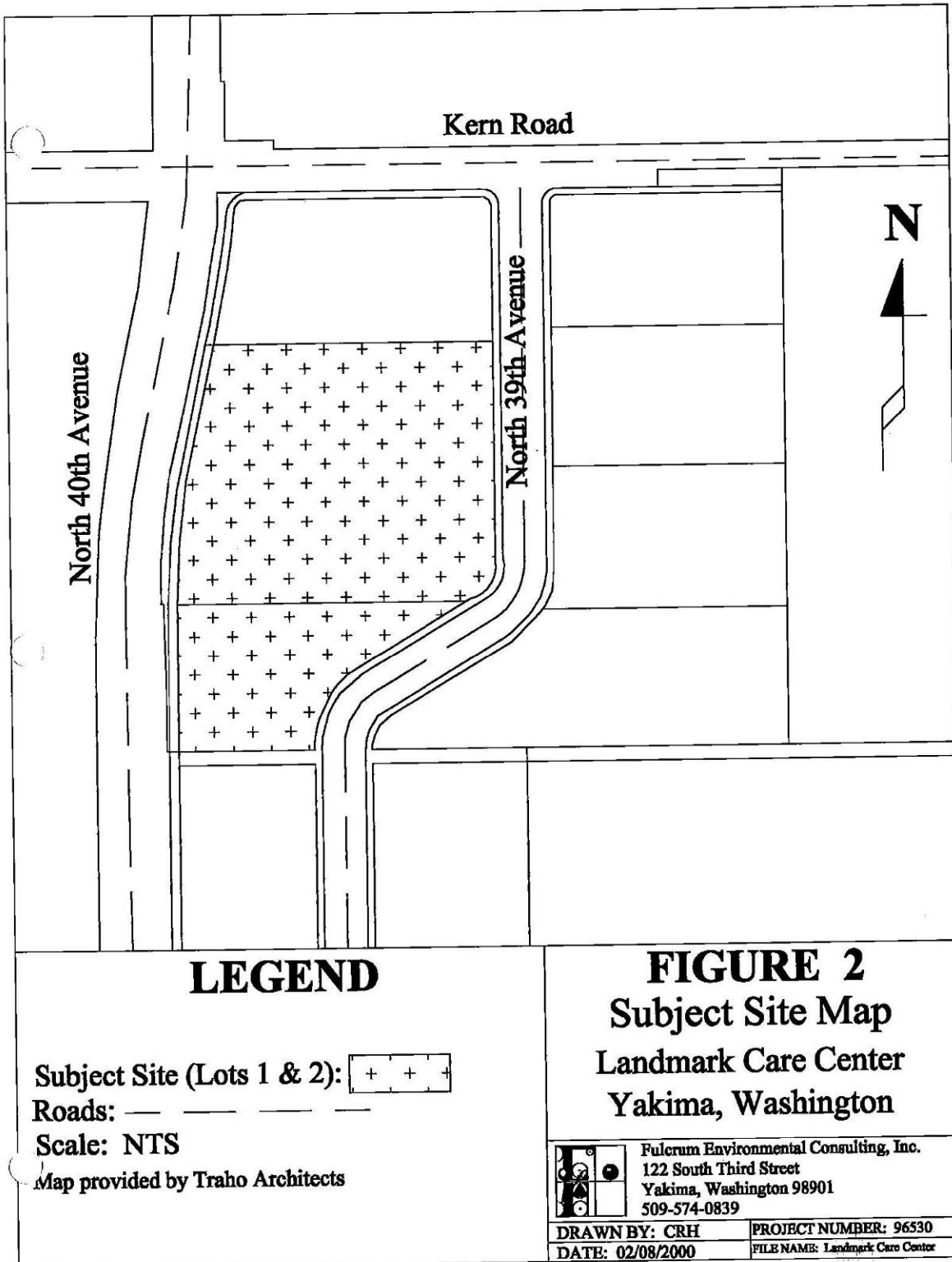
Ecology. *Site Visit*. February 9, 2010.

6.0 APPENDICIES

6.1 Vicinity Map



6.2 Site Map



6.3 Photo log

Photo 1: Front of facility - from the north



Photo 2: Site Entrance - from the northeast



Photo 3: Site Entrance - from the south



Photo 4: Site Landscaping - from the west

