



Third Periodic Review

Chandler House Site
Facility/Site ID #: 37448244
Cleanup Site ID #: 504
701 North 39th Avenue
Yakima, Washington 98902

Prepared by:
Washington State Department of Ecology
Central Regional Office
Toxics Cleanup Program

June 2018

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1.0 INTRODUCTION

This document is the Washington State Department of Ecology's third periodic review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the Chandler House Site (Site). The cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC). The previous periodic review for this Site was completed in June 2013. This periodic review will evaluate the period from 2013 through 2018.

Cleanup activities at this Site were completed through the Voluntary Cleanup Program. The cleanup actions resulted in residual concentrations of lead and arsenic that exceed MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). As a result of residual contamination, institutional controls were required for the Site to be eligible for a no further action (NFA) determination. WAC 173-340-420(2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
- (c) Or, as resources permit, whenever the department issues a no further action opinion
- (d) And one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup
 - 2. Where the cleanup level is based on a practical quantitation limit
 - 3. 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 Chandler House Site is located in the City of Yakima, Yakima County, Washington. The Site consists of approximately 1.44 acres adjacent to North 39th Avenue between Englewood Avenue and Kern Road. A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2.

Prior to remediation/construction activities in 1998, there were no structures on the Site. The Chandler House Site was historically part of a large fruit orchard from sometime before 1939 to sometime after 1977. The application of lead arsenate pesticide over several decades resulted in the accumulation of lead and arsenic in surface soils at levels that are hazardous to human health and the environment. Lead and arsenic are relatively immobile in soil and generally remain in the shallow soils, even though application ceased prior to 1950.

2.2 Site Investigation

In 1996, Fulcrum Environmental Consulting, Inc. conducted a Phase I Site Assessment of the Site. The Site was being considered for construction of senior care center. It was determined that the Site had operated as an orchard for approximately 40 years, and was likely to contain residual pesticide contamination. Thirty-one samples were collected from the Site and analyzed for lead, arsenic, and dichlorodiphenyltrichloroethane (DDT). Arsenic concentrations ranged from 21.1 parts per million (ppm) to 177 ppm, lead concentrations ranged from 142 ppm to 1440 ppm, and DDT concentrations ranged from 1.85 ppm to 20.8 ppm.

2.3 Cleanup Levels and Point of Compliance

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance. The MTCA Method A cleanup levels for arsenic, lead, and DDT are 20 ppm, 250 ppm, and 1.0 ppm, respectively.

For soil, the point of compliance is the area where the soil cleanup levels must be attained. For this Site, the point of compliance is established as soils throughout the Site.

2.4 Remedial Actions

It was determined that onsite management of impacted soil would be the most appropriate remedial action. This option was selected because the contamination was widespread across the Site, and offsite disposal would have been cost prohibitive. Onsite management consisted primarily of using contaminated soils for fill material. In addition, material was contained under barriers such as asphalt pavement, concrete building slab, concrete sidewalk, and soil/vegetative cover.

During construction it was determined that some Site soils would have to be relocated offsite in order for driveway and parking elevations to be within acceptable parameters. As a result, approximately 600 to 700 cubic yards of predominately native material was relocated to the Landmark Care Center property (Landmark) across the street.

The Chandler House Site and Landmark had common ownership. Landmark and the Chandler House Site were historically a portion of the same orchard and are expected to have similar concentration and distribution of agricultural chemicals. A similar remedial process was initiated at Landmark at the same time, and staged soils from the Chandler House Site were used for fill on the Landmark property during construction. The Chandler House soils were used to increase the elevation of low areas under paving or building footprint areas.

2.5 Institutional Controls

Because contamination was capped at the Site at concentrations exceeding MTCA Method A cleanup levels, institutional controls were required for the Site to be eligible for a NFA determination. Institutional controls in the form of a restrictive covenant were recorded for the property in February 2000 and a NFA determination was issued for the Site later that month. The conditions of the restrictive covenant are available below:

1. The Property contains Arsenic, Lead, and DDT concentrations in soil located under impermeable surfaces such as Building A and B and associated asphalt areas; or under sod and 6" of clean topsoil in permeable surface areas such as landscaped areas. The Owner shall not alter, modify, or remove the existing structure or clean top soil/sod harrier in any manner that may result in the release or exposure to the environment of soil containing arsenic, lead and DDT, or create a new exposure pathway without prior written approval from Ecology.

Any activity on the Property that may result in the release or exposure to the environment of the soil containing Arsenic, lead, DDT, that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited on this site include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface greater than 6" with a rod, spike, or similar item, bulldozing or earthwork.

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2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited
 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology
 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action
 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property. This provision shall not require notification of residents of individual beds or suites within the Property while being used essentially in its present fashion.
 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.
 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action
 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity to comment finds it appropriate to do so.

A copy of the restrictive covenant is available as Appendix 6.3.

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, direct contact) to contaminated soils. Based upon the Site visit conducted on June 19, 2018, no repair, maintenance or contingency actions have been required. A photo log is available as Appendix 6.4.

The restrictive covenant for the Site was recorded and remains active. There is no evidence that a new document has been recorded that limits the effectiveness or applicability of the covenant. The restrictive covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the covenant. This restrictive covenant serves to assure the long-term integrity of the cap.

Soils with arsenic, lead, and DDT concentrations higher than MTCA Method A cleanup levels are still present at the Site. However, the cap prevents human exposure to this contamination by ingestion and direct contact with soils. The restrictive covenant for the property will ensure that the integrity of the caps will be protected through maintaining the current use of the Site.

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 and the cleanup action is still protective of human health and the environment.

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 removal/recycling of hazardous substances as well as containment, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

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

- The cleanup actions completed at the Site are protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, the cleanup action is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The restrictive covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the restrictive covenant are being followed. No additional remedial actions are required by the property owner. 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*. July 1999.

Ecology. *No Further Action Letter*. February 2000.

Ecology. *Restrictive Covenant*. February 2000.

Ecology. *Periodic Review*. June 2013.

Ecology. *Site Visit*. June 19, 2018.

6.0 APPENDICIES

6.1 Vicinity Map

Chandler House Site

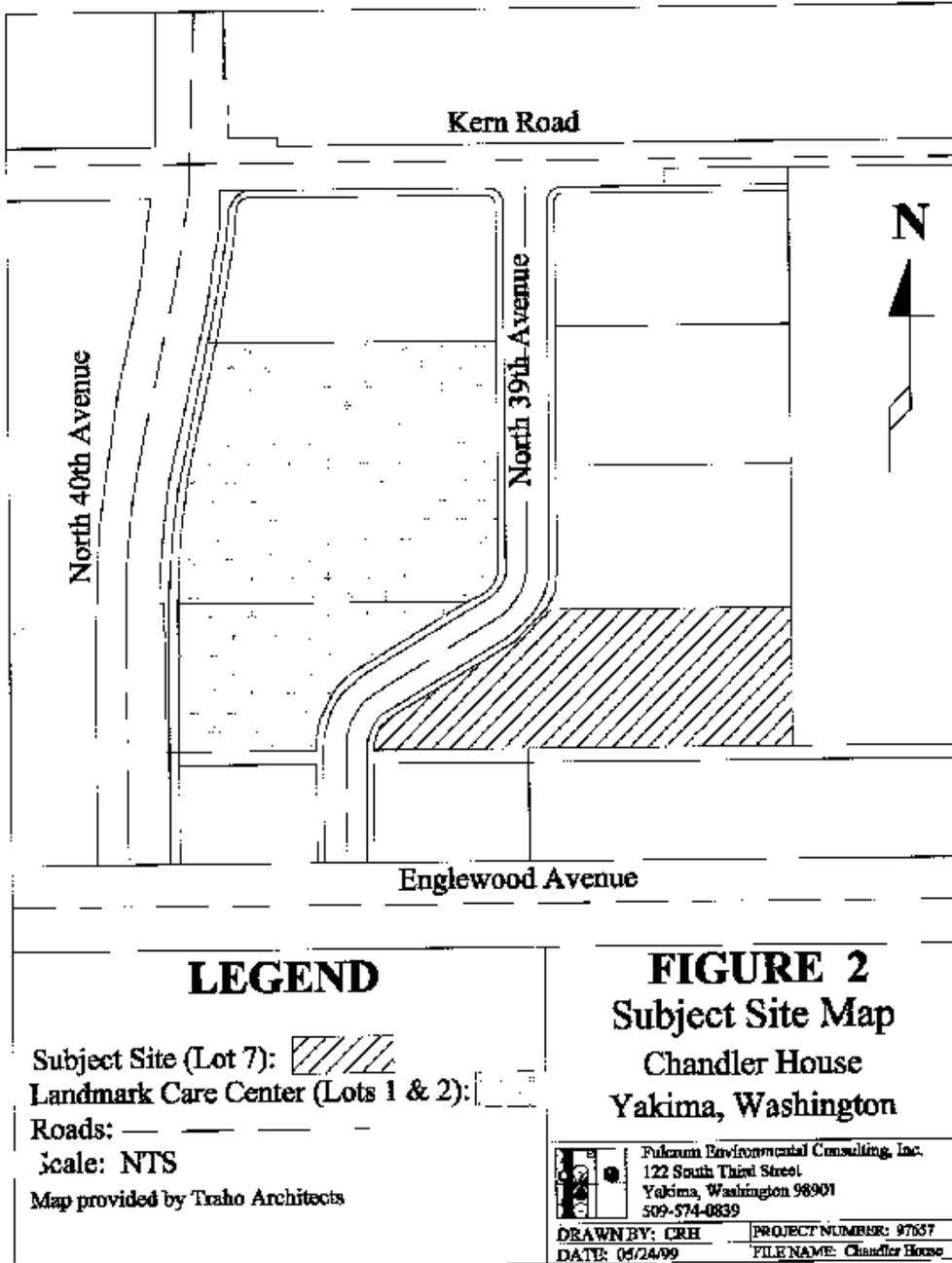


0 0.15 0.3 0.6 Miles

Legend	
	County Roads
	Highways
	Chandler House



6.2 Site Map



6.3 Environmental Covenant

RETURN ADDRESS:

Fidelity Title Company
406 North Second Street
Yakima, WA 98907

Please print or type information

Document Title(s) (or transactions contained therein):	<i>Miss</i>
1. RESTRIIVE CONVENANT	
2.	
3.	
Reference Number(s) of Documents assigned or released: (on page of document(s))	
Grantor(s) (Last name first, then first name and initials)	
1. TANDRE LLC	
2.	
3.	
4. <input type="checkbox"/> Additional names on page of document.	
Grantee(s) (Last name first, then first name and initials)	
1. <i>The Public</i>	
2.	
3.	
4. <input type="checkbox"/> Additional names on page of document.	
Legal description (abbreviated: i.e. lot, block, plat or section, township, range) Lot 7 of Professional View West Plat, recorded under AF#3119283	
<input type="checkbox"/> Additional legal on page of document.	
Assessor's Property Tax Parcel/Account Number 181315-43464	
<input type="checkbox"/> Additional legal on page of document.	
<input type="checkbox"/> Emergency nonstandard document recording: I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording processing requirement may cover up or otherwise obscure some part of the text of the original document.	
Signature _____	
The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.	

SWS Vision Form SIX01WA Rev. 11/26/96



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RESTRICTIVE COVENANT

TANDRE LLC (CHANDLER HOUSE)

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030 (1) (f) and (g) and WAC 173-340-440 by Tandre LLC, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following document: Report of Voluntary Remedial Action prepared by Peggy Williamson of Fulcrum Environmental Consulting, Inc. This document is on file at Ecology's Central Regional Office.

This Restrictive Covenant is required by WAC 173-340-440 because the Remedial Action resulted in residual concentrations of Arsenic, Lead, and dichlorodiphenyltrichloroethane (DDT) which exceed the Model Toxics Control Act Method A unrestricted use levels for soil established under WAC 173-340-740. Accordingly, certain engineering controls have been put in place on the Property to deal with such soil.

The undersigned, Tandre LLC, is the fee owner of real property (hereafter "Property") in the County of Yakima, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described as follows:

Lot 7 of the Professional View West Plat, according to the Plat thereof recorded December 19, 1995, under Yakima County Auditor's file No: 3119283 located in Yakima, Washington.

Tandre LLC makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

1. The Property contains Arsenic, Lead, and DDT concentrations in soil located under impermeable surfaces such as Building A and B and associated asphalt areas; or under sod and 6" of clean topsoil in permeable surface areas such as landscaped areas. The Owner shall not alter, modify, or remove the existing structure or clean top soil/sod barrier in any manner that may result in the release or exposure to the environment of soil containing Arsenic, Lead, DDT, or create a new exposure pathway without prior written approval from Ecology.

Any activity on the Property that may result in the release or exposure to the environment of the soil containing Arsenic, Lead, DDT, that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited on this site include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface greater than 6" with a rod, spike, or similar item, bulldozing or earthwork.

Tandre, LLC - Restrictive Covenant



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2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.
4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.
5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessors of the restrictions on the use of the Property. This provision shall not require notification of residents of individual beds or suites within the Property while being used essentially in its present fashion.
6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.
7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.
8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, finds it appropriate to do so.

Executed this 28th day of February, 2000.

TANDRE LLC

By: H. Norman Hyatt
H. Norman Hyatt
Manager

Chandler House - Restrictive Covenant



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6.4 Photo log

Photo 1: Landscaping at Front of Facility - from the northwest



Photo 2: Parking Area - from the east



Photo 3: Landscaping at Facility Entrance - from the north



Photo 4: Resident Yard - from south

