



Second Periodic Review
Wenatchee City Rotary Park
1410 North Western Avenue
Wenatchee, Washington 98801

Facility/Site ID #: 1584748
Cleanup Site ID #: 836

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

June 2015

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1.0 INTRODUCTION

This document is the Department of Ecology's second periodic review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the Wenatchee City Rotary Park 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 first periodic review for this Site was completed in November 2009. This periodic review will evaluate the period from December 2009 through June 2015.

Cleanup activities at this Site were completed through the Voluntary Cleanup Program (VCP) under project No. CE0214. 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 as part of the Cleanup Action Plan for the Site to be eligible for a No Further Action determination (NFA). 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 Wenatchee City Rotary Park Site is located in the City of Wenatchee in Chelan County, Washington. The Site is surrounded by single-family residences and is bordered to the north by Mulberry Lane, to the south by Maple Street, and to the east by North Western Avenue.

The 8.8-acre Site previously operated as an apple orchard for at least 50 years. Surface topography at the Site generally slopes easterly towards North Western Avenue. Groundwater is approximately 30 feet below ground surface (bgs) with an easterly flow direction.

Contaminants of concern associated with the orchard operation include chlorinated pesticides, organophosphorus pesticides (OP Pesticides), and metals including arsenic and lead which have been applied as part of the customary operations of apple and cherry orchards. As part of the cleanup action described below, the Site was redeveloped into a city park. Park elements include nine tennis courts, three multi-purpose courts, an 80-space parking lot, a restroom/storage building, a picnic shelter, and a paved promenade. The northern third of the park is developed for more passive, open space use as is the western third. An 8-foot wide walking trail circles the park.

A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2.

2.2 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 level for arsenic and lead is 20 parts per million (ppm) and 250 ppm, respectively.

For soil, the standard 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.

2.3 Site Investigations

2.3.1 Phase I ESA

A Phase I Environmental Site Assessment (ESA) was conducted in 1996. Sample collection was not performed as part of the ESA. No signs of distressed vegetation were noted during the ESA Site visit, and no evidence of underground storage tanks or hazardous material disposal activities

was found during the Site background research. Groundwater in the area was documented at approximately 30 feet bgs during the ESA, based on local well log information. The ESA Report documents concerns about an open septic pool (located near the former apartment building) on the property but concludes that the Site presents a low risk of environmental concern. No other environmental investigations are known to have occurred at the Site.

2.3.2 EPA Assessment

Through the United States Environmental Protection Agency (EPA) Superfund Technical Assessment and Response Team (START), Ecology and Environment, Inc., (E & E) performed a Targeted Brownfields Assessment (TBA) at the Site in 2000. The City of Wenatchee wished to determine potential contamination from farming practices at the property to assist in the assessment of future use of the property as a city park and therefore requested a TBA at the property. The TBA consisted of limited on-site sampling at potential contaminant source areas for Site characterization purposes.

Sampling was conducted in areas with potential contamination sources, including the following:

- Orchard Soils: Pesticides and fertilizers were applied according to the manufacturers' directions during orchard operations. Potential contaminants of concern include chlorinated pesticides, OP Pesticides, and metals;
- Solid Waste Piles: Two solid waste piles with unknown contaminants existed at the Site during the ESA in 1996. Part of the property, including the location of one of the waste piles, was sold by the City since that time. Potential contaminants of concern at the on-site waste pile include VOCs, SVOCs, chlorinated pesticides, OP Pesticides, and metals;
- Former Laboratory Sump: A sump located in the former laboratory existed at the Site during the 1996 ESA; however, the laboratory burned down since that time and the sump was not located during the TBA. One surface soil sample was collected in the approximate location of the former sump based on information provided by City personnel and visual observations. Operations associated with the former laboratory and sump are unknown; therefore, suspected potential contaminants of concern include VOCs, SVOCs, chlorinated pesticides, OP Pesticides, and metals;
- Open Septic Pool: An open septic pool with unknown contaminants existed at the Site during the ESA; however, the pool was not located during the TBA. One surface soil sample was collected from the approximate location of the former septic pool based on information provided by City personnel and visual observations. Suspected potential contaminants of concern include VOCs, SVOCs, chlorinated pesticides, OP Pesticides, and metals.

Surface soil samples were collected from 12 locations. Nine SVOCs, one OP Pesticide, nine chlorinated pesticides, and 23 TAL metals were detected in the surface soil samples. MTCA Method A or B cleanup levels were exceeded at 11 of 12 locations. 4,4-dichlorodiphenyldichloroethylene (DDE) was detected at a maximum concentration of 4,500 ug/kg, 4,4-dichlorodiphenyltrichloroethane (DDT) was detected at a maximum concentration of 5,000 ug/kg, arsenic was detected at a maximum concentration of 104 mg/kg and lead was detected at a maximum concentration of 622 mg/kg.

Subsurface soil samples were collected from eight locations. Only arsenic exceeded MTCA Method A cleanup levels in two of these samples with a maximum concentration of 25.6 mg/kg.

2.4 Remedial Actions

The City of Wenatchee conducted a final cleanup action at the Site during the summer of 2004 with technical and engineering support from Munson Engineers, Inc. It was determined that a multi-tiered approach to soil contamination remediation best suited the Site.

Site remediation consisted of the following steps:

1. The northeast corner of the property contained arsenic and lead in the top six inches of soil at concentrations up to 41.6 mg/kg 546 mg/kg, respectively. Between 2 and 6 feet below ground surface (bgs), arsenic was still detected at 25.6 mg/kg. The native ground at this area not disturbed and it was capped with two feet of clean soil.
2. Two on-site repositories were created to contain contaminated soils. The repository volume was sized to contain the top two feet of soil over the *entire* Site except the portion above that would be covered in place by at least two feet of clean soil.
 - a. The first pit was excavated approximately 10 feet deep and clean subsurface material was stored on clean ground. The first pit was filled with contaminated material that had been stockpiled. Additionally the top two feet of a portion of the Site was removed and used to fill the pit until the level rose to slightly deeper than two feet from the finished grade. Soil from the stockpiled subsurface material covered the first pit with a minimum of 2 feet of clean material.
 - b. The second pit was excavated to a depth of approximately 10 feet. The top two feet of remaining exposed undisturbed native soil filled the second pit. The second pit was capped with a minimum of two feet of clean soil.
2. The entire Site was capped with clean soils from the following five sources.
 - a. Soil generated during the Wenatchee Police Station expansion at Mission Street and Yakima Avenue in Wenatchee. This material capped the portions of the Site described as Rotary Plaza, the Western Avenue frontage, and the basketball court.
 - b. The second cap source material was the native soil excavated between 2 and 15 feet bgs when the repository pits were created to bury contaminated soil. This material was distributed on Site and was also used to cap the two pits.
 - c. The third cap source came from the storm drain excavation of Maple Street in Wenatchee. Storm drain improvements replaced small diameter pipes with large diameter pipes below the paved surface of Maple Street. This material was used for a portion of the cap of the first repository pit.
 - d. The fourth cap source was excavated material generated by the repaving of Maple Street. This material was also located below the paved surface of Maple Street. This material was used for a portion of the cap of the first repository pit.
 - e. The fifth cap material source was soil generated by the construction of J & K Earthworks shop facility north of Pangborn Airport in Douglas County. The land was previously undisturbed sageland. This material was sampled by Ecology personnel prior to use. Lead and arsenic concentrations were near natural

background concentrations. This material was used to cover all areas of the Site that would not be paved or covered with concrete slabs with a minimum of 6" of clean fill.

2.5 Institutional Controls

Because contamination was capped on 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 Site in 2003 and an NFA determination was issued in May 2006. The conditions of the restrictive covenant are available below:

1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas 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 with a rod, spike or similar item, bulldozing or earthwork."
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.
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, concurs.

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

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

3.1.1 Direct Contact Pathway

The Site currently operates as a City of Wenatchee public park. The Site is covered in grass, with a small pavilion and a paved walking path circling the park. The clean soil cap continues to serve as an effective barrier to eliminate the human exposure pathways (ingestion, contact) to contaminated soils. Based upon the Site visit conducted on June 3, 2015, no repair, maintenance or contingency actions have been required. A photo log is available as Appendix 6.4.

The success of a clean soil cap and turf as a barrier over contaminated soil is highly dependent upon long-term maintenance. It is critical to communicate the presence of contaminated soil and associated use restrictions to maintenance and landscaping staff; especially over the long-term when institutional knowledge is lost with staff turnover. As a result, a municipal property such as this that is used by the general public should have a landscaping and maintenance plan to communicate requirements and restrictions to City personnel. A plan would ensure turf cover and plantings are maintained; prescribe inspections to look for dead vegetation, erosion or damage to paved areas; and detail the process to manage soils excavated during digging activities.

Though the Site visit indicated that the Park is being maintained in a manner consistent with the Restrictive Covenant, Ecology recommends that the City implement a management plan to address maintenance and landscaping needs in the vicinity of the capped contamination. A photo log is available as Appendix 6.4.

3.1.2 Institutional Controls

An Institutional Control in the form of a restrictive covenant was recorded for the Site and remains active. There is no evidence that another instrument has been recorded that may limit the applicability or effectiveness of the restrictive covenant. This 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 surface cover.

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

There are no new relevant state or federal laws for lead since remedial actions were completed at the Site. The Cleanup level for lead at the time of the NFA determination is still applicable 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 as a City of Wenatchee park. 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 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 for the Property 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 continues to be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.
- A Site maintenance and landscaping plan should be developed by the City to make sure that employees are aware of the procedures necessary to avoid exposure of contaminated soils.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being satisfactorily 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.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

Ecology and Environment, Inc. *Wenatchee Orchard Targeted Brownfields Assessment Report*. June 2000.

Munson Engineers, Inc. *Cleanup Action Report*. October 26, 2005.

Ecology. *Restrictive Covenant*. September 19, 2005.

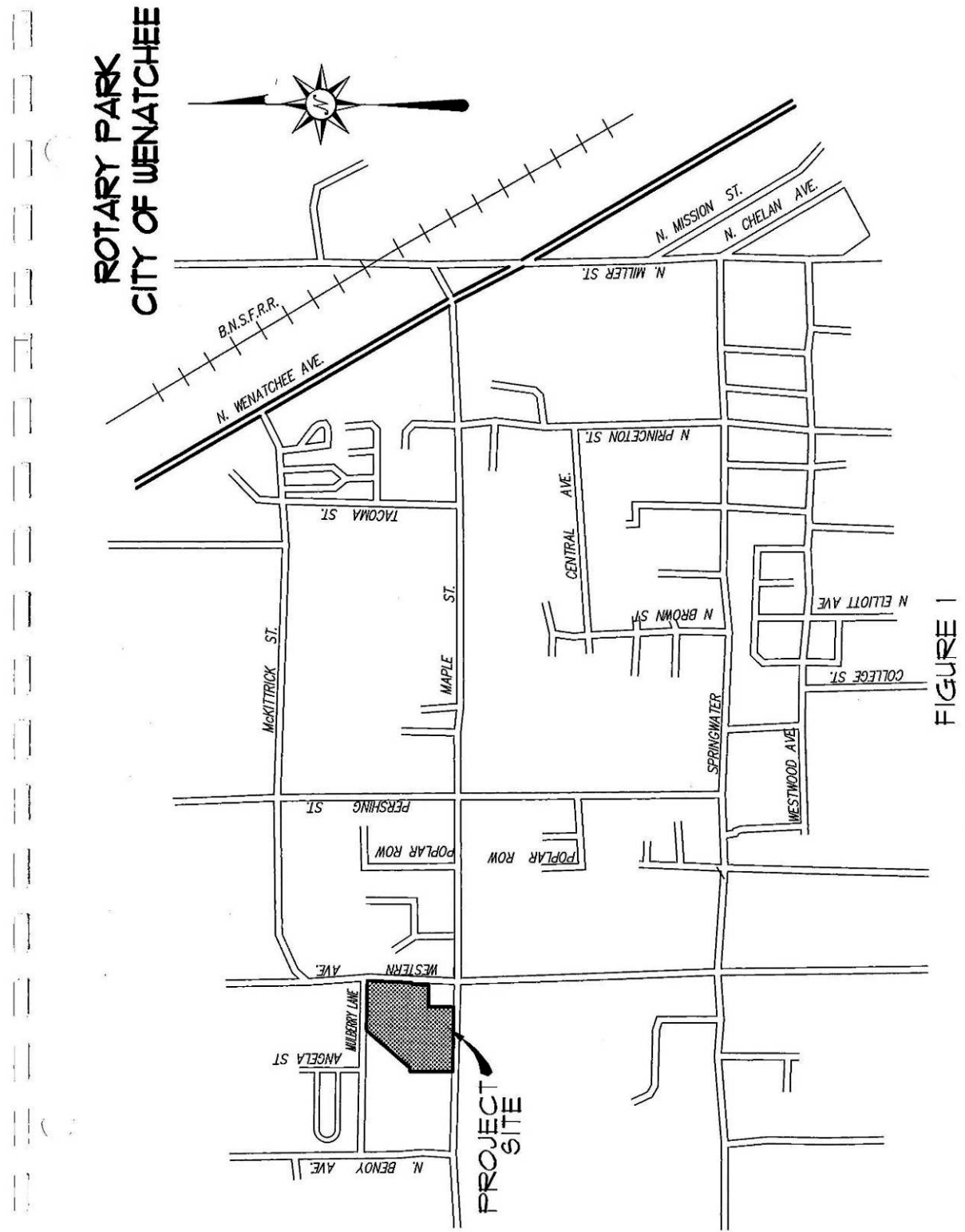
Ecology. *No Further Action Determination Letter*. May 10, 2006.

Ecology. *Periodic Review*. December 2, 2010.

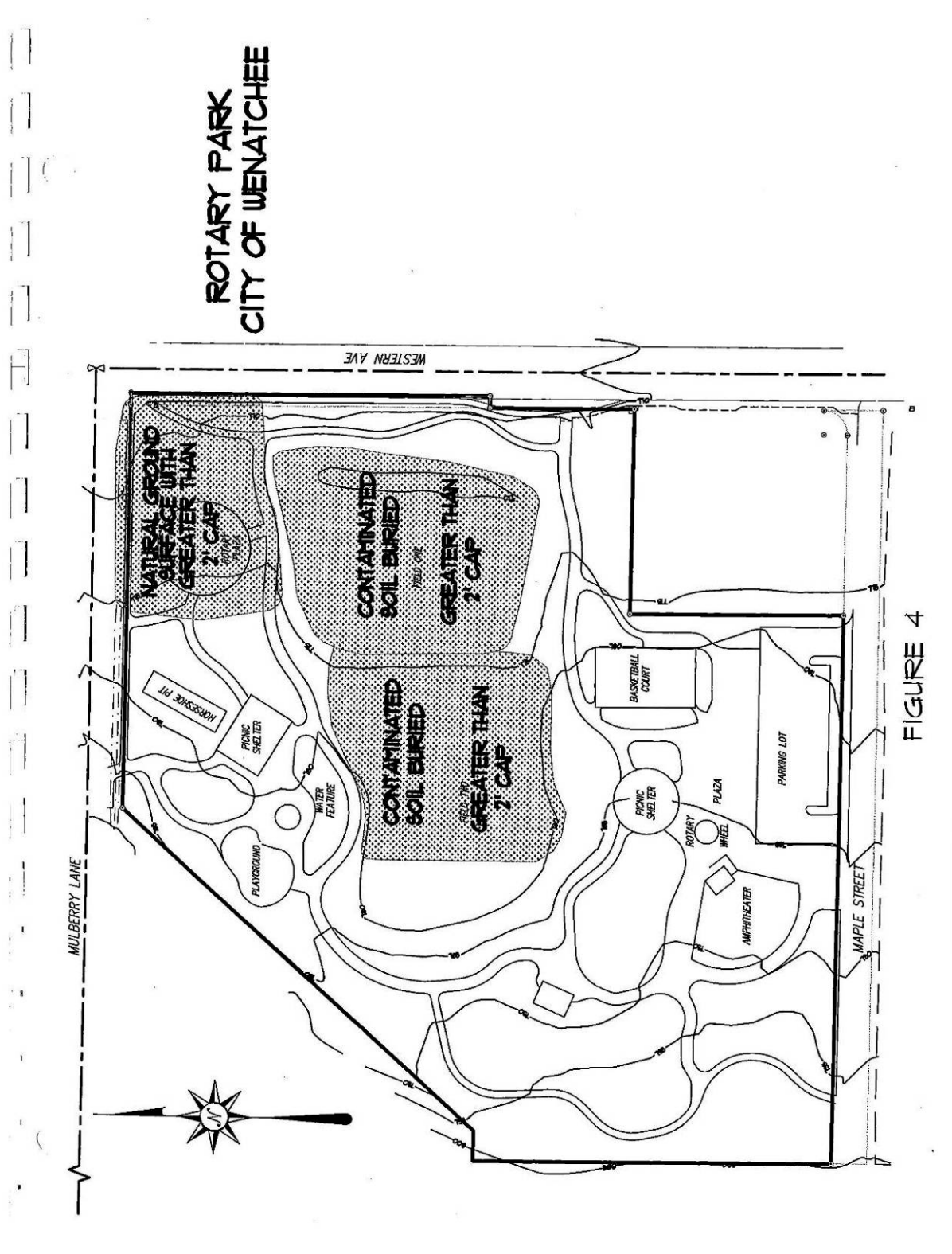
Ecology. *Site Visit*. June 3, 2015.

6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Map



6.3 Environmental Covenant



After recording return to:
City of Wenatchee, Attn: Steve King
25 N. Worthen Street
Wenatchee, WA 98801

RESTRICTIVE COVENANT CITY OF WENATCHEE, ROTARY PARK

Reference numbers of related documents:

Grantor:
1. City of Wenatchee

Grantee:
1. Public

Legal Description:
1. The Northeast quarter of the Northeast quarter of the Southeast quarter of Section 32, Township 23N, Range 20 E.W.M., Chelan County, Washington.
2. See Attachment A.

Assessor's Tax Parcel Number: 232032410250

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by the City of Wenatchee, 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[s]:

1. Wenatchee Orchard Targeted Brownfields Assessment Report Wenatchee Washington. TD99-06-0002. Region 10 START. USEPA. May 2000.
2. Rotary Park Cleanup Action Report. Munson Engineers, Inc. March 7, 2005.

These documents are on file at Ecology's Central Regional Office.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of lead and arsenic which exceed the Model Toxics Control Act Method A Residential Cleanup Levels for soil established under WAC 173-340-704.

¹ The term 'document' means reports prepared regarding the remedial action as well as Ecology's NFA letter.

RESTRICTIVE COVENANT
CITY OF WENATCHEE, ROTARY PARK
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The undersigned, the City of Wenatchee, is the fee owner of real property (hereafter "Property") in the County of Chelan, State of Washington, that is subject to this Restrictive Covenant. The property is legally described in Attachment A of this Restrictive Covenant and made a part hereof by reference.

The City of Wenatchee 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").

Section 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas 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 with a rod, spike or similar item, bulldozing or earthwork."

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

RESTRICTIVE COVENANT
CITY OF WENATCHEE, ROTARY PARK
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Attachment A

In the County of Chelan, State of Washington

The Northeast quarter of the Northeast quarter of the Southeast quarter of Section 32, Township 23N, Range 20E.W.M., Chelan County, Washington, EXCEPT that portion thereof described as follows:

Beginning at the Northwest corner of said subdivision; due South 20 feet to a point on the South line of Mulberry Lane, being the true point of the beginning; thence continue due South to the Southwest corner of said subdivision; thence run due East along the South line of said subdivision for 25 feet; thence run Northwesterly to a point on the South line of the right of way of Mulberry Lane, said point lying 302 feet Easterly of the true point of beginning; thence run due Westerly for 302 feet to the true point of beginning;

AND EXCEPT that portion commencing at the Southeast corner of said subdivision; thence N89°37'43"W a distance of 201.00 feet along the south line of said subdivision; thence N00°24'54"W a distance of 30.00 feet to the true point of beginning; thence N00°24'54"W a distance of 180.00 feet; thence S89°37'43"E a distance of 171.00 feet to the west right of way line of Western Avenue as said right of way line lies 30 feet west of, and parallel to, the east line of said section 32; thence S00°24'54"E along said west right of way line a distance of 159.72 feet to a curve to the right, said curve having a radius of 20 feet; thence 31.69 feet along said curve to a point of tangency with a line lying 30 feet north of and parallel to, the south line of said subdivision; thence N89°37'43"W along said parallel line a distance of 150.72 feet to the true point of beginning;

AND EXCEPT the east 30.00 feet for right of way on Western Avenue and the south 30 feet for right of way on Mulberry Lane;

AND TOGETHER WITH that portion commencing at the Northwest corner of said subdivision; due South 30 feet to a point on the South line of Mulberry Lane; thence continue due South to the Southwest corner of said subdivision, being the true point of the beginning; thence N54°27'36"E a distance of 51.20 feet; thence N26°55'29"E a distance of 124.41 feet; thence N89°50'31"E a distance of 30.00 feet; thence N52°38'12"E a distance of 63.28 feet; thence N37°30'47"E a distance of 151.76; thence S89°41'10"E a distance of 20 feet; thence S41°34'02"W a distance of 400.50 feet; thence S89°31'16"E a distance of 24.97 feet to the true point of the beginning. Parcel 232032410250

6.4 Photo log

Photo 1: Wenatchee City Rotary Park - from the east



Photo 2: Soil Containment Area - from the northeast



Photo 3: Soil Containment Area - from the north



Photo 4: Picnic Area and Park Facilities – from the north

