INSTITUTIONAL CONTROL IMPLEMENTATION AND ASSURANCE PLAN (ICIAP) FOR THE COLBERT LANDFILL

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TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY ........................................................................................................... 1

1.1 PURPOSE OF THE INSTITUTIONAL CONTROL IMPLEMENTATION ASSURANCE PLAN (ICIAP) ..... 1
1.2 SITE DETAILS .......................................................................................................................... 1
1.3 SITE DESCRIPTION ............................................................................................................... 2

2.0 COLBERT LANDFILL DECLARATION OF RESTRICTIVE COVENANTS ................................. 3

3.0 INSTITUTIONAL CONTROLS – WELL DRILLING SUMMARY .................................................. 4

4.0 INSTITUTIONAL CONTROLS EVALUATION SUMMARY ....................................................... 5

TABLE OF FIGURES

Figure 1: Colbert Landfill Site ....................................................................................................... 1
Figure 2: Colbert Landfill Vicinity/Pump-and-treat Extraction System ......................................... 2

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1.0 Executive Summary

The goal of Spokane County’s Institutional Control (IC) Program is to ensure the protection of public health and the environment in the Colbert Landfill Superfund Site vicinity.

1.1 Purpose of the Institutional Control Implementation Assurance Plan (ICIAP)

The Institutional Control Implementation and Assurance Plan (ICIAP) serves as a “living road map” that guides the work of Spokane County’s Institutional Controls (IC) program toward its goal. Institutional Controls are defined as non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human and ecological exposure to contamination and/or protect the integrity of the remedy. This plan describes the process for recordable and enforceable controls, along with the key strategies to ensure the protection of public health and the environment in the area surrounding the Colbert Landfill.

1.2 Site Details

The Colbert Landfill is located approximately 2.5 miles north of Colbert, Washington, and approximately 15 miles north of Spokane, Washington (Figure 1). The closed landfill is surrounded primarily by residential development and open lands. The area south of the Site contains forested lands, open fields, and a few residential homes. The Spokane County Recycling Center and Transfer Station is located immediately west of the Site’s groundwater treatment facility. There are residences located within the footprint of the groundwater plume (i.e., beyond the landfill) in all directions around the landfill.

![Figure 1: Colbert Landfill Site](image-url)
1.3 Site Description

The landfill operated from 1968 to 1986. During a 5-year period between 1975 and 1980, the landfill accepted spent solvent and other chemical waste that was subsequently poured into open trenches to mix with the soil or ordinary municipal refuse already in the trench. The solvents typically included 1,1,1-trichloroethane (TCA); methyl ethyl ketone (MEK); poly thinner; enamel thinner; toluene; paint remover; and primer wastes.

In 1980, EPA, Washington State Department of Ecology (Ecology), and the Spokane County Utilities Department conducted an investigation into public complaints about disposal practices by initiating a groundwater sampling study of nearby domestic water wells. Groundwater samples collected from 20 domestic wells contained contaminants at concentrations above drinking water standards that were, in part, traced to the spent solvents disposed of at the landfill.

Following domestic well sampling, a Remedial Investigation/Feasibility Study (RI/FS) was completed and EPA issued a Record of Decision (ROD) in 1987, which selected a remedy based on the results of the RI/FS. On January 23, 1989, a Consent Decree (C-89-033-RJM) between the Environmental Protection Agency (EPA), the Washington Department of Ecology (Ecology), Spokane County, and Key Tronics Corporation was lodged in federal court. The Consent Decree addressed the implementation of the remedial actions specified in the 1987 ROD. The selected remedial actions included a pump-and-treat (P&T) system for groundwater, landfill closure, and post-closure components for source control, plus institutional controls and an alternate water supply to impacted residents. Additional site characterization and investigations were completed in 1990 as part of the Phase I engineering assessment (Landau Associates 1991) to collect additional information needed to initiate the final design of the P&T system.

Construction of the P&T system was completed in 1994. The P&T system operated successfully for 20 years. In 2014, an EPA recommended shut-down test was initiated to determine if the system was continuing to add any significant benefit to the cleanup.

The programs currently in place include a Shut-Down Test (lower aquifer) for the pump-and-treat system; upper aquifer compliance groundwater monitoring (includes 1,4-dioxane monitoring and MFS monitoring of the upper aquifer); residential well monitoring (includes both upper and lower aquifers); supplemental sampling (includes both upper and lower aquifers); and landfill cover maintenance and monitoring.

Figure 2: Colbert Landfill Vicinity/Pump-and-treat Extraction System
2.0 Colbert Landfill Declaration of Restrictive Covenants

The Consent Decree (C-89-033-RJM) specifies that the state may implement controls to prevent well installation in the Colbert Landfill site area. The "Declaration of Restrictive Covenants Running With the Land" document (Appendix A), signed by the board of Spokane County Commissioners on September 15th, 2009, makes the following declarations as to limitations, restrictions, and uses for the Colbert Landfill "Property:"

SECTION NO. 1:
No wells may be drilled, nor groundwater extracted, for any use, except for purpose of the Cleanup Action within the Property as required by the Consent Decree.

SECTION NO. 2:
The Owner of the Property shall maintain fences and locked gates around the property and shall perform regular inspections to assure that the restrictions on access to the Property are effective.

SECTION NO. 3:
No person shall engage in any activity within the boundaries of the Property that may result in the release of hazardous substances which were contained in the remedial action. Construction activities encompassing footings, utilities, pilings, parking areas or other requirements associated with ground level structures, shall be deemed non-interference activities within the meaning of this paragraph, so long as such activities do not involve any ground disturbance more than 45 feet below the existing surfaces.

SECTION NO. 4:
The Owner shall prohibit any activity on the Property that would threaten the structural integrity of the landfill cap or otherwise interfere with the Cleanup Action, operation and maintenance, monitoring, or other measures necessary to assure the integrity of the remedial action and continued protection of human health and the environment.

SECTION NO. 5:
The Owner must give written notice to Ecology, EPA, or to a successor agency, of the Owner’s intent to convey any interest in the Property at least thirty (30) days prior to such conveyance. 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 Cleanup Action on the Property.

SECTION NO. 6:
The Owner shall include in any lease of the Property provisions restricting uses and activities under such Lease to those consistent with these covenants.

SECTION NO. 7:
In the event that the Owner proposes to use the Property in a manner which is inconsistent in any way with these restrictive covenants, such person must give prior written notice to Ecology of its proposal. No person shall use the Property in any manner inconsistent with these restrictive covenants without prior written consent of Ecology or EPA. If Ecology and/or EPA after public notice and comment approves the proposed change, the proposed change to the restrictive covenant shall be amended to reflect the change.

SECTION NO. 8:
Ecology and its designated representatives, and EPA and its designated representatives shall have the right to enter the Property at reasonable times for the purpose of evaluating compliance with the Consent Decree, including the right to take samples, inspect any remedial actions taken on the property, inspect records, and to observe compliance with these restrictive covenant provisions.
SECTION NO. 9:
The Owner reserves the right under WAC 173-340-440(12) to record an instrument that provides that this Declaration of Restrictive Covenants shall no longer be of any further force or effect. However, such an instrument may be recorded only with the consent of Ecology or its successor agency and if EPA concurs. Ecology or its successor agency and EPA may consent to the recording of such an instrument only after appropriate public notice and opportunity for comment to occur.

3.0 Institutional Controls – Well Drilling Summary

The Consent Decree (Appendix B of the Scope of Work, Section IX, page IX-1) states that Spokane County will implement institutional controls to prevent access to the Colbert Landfill. This was accomplished with a signed legal document (Spokane County Resolution No. 1988-0950) in September 2009.

Spokane County has an informational system in place to discourage the construction of wells adjacent to or in known areas of contamination. This system has proven successful throughout remedial activities and is described below. Washington State regulations require that prior to well drilling, the owner/driller must obtain a permit from the Washington State Department of Ecology (Ecology). In addition, the owner/driller is required to notify the local health district prior to well construction. Individuals or organizations drilling a new well or changing a well use in the vicinity of the landfill must follow WAC 173-160 MINIMUM STANDARDS FOR CONSTRUCTION AND MAINTENANCE OF WELLS, and more specifically (but not limited to) WAC 173-160-171 (3)(b)(vi) and WAC 173-160-241.

The local health district in Spokane County has knowledge of the Colbert Landfill Site and associated groundwater contamination. In the event of a well drilling permit issued in the Colbert Landfill site area, the health district notifies owners/drillers of the contaminated site and refers them to Spokane County Colbert Landfill personnel to discuss the location of the proposed well. If the intended well location is adjacent to or within a known area of site contamination, homeowners are made aware of the possibility that the groundwater may be contaminated with compounds associated with the landfill site. Spokane County will request the homeowner have a sample from the well analyzed for the constituents of concern and advises if any of these are detected, the use of the well will be discontinued. The homeowner is also informed that the area within and around the Colbert Landfill site is serviced extensively by available public water hook up through the Whitworth Water District. Homeowners typically prefer this option.

Well records from Ecology are, at a minimum, evaluated annually by county personnel for new or unknown well construction that may have occurred near the Colbert Landfill site area. The records are reviewed to ensure no domestic use wells have been installed in the documented or anticipated areas of groundwater contamination from the landfill. In addition, Spokane County personnel perform regularly scheduled groundwater monitoring on monitoring wells installed around the site area as well as currently utilized domestic use wells that were in operations prior to the cleanup site designation. This monitoring is used to evaluate any changes in constituent of concern concentrations that may adversely affect groundwater use.

Well records from Ecology are, at a minimum, evaluated annually by county personnel for new or unknown well construction that may have occurred near the Colbert Landfill site area. The records are reviewed to ensure no domestic use wells have been installed in the documented or anticipated areas of groundwater contamination from the landfill. In addition, Spokane County personnel perform regularly scheduled groundwater monitoring on monitoring wells installed around the site area as well as currently utilized domestic use wells that were in operations prior to the cleanup site designation. This monitoring is used to evaluate any changes in constituent of concern concentrations that may adversely affect groundwater use.

While Spokane County does not specifically prohibit well drilling and installation, the described process has ensured that the local health district is involved, and the homeowners are made aware of the risks associated with installing domestic use wells in the Colbert Landfill site area. This process has been successfully effective and protective of human health.
Through the process outlined above, Spokane County will record all evaluation activities to ensure transparency and outline the success of the Institutional Controls program. The County will conduct the following activities, and will present the records for each activity in the Colbert Landfill Annual Remediation Progress Reports:

- Generate Constituent of Concern (COC) plume maps using geospatial analysis to define plume boundaries/areas of concern.
- Report plume maps/boundaries to the SRHD to establish boundaries and areas of concern regarding potential well drilling. This will ensure that if an individual/organization is interested in drilling a new well or planning a well use change, the SRHD will have boundaries/areas of concern to reference.
- Coordinate with the Spokane Regional Health District (SRHD) to investigate any individuals/interested in drilling wells or changing a well use in any areas of concern within the annual reporting period timeframe.
- Report plume maps/boundaries to the Washington Department of Ecology (Ecology) to establish boundaries and areas of concern regarding potential well drilling. This will ensure that if an individual/organization applies for a permit to drill a new well or change an established well’s use, Ecology will have boundaries/areas of concern to reference.
- Coordinate with Ecology to investigate any individuals/organizations interested in drilling wells or changing a well use in any areas of concern within the annual reporting period timeframe.
- Utilize the Well Construction and Licensing Search Tools to account for any new or unknown well construction that may have occurred near any areas of concern.

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DECLARATION OF RESTRICTIVE COVENANTS
RUNNING WITH THE LAND

This Declaration of Restrictive Covenants is made pursuant to RCW 70.105D.030(1)(f) and (g), and WAC 173-340-440 by Spokane County, its successors and assigns. The Washington State Department of Ecology (“Ecology”), its successors and assigns, and the United States Environmental Protection Agency (“EPA”), and its successors and assigns, have ordered this restrictive covenant be placed on the Property in conjunction with Consent Decree No. C-89-033-RJM (hereinafter referred to as the Consent Decree).

The property that is the subject of this Declaration of Restrictive Covenants is the subject of remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”). The work that has been completed to continue to clean up the property and conduct long-term operation and maintenance (hereinafter referred to as “Cleanup Action”) is described in Consent Decree No. C-89-033-RJM, in attachments to the Decree, and in documents referenced in the Consent Decree. This Declaration of Restrictive Covenants is also required by Ecology under Ecology’s rule WAC 173-340-440.

The Declarant, Spokane County, is the fee owner of real property, hereinafter referred to as “Property,” situated in Spokane County, Washington that is the subject of this Declaration of Restrictive Covenants. The Property is commonly known as the Colbert Landfill and is legally described as follows:

S.E. ¼ of the S.E. ¼ of Section 3, Township 27N, Range 43E.W.M., lying West of Elk-Chattaroy Rd. and North of Big Meadows Rd.

Tax Parcel # 37034.9009.
A depiction of the Property identified as “Spokane County” is set forth in Attachment “A” hereto.

This Declaration of Restrictive Covenants shall pertain to this property excluding any right of way.

The Declarant, Spokane County, makes the following declarations 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 claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter referred to as “Owner”).

SECTION NO. 1:
No wells may be drilled, nor groundwater extracted, for any use, except for purpose of the Cleanup Action within the Property as required by the Consent Decree.

SECTION NO. 2:
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IN WITNESS WHEREOF, Declarant has caused this instrument to be signed on its behalf by its officers thereunto duly authorized this 15th day of September, 2009.

BOARD OF COUNTY COMMISSIONERS
OF SPOKANE, COUNTY, WASHINGTON

TO DDS MIELKE, CHAIR

ATTEST:
CLERK OF THE BOARD

MARK RICHARD, VICE CHAIR

Diana Vasquez
Daniela Erickson
(Authorized under Res. No. 1988-0950)

BONNIE MAGER, COMMISSIONER
On this 16th day of September, 2009, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared TODD MIELKE, MARK RICHARD, AND BONNIE MAGER, to me known to be the individual(s) that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said individual(s), for the uses and purposes therein mentioned, and on oath stated that he/she were authorized to execute said instrument, and that the seal affixed is the seal of said County.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year first written above.

[Signature]

NOTARY PUBLIC in and for the State of Washington, residing at Spokane.
My commission expires: Jan 30, 2012