Second Periodic Review

Hamilton Street Bridge Site
Facility/Site ID #: 84461527
Cleanup Site ID # 3509

111 North Erie Street
Spokane, Washington 99212

Prepared by:
Washington State Department of Ecology
Eastern Region Office
Toxics Cleanup Program
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1.0 INTRODUCTION

This document is a periodic 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 Hamilton Street Bridge 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 conducted under Consent Decree No. 02205445-0 entered into Spokane County Superior Court between Ecology, Avista Corporation, Burlington Northern Santa Fe Railway Company, and Spokane River Properties, Limited on September 12, 2002. The cleanup actions resulted in residual concentrations of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), carbazole, cyanide, arsenic, barium, lead and selenium which exceed MTCA Method A or Method B cleanup levels. The MTCA cleanup levels for soil are established under WAC 173-340-740. The MTCA cleanup levels for groundwater are established under WAC 173-340-720. 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, 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; or
    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, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site;
(b) New scientific information for individual hazardous substances of 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 Description

The Hamilton Street Bridge Site is located on the southern bank of the Spokane River at 111 North Erie Street in Spokane, Washington. A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2. Following remedial activities, an Environmental Covenant was recorded for the property. The Site is currently undergoing performance monitoring.

The Site includes:

- The Burlington Northern and Santa Fe (BNSF) property (including a portion of which was formerly leased by the American Tar Company (ATC).
- The former Spokane Manufactured Gas Plant (SGP) and The Chicago Milwaukee & Saint Paul Railroad (SM&SPR) properties which were owned by Spokane River Properties, Limited (SRP); then owned by Brown Properties LLC; now solely owned by Eric Brown.

The Site is transected, roughly north-south, by the James Keefe (Hamilton Street) Bridge which is elevated high above ground surface on pilings with spread footings. A 60-inch diameter sanitary sewer line crosses beneath the Site in a southwest-northeast alignment.

2.2 Site History

Between approximately 1905 and 1948, manufactured coal gas and carbureted water gas was produced on the former SGP property. In June 1958, Avista Corp. (formerly the Washington Water Power Co.) merged with the Spokane Natural Gas Company and dispensed natural gas from the Site until 1963. Mr. Richard Brown established Brown Building Materials on the Site, leasing the former SGP property from Avista Corp. from 1963 until March 1978, when he purchased the property. Mr. Richard Brown conveyed the property to SRP, of which he is the general partner, in January 1982. In 2006, SRP conveyed the property to Brown Properties. Mr. Eric Brown, who was the Manager of Brown Properties, is now the sole owner of the property.

During the operation of the manufactured gas plant, coal tar, a by-product of coal gas production, reportedly was conveyed to a coal tar processing plant and distribution facility located on a parcel leased from the Northern Pacific Railroad (now BNSF) adjacent to the south side of the former SGP property. The C.G. Betts Company operated the facility until the early 1930s when the operations were taken over by the ATC. The ATC used the facility until 1967, reportedly shipping tar to the Site from Seattle after the former SGP was shut down. Mr. Richard Brown leased the ATC property from the BNSF between 1968 and 2001.

The existing riverfront property at the Site was formerly owned by the CM&SPR. The CM&SPR constructed a rail line circa 1911, which extended along the southern riverbank to a railroad tunnel which is located within the basalt embankment on the west side of the Site. Historical

records indicate that, during the construction of the CM&SPR, fill materials were deposited into the river; and the Spokane River shoreline was modified to its present configuration.

In 1999, the responsible parties, including Avista Corp., the Burlington Northern and Santa Fe Railway Co. and Ecology jointly agreed to negotiate an Agreed Order, which was filed on March 13, 2000, to conduct a Remedial Investigation (RI) and Feasibility Study (FS), which were completed by early 2001. Ecology issued the final Cleanup Action Plan (CAP) on August 10, 2001, and Consent Decree No. 02205445-0 was recorded on September 12, 2002, which stipulated the terms of the cleanup action.

Ecology combined the Spokane Manufactured Gas Plant and the American Tar Company sites into one referred to as the Hamilton Street Bridge Site with a hazard ranking of three (with one being the highest and five being the lowest risk) under MTCA.

2.3 Site Investigations

In 1981, the Washington State Department of Transportation (DOT) conducted drilling on and around the former SPG and ATC properties to provide design information for the James Keefe Bridge. Contamination was observed at depth in several of the borings and was observed during the bridge construction in 1982.

In 1987, the U.S. Environmental Protection Agency (EPA) completed a Preliminary Assessment of both the SGP and the ATC properties and recommended additional investigations for the ATC Property. In 1988 EPA conducted a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) screening site investigation of the ATC property.

In 1995, EPA conducted a screening site investigation of the SGP that included sampling and chemical testing of surface water and sediment from the Spokane River. EPA concluded that the samples did not reflect a release of contamination from the Site to the Spokane River. Consequently, EPA did not anticipate further investigation under CERCLA and referred the Site to the State for further consideration. DOT conducted further exploratory activities on the Site in 1997 as part of a proposed highway realignment of Trent Avenue. Their study showed the presence of coal-tar waste covering an area of two to three acres and extending below ground surface to a depth in excess of 40 feet.

The most heavily impacted soil was reportedly observed in the central portion of the SGP operation areas and near the refining process areas of the ATC property. No coal tar constituents were detected in the nearest city water supply well, the Nevada Street well, located approximately 8,500 feet north-northeast from the Site.

The Spokane County Health District (SCHD) completed a MTCA Site Hazard Assessment of the former SGP property in 1998 and assigned the property a hazard ranking of 3.

Avista Corp. conducted further investigations in 1997 and 1998 to evaluate the effect of the soil contamination in groundwater and to determine whether Site contaminants had migrated to the

Spokane River. The results of these studies further defined the lateral boundaries of the soil contamination identified in the DOT study. These studies also showed that soil contamination does not adversely affect groundwater outside the limits of soil contamination. Data from this investigation indicated that during the period of observation, groundwater flow appeared to be from the Spokane River toward the Site.

A supplemental Site Investigation was conducted by Avista Corp. in 1998 to evaluate the vertical extent of contamination, groundwater quality and hydraulic gradients in the vicinity of the Site, and to characterize the non-aqueous phase liquid (NAPL) found in the soil-contaminated area. The results further defined the lateral and vertical boundaries of the soil contamination at the Site. NAPL was encountered in soil during drilling up to 80 feet below ground surface (bgs). The groundwater outside of the area of soil contamination showed sporadic detectable levels of chemicals associated with the gas plant operations or coal tar processing

A focused Site Investigation was conducted by BNSF on the ATC property in 1999 to collect soil and groundwater data. Soil samples showed contamination in the ATC area. Groundwater samples collected from monitoring wells in the property did not detect the presence of constituents above cleanup levels.

Avista Corp. and BNSF conducted a second supplemental investigation. This supplemental study evaluated the vertical extent of contamination, groundwater quality, and hydraulic gradient. Findings of the study, in conjunction with the other previous site investigations, were used to determine the nature and extent of contamination. The Feasibility Study evaluated remedial technologies applicable to the Site.

2.3.1 Summary of Contamination

The conclusions from the Site Investigations are summarized as follows:

- Soils within the Site boundaries are impacted with SVOCs, PAHs, VOCs, and inorganic compounds.
- Based on visual observations, surface soil contamination was only present on the western portion of the ATC property and consisted of tar and cinder. The remaining soil contamination was covered by at least 2 feet of imported soil and gravel. The extent of contamination in some areas extended up to 80 feet bgs, and the majority of soil contamination is located below the groundwater table. The estimated volume of soil exceeding the total carcinogenic PAHs (cPAHs) soil cleanup level for the entire Site may be as much as 92,000 cubic yards.
- Constituents associated with the former manufactured gas processes and/or coal tar processing were not detected in the soil beyond the Site boundaries.
- Indicator hazardous substances (IHSs) developed by Ecology for soil consists of six PAHs, total cPAHs, TPH, carbazole, cyanide, arsenic, barium, lead, mercury, and selenium.
- Groundwater monitoring was focused on evaluating groundwater quality outside of the affected soil area. Groundwater within the non-aqueous phase liquid (NAPL)-affected

area was assumed to be contaminated for the purposes of the Remedial investigation (RI).

- Relatively few VOCs, SVOCs, PAHs, and inorganic constituents were detected in the groundwater samples analyzed, and those that were detected have not been detected with any consistency.
- Because groundwater inside the soil-impacted area is considered to be contaminated by the soil, IHSs developed by Ecology for groundwater are identical to the IHSs for soil.
- Natural attenuation parameters in groundwater indicated a rapid decrease in carbon dioxide, sulfate, and methane concentrations, and an increase in nitrogen concentrations with distance from the source. These trends support the conclusion that natural attenuation processes such as aerobic biodegradation and oxidation are occurring at the Site, which results in rapid destruction or transformation of IHSs present in Site groundwater.
- The limited extent of groundwater contamination detected outside of the impacted soil areas indicate that the source material has a low solubility, and any constituents that may be partitioning into groundwater are rapidly attenuating through natural physical, chemical, and biological processes (i.e., natural attenuation).
- No indicator constituents above cleanup levels were identified in sediment. Sediment is not an affected media for the Site.
- No indicator constituents above cleanup levels were identified in surface water. Surface water is not an affected media for the Site.
- Two wells were installed in the area of NAPL-affected soil to evaluate the physical and chemical characteristics of the NAPL; however, samples of NAPL could not be collected due to insufficient NAPL volume in the wells. The limited occurrence of NAPL in the product wells supports the conclusion that NAPL migration is very limited or not occurring.
- All detected parameters in the Spokane River sediments were well below the preliminary Washington State draft freshwater sediment quality values.
- The low frequency of criteria exceedance for groundwater, in conjunction with the lack of associated sediment impact, indicates that groundwater is not adversely impacting the Spokane River or any associated ecological receptors.

2.4 Remedial Actions

The remedial action consisted of the following:

2.4.1 Limited Soil Cap

A soil cap was placed over the exposed contaminated soils on the ATC property to prevent direct contact with the contaminated soil. The two existing structures on the ATC property (tin shed and block building) were removed down to surface level. The concrete pad of the block building was left in place. The capped area consists of approximately 8,500 square feet located on the western portion of the ATC property. This area was covered with a minimum of 2 feet of soil and then covered with select fill to bring the area to appropriate grades for storm water drainage.

2.4.2 Storm Water Management

Storm water management directed surface water away from known areas of contamination and abandonment of dry wells. Construction did not disturb the existing soil cover, and the design did not include any cuts into areas where contamination was identified.

2.4.2.1 Spokane River Properties (SRP)

Storm water management on property owned by the SRP consisted of two components. The first component was the abandonment of the six existing dry wells located adjacent to the concrete pad of the former Brown Building Materials office, and the second component consisted of directing surface runoff away from the contaminated soil areas to a swale located outside of the areas of contamination by adding fill material to provide for a proper grade.

2.4.2.2 American Tar Co. Property (ATC)

The contaminated materials on the ATC property are located in a topographically depressed area. Additional material was imported to bring the area up to grade after the soil cap was placed over the contaminated surface soil. The final grade was sloped to the eastern side of the ATC property to direct runoff away from the impacted area. An infiltration swale was constructed on the eastern side of the property to ensure onsite containment of storm water.

2.4.3 Streambank Bioengineering

The river embankment was stabilized with rock so that erosion or flooding does not cut back into the contaminated soil. Additional vegetation was planted along the shoreline to provide riparian corridor enhancement and some level of filtration between surface water and groundwater.

2.4.4 Monitoring Well Modifications

Monitoring wells (including two product monitoring wells) that are not included in the groundwater monitoring program were abandoned. Monitoring wells that are included in the groundwater monitoring program required wellhead modifications and protective bollards to coordinate with topographic changes proposed for the Site.

2.4.5 Remedial Action Summary

The remedial action at the Site was designed to contain contaminated soils and prevent their exposure to the environment. This method is effective in protecting human health and the environment when used in conjunction with institutional controls in the form of an Environmental Covenant. Environmental Covenants restrict activities that may re-expose contaminated soils at the site, and it ensures notification of future land owners that contaminated soils remain beneath the surface at the Site. Details of the Environmental Covenants recorded for the Site are available in Section 2.8.

2.5 Cleanup Levels

2.5.1 Groundwater

Ecology determined that the highest beneficial use of groundwater at this Site is drinking water. Exposure to hazardous substances via ingestion of drinking water and other domestic uses represents the reasonable maximum exposure, and standards developed to protect these uses will be protective of all other uses. Method B is the appropriate method for developing cleanup levels for groundwater. The Site is also located along the shores of the Spokane River. The Spokane River surface water level is generally higher in elevation than groundwater; this indicates that the Spokane River locally recharges to groundwater. During periods of peak runoff in the late spring to early summer, the groundwater gradient has been observed to be toward the Spokane River. Therefore, groundwater must not violate surface water cleanup levels at the point of compliance.

The Practical Quantitation Limits (PQL) for a substance may be greater than the health-based number. In such cases, the cleanup level becomes the PQL. If the PQL is lowered during cleanup of the Site or during periodic review, the regulatory limit will be adjusted downward.

Complete site soils and groundwater cleanup levels are available as Appendix 6.3.

Compliance groundwater monitoring is currently taking place at the Site. Samples collected on a semi-annual basis and analyzed for mercury, arsenic, weak acid dissociable (WAD) cyanide, and PAHs. These are the indicators that have exceeded cleanup levels at the conditional point of compliance. Cleanup levels for these contaminants are available in the table below.

Contaminant	Cleanup level (mg/L)
Arsenic	0.006
Mercury	0.0002
PAHs	0.01*
WAD Cyanide	0.1

*Toxicity Equivalent Concentration

2.5.2 Soil

The Site is currently zoned light industrial. However, because of surrounding urban revitalization in the area and preliminary plans for development expressed by SRP, Method B cleanup levels were selected for soil.

The soil concentration that is considered to be protective of groundwater is 100 times the Method B groundwater cleanup level. The most stringent of these criteria or the background concentration, whichever is higher, is the preliminary Method B cleanup level for soil.

A complete list of Site soil cleanup levels is available as Appendix 6.3.

2.6 Points of Compliance

2.6.1 Groundwater

A conditional point of compliance is established for groundwater that is as close as practical to the source of hazardous substances, not to exceed the property boundary. The locations of these conditional points of compliance are at MW 2-20, MW 2-40, MW 4-20, MW 7-90, and ATC07-20 (see Appendix 6.2).

2.6.2 Soil

The point of compliance for soils is in soils throughout the Site.

2.7 Groundwater Monitoring

Semi-annual compliance groundwater monitoring is conducted at the Site in accordance with the Site compliance monitoring plan. Samples are collected from monitoring wells MW2-20, MW2-40, MW4-20, MW7-90, and ATC7-20. All samples are analyzed for PAHs by EPA Method 8270 SIM, arsenic by EPA Method 200.8, mercury by EPA Method 245.1, and WAD cyanide by EPA Method SM4500-CN.

Compliance groundwater monitoring was initiated in 2006 when remedial activities were completed at the Site. A total of nineteen sampling events have been conducted in the five compliance monitoring wells, with 95 total samples collected, not including duplicates.

Since compliance monitoring was initiated, there have been periodic concentration of total mercury, total arsenic, WAD cyanide, and PAHs which exceeded Site cleanup levels. Of the 45 samples collected:

- One sample (from MW02-20) exceeded Site cleanup levels for total mercury with a maximum concentration of 0.000201 mg/L.
- Fourteen samples from four different wells exceeded Site cleanup levels for total arsenic with a maximum concentration of 0.0258 mg/L.
- Three samples (one from ATC7-20 and two from MW07-90) exceeded Site cleanup levels for dissolved arsenic with a maximum concentration of 0.0068 mg/L.
- Four samples (three from MW04-20 and one from MW07-90) exceeded Site cleanup levels for WAD cyanide with a maximum concentration of 0.0408 mg/L.
- Six samples (four from MW02-20 and two from MW07-90) exceeded the Site cleanup level for PAH Toxicity Equivalent Concentration with a maximum concentration of .00244 mg/L.

The most recent sampling event was conducted in March 2015. The analytical results from this sampling event are summarized as follows:

- Concentrations of carcinogenic and non-carcinogenic PAH compounds were reported below the laboratory reporting limit (RL) and Site cleanup level in all of the samples collected.
- Mercury and WAD cyanide were reported at concentrations below the RL and Site cleanup level in all of the samples collected.
- Total arsenic was reported above the RL in samples from MW04-20, ATC7-20, and MW07-90 at concentrations ranging from 0.0027 milligrams per liter (mg/L) in sample MW04-20 to 0.0067 mg/L in sample ATC7-20. Total arsenic reported in samples from ATC7-20 (0.0067 mg/L) and MW07-90 (0.0061 mg/L) is above the Site cleanup level of 0.006 mg/L.
- Dissolved arsenic was reported in one sample from ATC7-20 at a concentration of 0.0068 mg/L, which is above the Site cleanup level.

All compliance groundwater monitoring data is available as Appendix 6.4.

2.8 Environmental Covenants

Two Environmental Covenants were recorded for the following: BNSF property (recorded in 2003) and the SRP property (recorded in 2004). The Environmental Covenants impose the following limitations:

1) No groundwater may be taken for domestic, commercial, industrial, or any other purposes from the Property unless the groundwater removal is part of monitoring activities associated with an Ecology-approved compliance monitoring plan. No production well will be installed within the Property.

2) For the BNSF Property, the Site shall not be used for residential purposes.

3) Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil or groundwater that was contained as part of the Cleanup Action, or create a new exposure pathway, is prohibited without prior written approval by the Department of Ecology.

   For the BNSF Property, excavation of contaminated soil is prohibited, unless approved by Ecology, for the following exceptions: Excavation performed to repair, maintain, service or remove underground utility components, conduits, installations or channels; drilling, driving, or boring to install pilings for allowable and approved construction.

   For the SRP Property, excavation of soils to depths greater than two (2) feet on the Property is prohibited, unless approved in writing by Ecology. Excavations up to 2 feet are allowed without approval by Ecology.

   All contaminated soils and/or groundwater to be generated must be treated or disposed of according to state, federal, and local regulations. Workers conducting the approved excavations must use appropriate personal protective equipment as required by the Occupational Safety and Health Act (OSHA) and the Washington Industrial Safety and Health Act (WISHA).

4) Any activity on the Property that may interfere with the integrity of the Cleanup Action and continued protection of human health and the environment is prohibited, unless approved by Ecology. Examples of activities that are prohibited include:

   a) Activities that would disturb the cap or cover of the contaminated soils. Examples of such activities include but are not limited to the following: drilling; driving or boring to install pilings; placement of 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; and bulldozing or earthwork.
   b) Activities that would disturb or overload the storm water system.
   c) Excessive application of water for purposes such as irrigation, washing or rinse down pad, etc. Lawn irrigation at agronomic rates is not considered excessive application of water and is allowed.
   d) Use or storage of chemicals (e.g., solvents, detergents or other surfactants, etc.) that would result in the mobilization of contaminants in soils or groundwater contained on Site. Maintenance or construction activities at the Property that are required in the Cleanup Action are allowed.

5) No activity is allowed that may change the hydrogeologic conditions and that would cause the movement of contaminated groundwater to areas outside the impacted soil area.

6) Any construction of buildings or other improvements must address and mitigate, as necessary, potential vapor build-up due to the contamination left on Site. OSHA and WISHA requirements on potential vapor build-up must be adhered to.

7) The Owner of the Property must provide access and allow authorized persons to conduct groundwater monitoring and cover monitoring as required in the Cleanup Action.

8) The Owner of the Property must give thirty (30) days 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 unless the third party buyer agrees to the terms of the Environmental Covenants.

9) The Owner must restrict leases to uses and activities consistent with the Environmental Covenants and notify all ground lessees of the restrictions herein on the use of the Property.

10) The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of these Environmental Covenants. If Ecology, after public notice and comment approves the proposed change, the Environmental Covenants shall be amended to reflect the change.

11) The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Cleanup Action; to take samples, to inspect Cleanup Actions conducted at the Property, and to inspect records that are related to the Cleanup Action.

12) Per WAC 173-340-440(12), if the condition(s) requiring an institutional control no longer exist on the Property, the Owner may submit a request to Ecology that the Environmental Covenants or other restrictions be eliminated. The Environmental Covenants or other restrictions shall be removed, if Ecology, after public notice and opportunity for comment, concurs.

Copies of the Environmental Covenants for the Site are available as Appendices 6.5 and 6.6.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based on a Site visit conducted by Ecology on July 30, 2015, the Site remains vacant, and access is limited by security fencing, the Spokane River, and the steep embankment below the railroad tracks. There is evidence of public use of the property, as indicated by bike and foot paths bypassing the chain link security fence. Additionally, the chain link fence along Erie Street had multiple holes cut in it allowing access to the site. A photo log of the site visit is available as Appendix 6.7. Additionally, there was visible evidence of a camp occupied by several people beneath trees adjacent to the Spokane River at the northeast corner of the Site.

A compacted gravel surface serves as a cap for the Site and eliminates the human exposure pathways (ingestion, contact) to contaminated soils. The surface appears in acceptable condition, with no signs of excavation or other disturbance of the capped areas. No repair, maintenance, or contingency actions have been required. See photo log in Appendix 6.7.

The Environmental Covenants for the Site were recorded and remain active. These Environmental Covenants prohibit activities that will result in the release of contaminants, currently contained as part of the cleanup, without Ecology's approval, and prohibit any use of the property that is inconsistent with the Covenants. These Environmental Covenants serve to ensure the long term integrity of the surface cover.

The most recent groundwater sampling event detected total arsenic, dissolved arsenic, and WAD cyanide at concentrations exceeding MTCA Method B cleanup levels. The most recent groundwater sampling event did not detect total mercury or PAHs at concentrations exceeding MTCA Method B cleanup levels. Since the last periodic review was performed in 2010, there have been sporadic concentrations of total arsenic, dissolved arsenic, and WAD cyanide which exceeded Site cleanup levels. Since the last periodic review there have been no concentration of mercury or PAHs which exceeded Site cleanup levels. Sampling results since compliance monitoring began indicates that the remedy for the Site will be protective of human health.

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

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

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

MTCA cleanup levels have not changed since remedial actions were completed at the Site in 2006. Contamination remains at the Site above MTCA Method B 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 vacant. There are projected uses of the Site in the immediate future. The City of Spokane is planning to acquire portions of the Site as part of the Martin Luther King Jr. Way expansion project. As part of this project, Martin Luther King Jr. Way will be extended across a portion of the Site. As this project progresses, the limitations in the Environmental Covenants will prevent a use of the property that may expose hazardous materials contained at the Site as part of the remedial action. Spokane River Properties has plans to develop a portion of the site. Future developments will need to be consistent with the Environmental Covenants.

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 below MTCA Method B cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- The cleanup actions completed at the Site are currently protective of human health and the environment.

- Soils cleanup levels have not been met at the Site; however, the cleanup action has been determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, and the requirements for containment technologies have been met.

- Since the last periodic review concentrations of total arsenic, dissolved arsenic, and WAD cyanide have fluctuated above and slightly above and below Site groundwater cleanup levels. Since the last periodic review concentrations of mercury and PAHs have met Site groundwater cleanup levels. Fluctuations above cleanup levels, particularly in wells adjacent to the Spokane River, should be evaluated to determine if they are impacting the river.

- The Environmental 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.

- The property owner should fix the holes cut in the security fencing surrounding the property. Holes should be fixed, and the property owner should periodically inspect the fencing to ensure it has not been compromised.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Environmental Covenant continue to be met. Groundwater monitoring should continue as indicated by the compliance monitoring plan, but no additional remedial actions are required by the property owner at this time. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the surface cover 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

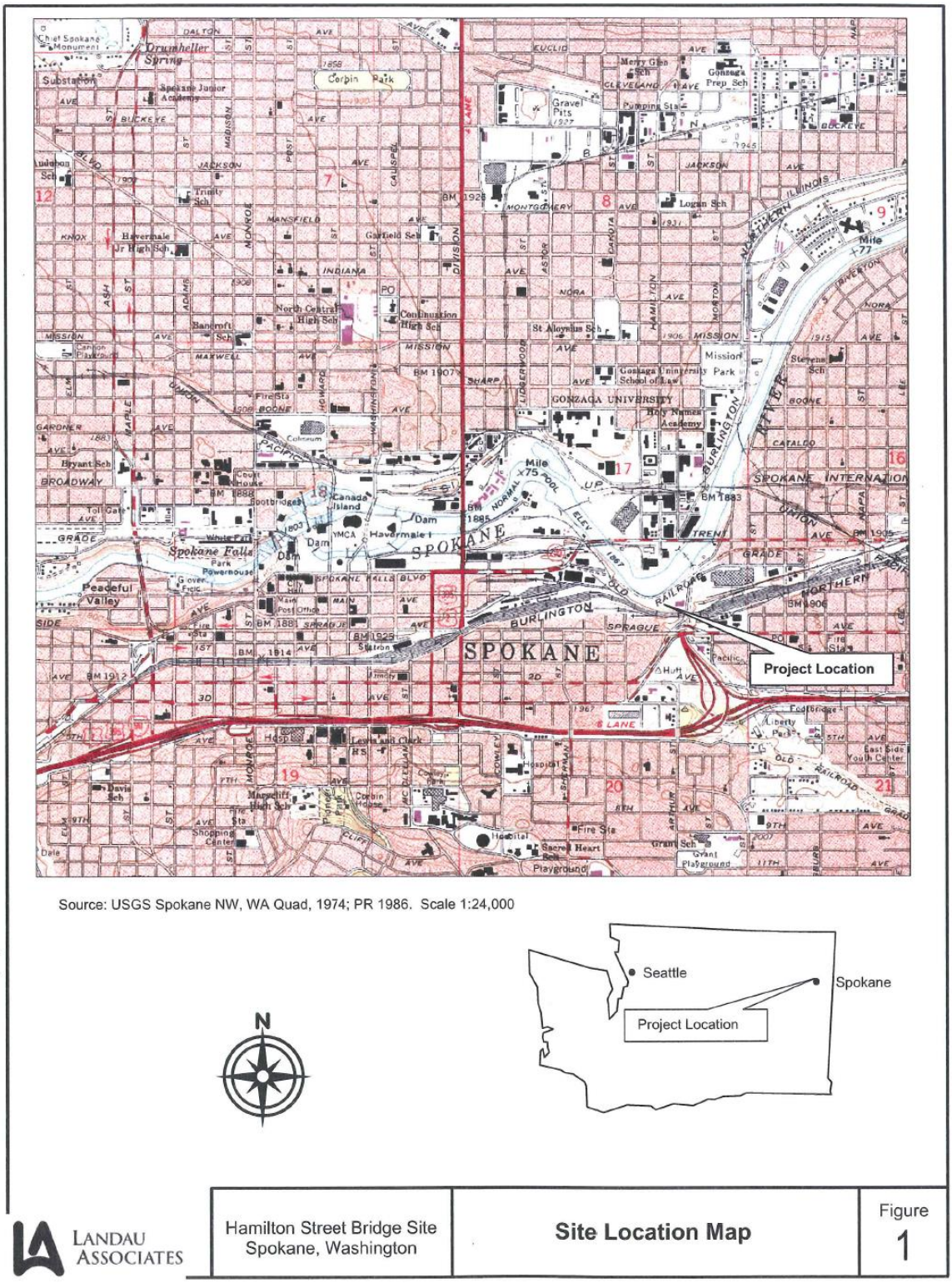
2003 Environmental Covenant;

2004 Environmental Covenant;

Ecology, 2015 Site Visit.

6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Plan

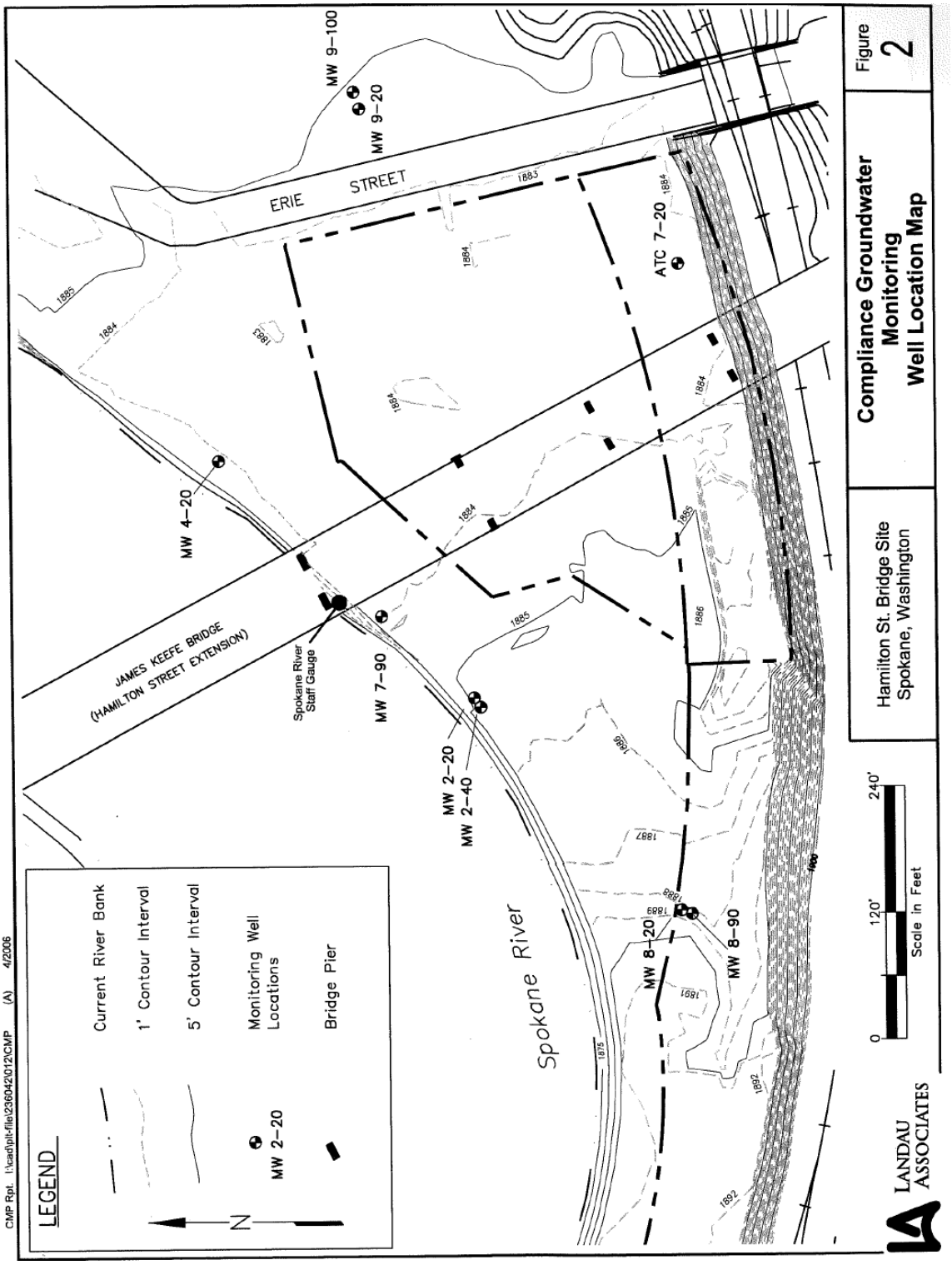


Figure 2
Compliance Groundwater Monitoring Well Location Map
Hamilton St. Bridge Site
Spokane, Washington
LANDAU ASSOCIATES
LEGEND
Current River Bank
1' Contour Interval
5' Contour Interval
Monitoring Well Locations
MW 2-20
Bridge Pier
N
0
120'
240'
Scale in Feet
ERIE STREET
JAMES KEEFE BRIDGE
(HAMILTON STREET EXTENSION)
Spokane River
Spokane River Staff Gauge
MW 4-20
MW 7-90
MW 2-20
MW 2-40
MW 8-20
MW 8-90
MW 9-100
MW 9-20
ATC 7-20
CMP Rpt. I:\cad\plt-file\236042\012\CMP (A) 4/2006

6.3 Cleanup Levels

TABLE 7. FINAL SITE CLEANUP LEVELS

INDICATOR	GROUND WATER (ug/L)			SOILS (mg/Kg)		
	PRELIMINARY METHOD B CLEANUP LEVEL	PQL	FINAL METHOD B CLEANUP LEVEL	PRELIMINARY METHOD B CLEANUP LEVEL	PQL	FINAL METHOD B CLEANUP LEVEL
TPH						
TPH-Diesel				200	6	200
TPH-Oil				200		200
TPH-Other				200	12	200
TPH-total	1000		1000			
Non-cPAHs						
Acenaphthene	643	0.1	643	64.3	0.072	64.3
Anthracene	4800	0.1	4800	480	0.073	480
Fluoranthene	90.2	0.3	90.2	9	0.073	9
Fluorene	640	0.1	640	64	0.059	64
Naphthalene	320	0.3	320	32	0.01	32
Pyrene	480	0.3	480	48	0.073	48
cPAHs						
benzo(a)anthracene	0.0028	0.1		0.00028	0.073	
benzo(a)pyrene	0.0028	0.1		0.00028	0.073	
benzo(b)fluoranthene	0.0028	0.1		0.00028	0.073	
benzo(k)fluoranthene	0.0028	0.1		0.00028	0.073	
chrysene	0.0028	0.1		0.00028	0.073	
dibenzo(ah)anthracene	0.0028	0.1		0.00028	0.073	
indeno(123-cd)pyrene	0.0028	0.1		0.00028	0.073	
Total cPAHs		0.1	0.1(A)		0.073	1(A)
SVOCs						
Carbazole	4.37	10	10	0.437	0.1	0.437
CYANIDE	5.2	10	10	0.52	0.24	0.52
METALS						
Arsenic	6	1	6	7	2.07	7
Barium	1120	2	1120	112	0.313	112
Lead	2.5	1	2.5	17	0.2	17
Mercury	0.012	0.2	0.2	0.07	0.058	0.07
Selenium	5	1	5	0.5	0.92	0.92

Final Cleanup Action Plan
Hamilton St. Bridge Site
Table 7 - Page 1

6.4 Ground Water Monitoring Data

TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW02-20	2/1/2006	0.0001 U	0.00100 U	--	0.00500 U
	8/9/2006*	0.0001 U	0.00100 U	--	0.0100 U
	2/13/2007*	0.0001 U	0.00108	--	0.0100 U
	9/6/2007*	0.000149 J	0.00105	--	0.0100 U
	2/13/2008*	0.0001 U	0.00140	--	0.0100 U
	9/10/2008	0.000152	**0.00957**	--	0.00500 U
	2/6/2009	0.0002 U	0.00100 U	--	0.00500 U
	8/20/2009	**0.000201**	0.00251	--	0.00500 U
	3/26/2010	0.0002 U	0.0001 U	--	0.00500 U
	8/18/2010	0.0002 U	0.001 U	--	0.00500 U
	2/4/2011	0.0002 U	0.001 U	0.001 U	0.00500 U
	9/23/2011	0.0002 U	0.00134	0.00140	0.00500 U
	2/29/2012	0.0002 U	0.0010 U	0.0010 U	0.00500 U
	9/6/2012	0.0002 U	0.0010	0.0010 U	0.00500 U
	2/21/2013	0.0002 U	0.0010 U	0.0010 U	0.0050 U
	9/6/2013	0.0002 U	0.0011	0.0010 U	0.0050 U
	3/21/2014	0.0002 U	0.0010 U	0.0010 U	0.0050 U
	9/10/2014	0.0002 U	0.0013	0.0015	0.0050 U
	3/3/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
MW02-40	2/1/2006	0.0001 U	0.00158	--	0.00500 U
	8/9/2006*	0.0001 U	0.00100 U	--	0.0100 U
	2/13/2007	0.0001 U	0.00155	--	0.0100 U
	9/6/2007	0.000171 J	0.00115	--	0.0100 U
	2/13/2008	0.0001 U	0.00167	--	0.0100 U
	9/10/2008	0.0001 U	0.00145	--	0.00500 U
	2/6/2009	0.0002 U	0.00125	--	0.00500 U
	8/20/2009	0.0002 U	0.00121	--	0.00500 U
	3/26/2010	0.0002 U	0.00113	--	0.00500 U
	8/18/2010	0.0002 U	0.00125	--	0.00500 U
	2/4/2011	0.0002 U	0.00126	0.00115	0.00500 U
	9/23/2011	0.0002 U	0.00140	0.00143	0.00500 U
	2/29/2012	0.0002 U	0.0013	0.0012	0.00500 U
	9/6/2012	0.0002 U	0.0017	0.0016	0.00500 U
	2/21/2013	0.0002 U	0.0023	0.0027	0.0050 U
	9/6/2013	0.0002 U	0.0012	0.0011	0.0050 U
	3/21/2014	0.0002 U	0.0013	0.0014	0.0050 U
	9/10/2014	0.0002 U	0.0016	0.0015	0.0050 U
	3/3/2015	0.0002 U	0.0020 U	0.0020 U	0.010 U
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW04-20	2/1/2006	0.0001 U	0.00354	--	**0.0408**
	8/10/2006*	0.0001 U	0.00372	--	0.0100 U
	2/13/2007*	0.0001 U	0.00500	--	0.0100 U
	9/6/2007*	0.000145 J	0.00393	--	0.0100 U
	2/13/2008	0.000152	**0.00726**	--	0.0100 U
	9/10/2008	0.000114	**0.0235**	--	0.00500 U
	2/6/2009	0.000118	0.00580	--	0.00850
	8/20/2009	0.0002 U	**0.0258**	--	0.00500 U
	3/26/2010	0.0002 U	0.00211	--	0.00500 U
	8/18/2010	0.0002 U	0.00528	--	0.00500 U
	2/4/2011	0.0002 U	0.00272	0.00252	**0.01920**
	9/23/2011	0.0002 U	0.00344	0.00338	0.00500 U
	2/29/2012	0.0002 U	0.0025	0.0026	0.00500 U
	9/6/2012	0.0002 U	0.0034	0.0016	0.00500 U
	2/21/2013	0.0002 U	0.0025	0.0026	0.0053
	9/6/2013	0.0002 U	0.0034	0.0034	0.0050 U
	3/21/2014	0.0002 U	0.0030	0.0029	0.0050 U
	9/10/2014	0.0002 U	0.0035	0.0037	0.0050 U
	3/3/2015	0.0002 U	0.0027	0.0026	**0.100**
ATC7-20	2/1/2006	0.0001 U	**0.00740**	--	0.00500 U
Duplicate	2/1/2006	0.0001 U	**0.00746**	--	0.00500 U
	8/10/2006*	0.0001 U	0.00481	--	0.0100 U
	2/13/2007	0.0001 U	**0.00716**	--	0.0100 U
	9/6/2007*	0.000147 J	0.00427	--	0.0100 U
	2/13/2008	0.0001 U	0.00549	--	0.0100 U
	9/10/2008	0.0001 U	0.00564	--	0.00500 U
	2/6/2009	0.000079	0.00469	--	0.00500 U
	8/20/2009	0.0002 U	**0.00959**	--	0.00500 U
	3/26/2010	0.0002 U	0.00423	--	0.00500 U
	8/18/2010	0.0002 U	0.00480	--	0.00500 U
	2/4/2011	0.0002 U	0.00598	0.00579	0.00500 U
	9/23/2011	0.0002 U	0.00523	0.00553	0.00500 U
	2/29/2012	0.00025 U	0.0051	0.0051	0.00500 U
	9/6/2012	0.0002 U	0.0059	0.0055	0.00500 U
	2/21/2013	0.0002 U	0.0053	0.0058	0.0050 U
	9/6/2013	0.0002 U	0.0043	0.0044	0.0050 U
	3/21/2014	0.0002 U	0.0052	0.0059	0.0050 U
	9/10/2014	0.0002 U	0.0048	0.0048	0.0050 U
	3/3/2015	0.0002 U	**0.0067**	**0.0068**	0.010 U
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

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TABLE 3
SUMMARY OF GROUNDWATER CHEMISTRY DATA
ARSENIC, CYANIDE AND MERCURY
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Total Mercury (mg/L)	Total Arsenic (mg/L)	Dissolved Arsenic (mg/L)	WAD Cyanide(a) (mg/L)
MW07-90	2/1/2006	0.0001 U	**0.00703**	--	0.00500 U
	8/9/2006	0.0001 U	0.00571	--	0.0100 U
Duplicate	8/9/2006	0.0001 U	**0.00600**	--	0.0100 U
	2/13/2007	0.0001 U	0.00547	--	0.0100 U
Duplicate	2/13/2007	0.0001 U	0.00517	--	0.0100 U
	9/6/2007	0.000152 J	**0.00796**	--	0.0100 U
Duplicate	9/6/2007	0.000173 J	**0.00815**	--	0.0100 U
	2/13/2008	0.0001 U	**0.00725**	--	0.0100 U
Duplicate	2/13/2008	0.0001 U	**0.00907**	--	0.0100 U
	9/10/2008	0.0001 U	0.00508	--	0.0051
Duplicate	9/10/2008	0.0001 U	0.00530	--	0.0058
	2/6/2009	0.0002 U	0.00477	--	0.00500 U
Duplicate	2/6/2009	0.0002 U	0.00484	--	0.00500 U
	8/20/2009	0.0002 U	0.00469	--	0.00500 U
Duplicate	8/20/2009	0.0002 U	0.00466	--	0.00670
	3/26/2010	0.0002 U	0.00443	--	0.00500 U
Duplicate	3/26/2010	0.0002 U	0.00443	--	0.00500 U
	8/18/2010	0.0002 U	0.00492	--	0.00500 U
Duplicate	8/18/2010	0.0002 U	0.00474	--	0.00500 U
	2/4/2011	0.0002 U	0.00490	0.00489	0.00500 U
Duplicate	2/4/2011	0.0002 U	0.00524	0.00498	0.00500 U
	9/23/2011	0.0002 U	0.00479	0.00530	0.00500 U
Duplicate	9/23/2011	0.0002 U	0.00503	0.00515	0.00500 U
	2/29/2012	0.0002 U	0.0048	0.0050	0.00500 U
Duplicate	2/29/2012	0.0002 U	0.0047	0.0049	0.00500 U
	9/6/2012	0.0002 U	0.0057	0.0055	0.00500 UJ
Duplicate	9/6/2012	0.0002 U	0.0052	0.0054	**0.03000 J**
	2/21/2013	0.0002 U	0.0049	0.0045	0.0050 U
Duplicate	2/21/2013	0.0002 U	0.0046	0.0049	0.0050 U
	9/6/2013	0.0002 U	0.0055	0.0057	0.0050 U
Duplicate	9/6/2013	0.0002 U	0.0055	0.0054	0.0050 U
	3/21/2014	0.0002 U	0.0051	0.0055	0.0050 U
Duplicate	3/21/2014	0.0002 U	0.0049	0.0055	0.0050 U
	9/10/2014	0.0002 U	**0.0065**	**0.0060**	0.0050 U
Duplicate	9/10/2014	0.0002 U	**0.0060**	**0.0062**	0.0050 U
	3/3/2015	0.0002 U	0.0058	0.0055	0.010 U
Duplicate	3/3/2015	0.0002 U	**0.0061**	0.0055	0.010 U
Site Cleanup Level (b)		0.0002	0.006	0.006	0.01

Notes:

Duplicate sample ID = MW20-60

Concentrations in bold and boxed are at or above site cleanup levels.

* Sample field filtered

NA = not analyzed.

NS = not specified.

U = Indicates the compound was analyzed for, but was not detected at the given reporting limit.

UJ = The analyte was not detected in the sample; the reported sample detection limit is an estimate.

J = Indicates the compound was detected, the reported sample concentration is an estimate.

(a) Weak Acid Dissociable (WAD) Cyanide analyzed by SM4500-CN-I.

(b) Final Cleanup Action Plan (Ecology 2001).

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TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo (g,h,i) perylene	Pyrene	Benzo (a) anthracene(b)	Chrysene(b)	Benzo (b) fluoranthene(b)	Benzo (k) fluoranthene(b)	Benzo (a) pyrene(b)	Indeno (1,2,3-cd) pyrene(b)	Dibenzo (a,h) anthracene(b)	
MW02-20	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.107 J	0.126 J	0.100 UJ	1.05	0.100 UJ	0.100 UJ	0.126 J	0.100 UJ	0.100 UJ	**0.13**
	2/13/2008	0.146	NA	0.100 U	0.100 U	0.117	0.100 U	0.243	0.126	1.05	1.04	1.50	0.932	1.05	0.748	1.16	0.893	0.816	0.272	**1.30**
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0943	0.100 U	0.100 U	0.09
	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.095	0.100 U	0.438	0.229 U	0.410	0.390	0.410	0.724	0.267 U	0.543 U	0.219 U	0.114 U	**0.66**
	8/20/2009	0.500 U	NA	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	1.32	1.35	1.24	1.30	1.57	2.92	0.500 U	1.89	1.16	0.500 U	**2.44**
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0096 UJ	0.0096 UJ	0.012 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.0096 UJ	0.019 UJ	0.0096 UJ	0.0096 UJ	ND
	9/6/2013	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	0.0958 U	ND
	3/21/2014	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	ND
	9/10/2014	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	0.0914 U	ND
	3/3/2015	0.083 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	0.0830 U	ND
		Toxicity Equivalency Factor(d)											0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																		
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo (g,h,i) perylene	Pyrene	Benzo (a) anthracene(b)	Chrysene(b)	Benzo (b) fluoranthene(b)	Benzo (k) fluoranthene(b)	Benzo (a) pyrene(b)	Indeno (1,2,3-cd) pyrene(b)	Dibenzo (a,h) anthracene(b)	Toxicity Equivalent Concentration(c)
MW02-40	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	ND
	2/13/2007	0.100 U	NA	0.100 U	0.115	0.375	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.125	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	9.39	26.9 J	5.82	0.858	0.179	0.123	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0943 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0120	0.0100 U	0.013 U	0.0110	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	16 J	21 J	0.070 J	34 J	11	0.50	3.9 J	0.30 J	0.11 J	0.0097 UJ	0.11 J	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.019 UJ	0.0097 UJ	0.0097 UJ	ND
	9/6/2013	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0962 U	0.0952 U	0.0962 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	ND
	3/21/2014	17.0	31.8	1.85	42.3	14.5	2.82	0.625	0.115	0.0961 U	0.0961	0.154	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	0.0961 U	ND
	9/10/2014	0.176	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	ND
	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
		Toxicity Equivalency Factor(d)											0.100	0.010	0.100	0.100	1.000	0.100	0.100	0.1
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	

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TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																			Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo (g,h,i) perylene	Pyrene	Benzo (a) anthracene(b)	Chrysene(b)	Benzo (b) fluoranthene(b)	Benzo (k) fluoranthene(b)	Benzo (a) pyrene(b)	Indeno (1,2,3-cd) pyrene(b)	Dibenzo (a,h) anthracene(b)		
ATC7-20	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
Duplicate	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 U		ND
	8/10/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	2/13/2007	0.100 U	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ		ND
	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	2/6/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U		ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U		ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.179	0.389	0.105	0.105 U	0.105 U	0.116									ND
	9/23/2011	0.263	0.105 U	0.295	0.253	0.105 U	0.179		0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.020 U	0.0100 U	0.0096 U		ND
	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U		ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.019 UJ	0.0095 UJ	0.0096 UJ		ND
	2/21/2013	0.0095 UJ	0.0095 UJ	0.012 UJ	0.0095 UJ	0.0095 U	0.0095 U	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0095 UJ	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U		ND
	9/6/2013	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0957 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U		ND
	3/21/2014	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0949 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U		ND
	9/10/2014	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.0903 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U		ND
	3/3/2015	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U									
													Toxicity Equivalency Factor(d)								
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	0.100	0.010	0.100	0.100	1.000	0.100	0.100		0.1

TABLE 4
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POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo (g,h,i) perylene	Pyrene	Benzo (a) anthracene(b)	Chrysene(b)	Benzo (b) fluoranthene(b)	Benzo (k) fluoranthene(b)	Benzo (a) pyrene(b)	Indeno (1,2,3-cd) pyrene(b)	Dibenzo (a,h) anthracene(b)	
MW07-90	2/1/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/9/2006	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 UJ	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 UJ	0.107	0.01
Duplicate	8/9/2006	0.100 U	NA	0.100 U	0.107	0.117	0.136	0.165	0.146	0.155	0.214 J	0.204 J	0.194	0.117	0.214 J	0.175	0.194	0.214 J	0.184	**0.29**
	2/13/2007	0.100 U	NA	0.100 U	0.117	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/13/2007	0.100 U	NA	0.100 U	0.126	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/6/2007	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	9/6/2007	0.100 UJ	NA	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UJ	ND
	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/13/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	9/10/2008	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/6/2009	0.100 U	NA	0.100 U	0.396 J	0.0966	0.100 U	0.100 U	0.100 U	0.100 U	0.105 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.124 U	0.124 U	ND
Duplicate	2/6/2009	0.100 U	NA	0.100 U	0.100 UJ	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	8/20/2009	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	3/26/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	8/18/2010	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
Duplicate	2/4/2011	0.100 U	NA	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	ND
	9/23/2011	0.105 UJ	0.105 UJ	0.105 UJ	0.105 U	0.105 U	0.105 UJ	0.105 UJ	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
Duplicate	9/23/2011	1.13 J	0.484 J	1.64 J	0.832 J	0.105 U	0.295 J	0.442 J	0.126	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	0.105 U	ND
		Toxicity Equivalency Factor(d)											0.100	0.010	0.100	0.100	1.000	0.100	0.100	
Site Cleanup Level (e)		320	NS	NS	643	640	NS	4600	90.2	NS	480		--	--	--	--	--	--	--	0.1

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TABLE 4
SUMMARY OF GROUNDWATER CHEMISTRY DATA
POLYCYCLIC AROMATIC HYDROCARBONS
Hamilton Street Bridge Site
Spokane, Washington

Well	Date Sampled	Polycyclic Aromatic Hydrocarbons (µg/L)(a)																	Toxicity Equivalent Concentration(c)
		Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Benzo [g,h,i] perylene	Pyrene	Benzo (a) anthracene(b)	Chrysene(b)	Benzo (b) fluoranthene(b)	Benzo (k) fluoranthene(b)	Benzo (a) pyrene(b)	Indeno (1,2,3-cd) pyrene(b)	Dibenzo (a,h) anthracene(b)	
MW07-90 Contin.	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
Duplicate	2/29/2012	0.0096 U	0.0096 U	0.013 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.019 U	0.0096 U	0.0096 U	ND
	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
Duplicate	9/6/2012	0.0100 U	0.0100 U	0.013 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.020 U	0.0100 U	0.0100 U	ND
	2/21/2013	0.0097 UJ	0.010	0.013 UJ	0.014 J	0.0097 U	0.0097 U	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.0098 UJ	0.0097 UJ	0.0097 UJ	0.0097 UJ	0.019 UJ	0.0097 UJ	0.0097 UJ	ND
Duplicate	2/21/2013	0.0098 UJ	0.0098 UJ	0.013 UJ	0.0098 UJ	0.0098 UJ	0.0098 U	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.0098 UJ	0.020 UJ	0.0098 UJ	0.0098 UJ	ND
	9/6/2013	0.0974 U	0.0974 U	0.097 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	0.0974 U	ND
Duplicate	9/6/2013	0.0977 U	0.0977 U	0.098 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	0.0977 U	ND
	3/21/2014	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	0.0959 U	ND
Duplicate	3/21/2014	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0952 U	0.0899 U	0.292 J	0.0899 U	0.0899 U	0.102	0.0899 U	0.0899 U	**0.1J**
	9/10/2014	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0940	0.0899 U	0.0899 U	0.0899 U	0.0899 U	0.0896 U	0.0896 UJ	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	ND
Duplicate	9/10/2014	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.0896 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	ND
Duplicate	3/3/2015	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U	0.083 U								
											Toxicity Equivalency Factor(d)		0.100	0.010	0.100	0.100	1.000	0.100	0.100
Site Cleanup Level (e)		320	NS	NS	NS	643	640	NS	4800	90.2	NS	480	--	--	--	--	--	--	--	0.1

Notes:
NA = not analyzed. NS = Not Specified
U = Indicates the compound was analyzed for, but was not detected at the given detection limit. Values may be rounded.
J = Indicates the compound was detected, the reported sample concentration is an estimate.
Concentrations in bold and boxed are at or above site cleanup levels.
Duplicate Sample ID = MW20-60
(a) Polycyclic Aromatic Hydrocarbons (PAH) analyzed by EPA Method 8270-SIM.
(b) Carcinogenic PAH (cPAH).
(c) Calculated in accordance with WAC 173-340-708(8).
(d) Toxicity Equivalency Factors for cPAHs, WAC 173-340 (Ecology 2007).
(e) Final Cleanup Action Plan (Ecology 2001).

6.5 Spokane River Properties Environmental Covenant

WHEN RECORDED, RETURN TO:

WITHERSPOON, KELLEY, DAVENPORT & TOOLE P.S.
Attn: Stanley R. Schultz
422 West Riverside, Suite 1100
Spokane, Washington 99201

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ORIGINAL FILED OR RECORDED

SEP - 9 2004

COUNTY AUDITOR
SPOKANE COUNTY WA

SEP - 9 2004

Document Title:	Restrictive Covenant
Grantor:	Washington State Department of Ecology
Grantee:	Spokane River Properties, Limited
Legal Description:	Ptn of SE 1/4 Sec 17, Tshp 25N, Range 43 EWM; and Ptn of Tracts A and B, Block 19 DENNIS AND BRADLEY'S ADDITION.
Assessor's Property Tax Parcel/Account No.:	17534.0575; 17534. 0554(formerly 0541, 0542) 17534.0006; 17534.0506; 71534.0516

RESTRICTIVE COVENANT

The property that is the subject of this Restrictive Covenant is the subject of a remedial action under Chapter 70.105D.RCW. The work that will be done to clean up the property and conduct long-term operation and maintenance, hereafter the "Cleanup Action", is described in Consent Decree No. 02205445-0 and in attachments to the Consent Decree and in documents referenced in the Consent Decree. This Restrictive Covenant is required by the Washington State Department of Ecology (Ecology) under Ecology's rule WAC 173-340-440 because the Cleanup Action on the Site will result in residual soil and ground water concentrations of Total Petroleum Hydrocarbons (TPH), Polycyclic Aromatic Hydrocarbons (PAHs), Carbazole, Cyanide, Arsenic, Barium, Lead, and Selenium which exceed Method A or Method B residential cleanup levels.

The undersigned, Spokane River Properties, Limited, is the fee owner of real property, hereafter "the Property", in Spokane County, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant and incorporated herein by reference.

Spokane River Properties, Limited, 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. No groundwater may be taken for domestic, commercial, industrial, or any other purposes from the Property unless the groundwater removal is part of monitoring activities associated with an Ecology approved compliance monitoring plan. No production well will be installed within the Property.

Section 2. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil or ground water that was contained as part of the Cleanup Action, or create a new exposure pathway, is prohibited without prior

written approval by the Department of Ecology. In the case of an emergency, Ecology shall be contacted within 48 hours of the incident.

Specifically, excavation of soils to depths greater than two (2) feet on the Property is prohibited, unless approved in writing by Ecology. All contaminated soils and/or ground water to be generated must be treated or disposed of according to state, federal, and local regulations. Workers conducting the approved excavations must use appropriate personal protective equipment as required by the Occupational Safety and Health Act (OSHA) and the Washington Industrial Safety and Health Act (WISHA). Excavations up to 2 feet are allowed without approval by Ecology

Section 3. Any activity on the Property that may interfere with the integrity of the Cleanup Action and continued protection of human health and the environment is prohibited, *unless approved by Ecology*. Examples of activities that are prohibited include:

a. Activities that would disturb the cap or cover of the contaminated soils.Examples of such activities include but are not limited to the following: drilling; driving or boring to install pilings; placement of 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; and bulldozing or earthwork.

b. Activities that would disturb or overload the stormwater system.

c. Excessive application of water for purposes such as irrigation, washing/rinse down pad, etc. Lawn irrigation at agronomic rates is not considered excessive application of water and is allowed.

d. Use or storage of chemicals (e.g., solvents, detergents or other surfactants, etc.) that would result in the mobilization of contaminants in soils or ground water contained on Site.

Maintenance or construction activities at the Property that are required in the Cleanup Action are allowed.

Section 4. No activity is allowed that may change the hydrogeologic conditions and that would cause the movement of contaminated ground water to areas outside the impacted soil area.

Section 5. Any construction of buildings or other improvements must address and mitigate, as necessary, potential vapor build-up due to the contamination left on Site. OSHA and WISHA requirements on potential vapor build up must be adhered to.

Section 6. The Owner of the Property must provide access and allow authorized persons to conduct ground water monitoring and cover monitoring as required in the Cleanup Action.

Section 7. 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 unless the third party buyer agrees to the terms of the Restrictive Covenant.

Section 8. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all *ground* lessees of the restrictions herein on the use of the Property.

Section 9. 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. If Ecology, after public notice and comment approves the proposed change, the restrictive covenant shall be amended to reflect the change.

Section 10. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Cleanup Action; to take samples, to inspect Cleanup Actions conducted at the Property, and to inspect records that are related to the Cleanup Action.

Section 11. Per WAC 173-340-440(12), if the condition(s) requiring an institutional control no longer exist on the Property, the Owner may submit a request to Ecology that the Restrictive Covenant or other restrictions be eliminated. The Restrictive Covenant or other restrictions shall be removed, if Ecology, after public notice and opportunity for comment, concurs.

SPOKANE RIVER PROPERTIES, LIMITED

By: Richard E Braun

Its: Partner

9-7-2004

[DATE SIGNED]

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STATE OF WASHINGTON)
) ss.
COUNTY OF Spokane)

On this day, Richard E. Brown, personally appeared before me, known to me to be the person who appeared before me, and said person acknowledged that he/she signed this instrument and acknowledged it to be his/her free and voluntary act for the uses and purposes mentioned in this instrument.

GIVEN UNDER MY HAND and official seal this 7th day of August, 2001.

STACY BJORDAHL NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES MAY 10, 2007

Notary Public
My commission Expires: 5-10-2007

Title Order No. 94930

EXHIBIT A

That portion of the Southeast Quarter of Section 17, Township 25 North, Range 43 East of the Willamette Meridian, and that portion of Tracts A, B, and Block 19 of DENNIS AND BRADLEY'S ADDITION, as per plat recorded in Volume "A" of Plats, pages 160 and 161, records of Spokane County, and including portion of the river bed of the Spokane River, all described as follows;

BEGINNING at the Southeast corner of Lot 19, of said Block 19;
Thence Southerly along the East line of said Tract B, to the Northerly right of way line of the Northern Pacific Railroad;
Thence Westerly along said right of way line to an intersection with the Southerly right of way line of the Chicago, Milwaukee, and Puget Sound Railway Company, as conveyed by Deed recorded September 21, 1911 in Volume 283 of Deeds, page 360, records of Spokane County;
Thence along said right of way line to a point radial to and Southwesterly of the Southeast corner of that certain property described in Deed recorded November 23, 1909 under Spokane County Auditor's File No. 260838;
Thence Northeasterly to the said Southeasterly corner;
Thence Northwesterly along the East line of said Deed, 42.00 feet to the Southerly right of way line of Superior Street;
Thence Northeasterly along said right of way to the Easterly line of Tract A as deeded and recorded in Document Number 8112280121, records of Spokane County;
Thence Southeasterly, Easterly and Northeasterly along said line to an intersection with the Southwesterly line of that certain property as shown on Record of Survey recorded in Spokane County Auditor's File No. 8108240202, extended Northwesterly;
Thence Southeasterly from said intersection and said extended line and along said Southwesterly line to the Southerly most corner of Lot 9, said Block 19;
Thence Southerly and Southwesterly along the East line of said Block 19 to the Point of Beginning;

EXCEPT that portion deed to the State of Washington for piers and footings of the James Keefe Bridge, recorded in Spokane County Auditor's File No. 8206090066, records of Spokane County;

Situate in the City of Spokane, County of Spokane, State of Washington.

6.6 BNSF Environmental Covenant

COPY
ORIGINAL FILED OR RECORDED

JAN 29 2003

COUNTY AUDITOR
SPOKANE COUNTY WA

COPY

WHEN RECORDER RETURN TO:
Craig S. Trueblood
Preston|Gates|Ellis, LLP
925 Fourth Ave., Suite 2900
Seattle, WA 98104-1158

RESTRICTIVE COVENANT

Reference No. of Related Documents:

Grantor: The Burlington Northern and Santa Fe Railway Company
P.O. Box 961039
2500 Lou Menke Drive, 3rd Floor
Fort Worth, TX 96131-2828

Grantee: Washington Department of Ecology
4601 North Monroe, Suite 202
Spokane, WA 99205-1295

Abbreviated Legal Description: A portion of the SW¼ SE¼ SE¼ and the SE¼ SW ¼ SE¼, all in Section 17, Township 25 North, Range 43 East, W.M, County of Spokane, State of Washington, described more fully in Attachment A

Assessor's Property Tax Parcel Account Number(s): 35173.1510

RESTRICTIVE COVENANT

The property that is the subject of this Restrictive Covenant has been the subject of remedial action under Chapter 70.105D RCW. The work will be done to clean up the property and conduct long-term operation and maintenance (hereafter the "Cleanup Action") is described in the Consent Decree ("Decree") entered in State of Washington, Department of Ecology v. Avista Corporation and The Burlington Northern and Santa Fe Railway Company, Spokane County Superior Court Cause No. 02205445-0, and in attachments to the Decree and in documents referenced in the Decree. This Restrictive Covenant is required by the Department of Ecology under WAC 173-340-440 because the Cleanup Action on the Site will result in residual soil and ground water concentrations of Total Petroleum Hydrocarbons (TPH), Polycyclic Aromatic Hydrocarbons (PAH), Carbazole, Cyanide, Arsenic, Barium, Lead, and Selenium which exceed Method A or Method B residential cleanup levels.

The undersigned, The Burlington Northern Railroad and Santa Fe Railway Company ("BNSF"), is the fee owner of real property (hereafter "the Property") in the County of Spokane, State of Washington, that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant and incorporated herein by reference.

BNSF 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 No groundwater may be taken for domestic, commercial, industrial, or any other purposes from the Property unless the ground water removal is part of monitoring activities associated with an Ecology-approved compliance monitoring plan. No production well will be installed within the Property.

Section 2 The Site shall not be used for residential purposes.

Section 3 Any activity on the Property that results in the release or exposure to the environment of the contaminated soil or groundwater that was contained as part of the Cleanup Action, or that creates a new exposure pathway, is prohibited without prior written approval by the Department of Ecology.

a. Excavation of contaminated soil is prohibited, unless approved by Ecology, for the following exceptions:

i. Excavation performed to repair, maintain, service or remove underground utility components, conduits, installations or channels.

ii. Drilling, driving, or boring to install pilings for allowable and approved construction.

b. All contaminated soil and/or ground water to be generated from approved excavation activities must be treated or disposed of according to all state, federal and local regulations.

c. Workers conducting approved excavations must use appropriate personal protective equipment as required by the Occupational Safety and Health Act (OSHA) and the Washington Industrial Safety and Health Act (WISHA).

Section 4 The Owner of the Property shall adhere to the requirements of the Decree and the Cleanup Action Plan (CAP) issued by the Department of Ecology for the Property. Any activity on the Property that may interfere with the integrity of the Cleanup Action and continued protection of human health and the environmental is prohibited. Examples of activities that are prohibited include:

a. Activities that would disturb the cap or cover of the contaminated soils, such as drilling, digging, placing any objects or using any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, or bulldozing or earthwork.

b. Activities that would disturb or overload the stormwater system.

c. Excessive applications of water for purposes such as irrigation, washing/rinse down pad, etc.

d. Use or storage of chemicals (e.g., solvents, detergents or other surfactants, etc.) that result in the mobilization of contaminants in soils or ground water contained on Site.

This restriction recognizes that maintenance or construction activities at the Property conducted in accordance with the CAP requirements shall not constitute activities that interfere with the Cleanup Action.

Section 5 No activity is allowed that may change the hydrogeologic conditions and cause the movement of contaminated ground water to areas outside the impacted soil area.

Section 6 Any construction over the Site (i.e., buildings and concrete surfaces, pavement, etc.) must address and mitigate, as necessary, potential vapor build-up due to contamination left on Site.

Section 7 The Owner of the Property must give thirty (30) day advance written notice to the Department of Ecology of any conveyance of 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 Cleanup Action on the Property.

Section 8 The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions herein on the use of the Property.

Section 9 The Owner must notify and obtain approval from the Department of Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. The Department of Ecology may approve an inconsistent use only after public notice and comment.

Section 10 The Owner shall allow authorized representatives of the Department of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Cleanup Action; to take samples, to inspect Cleanup Actions conducted at the Property, and to inspect records that are related to the Cleanup Action.

Section 11 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 the Department of Ecology, after public notice and comment, consents in writing.

THE BURLINGTON NORTHERN
AND SANTA FE RAILWAY COMPANY

David P. Schneider Dated: 1-21-03
David P. Schneider

STATE OF Texas)
) ss.
COUNTY OF Tarrant)

I certify that I know or have satisfactory evidence that David P. Schneider is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Gen. Director Real Estate of The Burlington Northern and Santa Fe Railway Company, a Delaware corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: 1-21-03

Tammy K. Herndon
Notary Public
Print Name Tammy K. Herndon
My commission expires 10-25-03

TAMMY K. HERNDON
Notary Public
STATE OF TEXAS
My Comm. Exp. 10/25/2003

(Use this space for notarial stamp/seal)

ATTACHMENT A

That portion of the SW¼ SE¼ SE¼ and the SE¼ SW ¼ SE¼, all in Section 17, Township 25 North, Range 43 East, W.M, County of Spokane, State of Washington, described as follows: Beginning at a point in the south production of the west line of Erie Street distant 60 feet northerly, measured at right angles, from the center line of the most northerly track as constructed on July 15, 1968; thence westerly in a straight line 230 feet to a point distant 40 feet northerly, measured at right angles from said center line; thence westerly parallel with said center line to a point distant 500 feet west, measured at right angles, from said produced street line; thence north parallel with said produced street line to a point distant 200 feet northerly, measured at right angles, from the center line of the main track of The Burlington Northern and Santa Fe's Railway Company's main line as originally constructed; thence easterly parallel with said original center line to said produced street line; thence south along said produced street line to the point of beginning.

6.7 Photo Log

Photo 1: Hamilton Street Bridge Site - from the west

Photo 2: Fence between Erie St and Hamilton Street Bridge Site - from the south

Photo 3: Hole cut in chain link fence along eastern edge of Site - from the east

Photo 4: Another hole cut in chain link fence along eastern edge of Site – from the east

Photo 5: Stabilization along southern bank of Spokane River - from the west

Photo 6: Site Groundwater Monitoring Wells – from the southeast