

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
and)

Civil No. 4-80-469

STATE OF MINNESOTA, by its Attorney General)
Hubert H. Humphrey, III, its Department of Health,)
and its Pollution Control Agency,)
)
Plaintiff-Intervenor,)

vs.)

AMENDED CONSENT DECREE

REILLY TAR & CHEMICAL CORPORATION;)
HOUSING AND REDEVELOPMENT)
AUTHORITY OF ST. LOUIS PARK; OAK PARK)
VILLAGE ASSOCIATES; RUSTIC OAKS)
CONDOMINIUM INC.; and PHILLIP'S)
INVESTMENT CO.,)
)
Defendants,)

and)

CITY OF ST. LOUIS PARK,)

vs.)

REILLY TAR & CHEMICAL CORPORATION,)
)
Defendant,)

and)

CITY OF HOPKINS,)

Plaintiff-Intervenor,)

vs.)

REILLY TAR & CHEMICAL CORPORATION,)
)
Defendant,)

_____)

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I. BACKGROUND

A. From 1917 until 1972, Defendant Reilly Tar & Chemical Corporation (“Reilly Tar”) was engaged in the business of coal tar distillation and pressure treatment of wood products at its plant site located at 7200 Walker Street, St. Louis Park, Hennepin County, Minnesota (“the Site”).

B. On or about October 2, 1970, the State of Minnesota (“the State”), through its Pollution Control Agency (“MPCA”), and the City of St. Louis Park (“the City”), filed a complaint in the State of Minnesota, Hennepin County District Court, alleging violations by Reilly Tar of state and municipal pollution control laws and regulations. State of Minnesota by the Minnesota Pollution Control Agency, and the City of St. Louis Park v. Reilly Tar & Chemical Corporation, Hennepin County District Court, Civil File No. 670767 (“Hennepin County Lawsuit”).

C. On April 14, 1972, the City agreed to purchase the Site from Reilly Tar. The details regarding the conveyance of the Site to the City, dismissal of the City’s claims in the Hennepin County Lawsuit, and conveyances of portions of the Site to Oak Park Village Associates, Rustic Oaks Condominium, Inc., and Philip’s Investment Co. are set forth in the September 4, 1986 Consent Decree (“1986 Consent Decree”) in this matter.

D. In April 1978, the State moved to amend its complaint in the Hennepin County Lawsuit, alleging that polycyclic aromatic hydrocarbons (“PAH”) contained in Reilly Tar’s coal tar and creosote wastes had entered the ground water beneath the Site and that their further migration threatened to contaminate aquifers relied on for public water supply. At the same time, the City moved to intervene as a plaintiff. The motions were granted and interlocutory review was denied by the Minnesota Supreme Court. Reilly Tar subsequently tendered defense of the action to the City and counterclaimed against the City, asserting that the City was responsible for addressing the issue pursuant to the hold harmless agreement made at the time of its purchase of the Site.

E. On or about September 4, 1980, the United States commenced this action by filing a complaint under Section 7003 of the Resource Conservation and Recovery Act (“RCRA”), 42 U.S.C. § 6973, alleging, inter alia, the existence of an imminent and substantial endangerment to health and the environment due to the handling, treatment, storage, transportation, disposal, and presence of hazardous waste at the Site. On or about October 15, 1980, the State (through its then attorney general, MPCA, and the Department of Health) and the City were granted leave to intervene, joining in the RCRA Section 7003 claim and asserting additional claims under Minnesota law. On or about June 16, 1981, the City of Hopkins (“Hopkins”) was likewise granted leave to intervene.

F. On or about September 9, 1981, the United States filed an amended complaint alleging, in addition to the RCRA Section 7003 claim, claims under Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §§ 9606 and 9607.

G. On or about May 27, 1981, the State filed an amended complaint asserting claims under RCRA Section 7003, 42 U.S.C. § 6973, CERCLA Section 107, 42 U.S.C. § 9607, Minn. Stat §§ 115.061, 115.07, 115.071, state rules, and Minnesota common law.

H. On or about August 31, 1981 and October 16, 1981, respectively, the City and Hopkins filed amended complaints alleging, inter alia, claims under RCRA Section 7003, 42 U.S.C. § 6973, CERCLA Section 107, 42 U.S.C. § 9607, Minn. Stat. Chapter 116B, and Minnesota common law.

I. On or about April 5, 1985, the Court granted the State's motion for leave to file a second amended complaint, adding claims under the Minnesota Environmental Response and Liability Act ("MERLA"), Minn. Stat. Ch. 115B. The State subsequently filed such a second amended complaint. Pursuant to stipulations, the City and Hopkins later also filed second amended complaints, each of which added MERLA claims.

J. In its answers to the various complaints referenced above, Reilly Tar denied liability, raised several affirmative defenses, and asserted a counterclaim against the City. Various other parties asserted cross-claims, including a cross-claim by the City against the State, a cross-claim by Oak Park Village Associates against the Housing and Redevelopment Authority of St. Louis Park ("HRA") and a cross-claim by Philip's Investment Co. against Reilly Tar. Although the United States chose not to assert a cross-claim against the City at that time, the City was a potentially responsible party as the current owner of the Site.

K. Pursuant to CERCLA Section 105, 42 U.S.C. § 9605, the United States Environmental Protection Agency ("EPA") placed the Site on the National Priorities List ("NPL") in 1983. In 1984, EPA entered a Record of Decision ("ROD") selecting an initial remedy to protect the drinking water in the City.

L. The United States, the State, the City, Hopkins, Reilly Tar, HRA, Oak Park Village Associates, and Philip's Investment Co. desired to reach a mutually satisfactory settlement in this action.

M. It was deemed to be in the public interest, the interest of the parties, and the interest of judicial economy for this case to be resolved without protracted litigation.

N. The Court signed and entered the parties' proposed consent decree on September 4, 1986. The 1986 Consent Decree incorporated, as Exhibit A, a Remedial Action Plan ("RAP") created to implement the selected remedy. The 1986 Consent Decree also incorporated, as Exhibit B, an Agreement between the City and Reilly Tar allocating responsibility for the performance of, and payment of the costs associated with, the remedial actions at the Site.

O. In 1986, 1990, 1992, and 1995, EPA and the State approved four additional RODs to select remedies for the Site consistent with the 1986 Consent Decree and incorporated RAP. In 1997, EPA and the State modified the 1995 ROD in an Explanation of Significant Differences.

P. The United States, the State, St. Louis Park, Hopkins, Reilly Tar, HRA, Oak Park Village Associates, and Philip's Investment Co. desire to update and amend the 1986 Consent Decree.

Q. Reilly Tar & Chemical Corporation, later known as Reilly Industries, merged with Rutherford Chemical Co. in 2006 to form Vertellus Specialties Inc. (n/k/a VSI Liquidating Inc.) (“Vertellus”). On May 31, 2016, Vertellus filed a petition with the U.S. Bankruptcy Court for the District of Delaware under Chapter 11 of the United States Bankruptcy Code (the “Vertellus Bankruptcy Case”). On February 24, 2017 the Bankruptcy Court entered an Order Confirming the Debtors’ Modified First Amended Plan of Liquidation under Chapter 11 of the Bankruptcy Code (“Liquidation Plan”) which, among other things, liquidated and dissolved Vertellus and formed VSI Liquidation Trust in accordance with the terms of the Liquidation Plan.

R. In light of the Liquidation Plan, the parties to the 1986 Consent Decree desire to dismiss all claims, if any, by or against Reilly Tar for which final judgment has not been entered, and for Reilly Tar and its successors to no longer proceed as a party to the Consent Decree.

S. All parties to the 1986 Consent Decree agree that it no longer is necessary for the Minnesota Department of Health, Hopkins, HRA, Oak Park Village Associates, and Philip’s Investment Co. to remain active parties to this action or to the 1986 Consent Decree. Accordingly, the parties to the 1986 Consent Decree desire to dismiss all counter-claims, if any, relating to the Minnesota Department of Health for which judgment has not been entered and the Minnesota Department of Health shall no longer proceed as a party to the 1986 Consent Decree. HRA, Oak Park Village, and Philip’s Investment Co. (the “Passive Parties”) shall continue to proceed as parties to the 1986 Consent Decree, as amended herein, but only to the extent required by their property access and non-interference obligations as set forth in Section VII (Property Requirements). Hopkins shall continue to proceed as a party for the purpose of preserving any rights and/or claims it may have as a party to the 1986 Consent Decree and to receive notice and the opportunity to comment as provided under Section VI of this Amended Consent Decree.

T. The United States, the State, and the City, as the remaining active parties to this Consent Decree (the “Parties”), update and amend the 1986 Consent Decree (“Amended CD”) and the incorporated RAP to address: (1) changes in the understanding of the toxicology of the relevant contaminants as reflected in the new health-based criteria; (2) modifications to the conceptual site model; (3) continuing implementation of the remedy; and (4) the status of the Parties.

U. Based on the information presently available to EPA and the State, EPA and the State believe that the Work will be properly and promptly conducted by the City if conducted in accordance with this Amended CD and its appendices.

V. Solely for the purposes of CERCLA Section 113(j), 42 U.S.C. § 9613(j), the remedy set forth in the ROD and the Work to be performed by the City shall constitute a response action taken or ordered by the President for which judicial review shall be limited to the administrative record.

W. The Parties recognize, and the Court by entering this Amended CD finds, that this Amended CD has been negotiated by the Parties in good faith and implementation of this Amended CD will expedite the cleanup of the Site and will avoid prolonged and complicated litigation between the Parties, and that this Amended CD is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1367, and 1345, and 42 U.S.C. §§ 9606, 9607, and 9613(b). This Court also has personal jurisdiction over the City. Solely for the purposes of this Amended CD and the underlying complaint, the City waives all objections and defenses that it may have to jurisdiction of the Court or to venue in this District. The City shall not challenge the terms of this Amended CD or this Court's jurisdiction to enter and enforce this Amended CD.

III. PARTIES BOUND

2. This Amended CD is binding upon the United States, the State, and Hopkins and upon the City and the Passive Parties and their successors and assigns. Any change in ownership or corporate or other legal status of the City or the Passive Parties including, but not limited to, any transfer of assets or real or personal property, shall in no way alter the City's or the Passive Parties' responsibilities under this Amended CD.

3. The City shall provide a copy of this Amended CD to each contractor hired to perform the Work and to each person representing the City with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Amended CD. The City or its contractors shall provide written notice of the Amended CD to all subcontractors hired to perform any portion of the Work. The City shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Amended CD. With regard to the activities undertaken pursuant to this Amended CD, each contractor and subcontractor shall be deemed to be in a contractual relationship with the City within the meaning of CERCLA Section 107(b)(3), 42 U.S.C. § 9607(b)(3).

IV. DEFINITIONS

4. Unless otherwise expressly provided in this Amended CD, terms used in this Amended CD that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Amended CD or its appendices, the following definitions shall apply solely for purposes of this Amended CD:

“Affected Property” shall mean all real property at the Site and any other real property where EPA determines, at any time, that access, land, water, or other resource use restrictions, and/or Institutional Controls are needed to implement the Remedial Action, including, but not limited to, the Site.

“Amended Consent Decree” or “Amended CD” shall mean this consent decree and all appendices attached hereto (listed in Section XXII). In the event of conflict between this Amended CD and any appendix, this Amended CD shall control.

“Amended Remedial Action Plan” or “Amended RAP” shall mean the document describing the activities to be undertaken by EPA, the State, and the City to implement the Remedial Action and ongoing O&M of the remedy, attached hereto as Appendix A.

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

“Chemicals of Interest” or “COI” shall mean site-related polycyclic aromatic hydrocarbons (“PAH”) and other site-related contaminants identified in the Amended RAP.

“City” shall mean the City of St. Louis Park, a municipal corporation organized and existing under the laws of the State of Minnesota.

“City’s Affected Property” shall mean Affected Property owned or controlled by the City.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Amended CD, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“DOJ” shall mean the United States Department of Justice and its successor departments, agencies, or instrumentalities.

“Effective Date” shall mean the date upon which the approval of this Amended CD is recorded on the Court’s docket.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Future Oversight Costs” shall mean that portion of Future Response Costs that EPA incurs in monitoring and supervising the City’s performance of the Work to determine whether such performance is consistent with the requirements of this Amended CD, including costs incurred in reviewing deliverables submitted pursuant to this Amended CD, as well as costs incurred in overseeing implementation of the Work; however, Future Oversight Costs do not include, *inter alia*: the costs incurred by the United States pursuant to Paragraph 15 (Emergencies and Releases), Section VII (Property Requirements), and Paragraph 28 (Access to Financial Assurance), or the costs incurred by the United States in enforcing this Amended CD, including all costs incurred pursuant to Section XIII (Dispute Resolution), and all litigation costs.

“Future Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing deliverables submitted pursuant to this Amended CD, in overseeing implementation of the Work, or otherwise implementing, overseeing, or enforcing this Amended CD, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraphs 15 (Emergencies and Releases) and 28 (Access to Financial Assurance), and Section VII (Property Requirements) (including the cost of attorney time and any monies paid to secure or enforce access or land, water, or other resource use restrictions and/or to secure, implement, monitor, maintain, or enforce Institutional Controls, including the amount of just compensation), and Section XIII (Dispute Resolution), and all litigation costs.

“Hopkins” shall mean the City of Hopkins, Minnesota.

“HRA” shall mean the Housing and Redevelopment Authority of St. Louis Park and any successors.

“Institutional Controls” shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the RA; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Site.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“Interest Earned” shall mean interest earned on amounts in the Reilly Tar & Chemical SLP Site Disbursement Special Account, which shall be computed monthly at a rate based on the annual return on investments of the EPA Hazardous Substance Superfund. The applicable rate of interest shall be the rate in effect at the time the interest accrues.

“MERLA” shall mean the Minnesota Environmental Response and Liability Act, Minn. Stat. §§ 115B.01-115B.20.

“MPCA” shall mean the Minnesota Pollution Control Agency and any successor departments or agencies of the State.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Non-Party Owner” shall mean any person, other than the City or a Passive Party, that owns or controls any Affected Property. The clause “Non-Party Owner’s Affected Property” means Affected Property owned or controlled by a Non-Party Owner.

“Operation and Maintenance” or “O&M” shall mean all activities required to operate, maintain, and monitor the effectiveness of the RA as specified in the RAP or any EPA-approved O&M Plan.

“Paragraph” shall mean a portion of this Amended CD identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean the United States, the State of Minnesota, and the City of St. Louis Park.

“Passive Parties” shall mean the Housing and Redevelopment Authority of St. Louis Park, Oak Park Village Associates, Rustic Oaks Condominium, Inc., Philip’s Investment Co., and any successors or assigns. The clause “Passive Party’s Affected Property” means Affected Property owned or controlled by a Passive Party.

“Performance Standards” or “PS” shall mean the cleanup levels and other measures of achievement of the remedial action objectives, as set forth in the RODs.

“Proprietary Controls” shall mean easements or covenants running with the land that (a) limit land, water, or other resource use and/or provide access rights and (b) are created pursuant to common law or statutory law by an instrument that is recorded in the appropriate land records office.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Records of Decision” or “RODs” shall mean the EPA Records of Decision and Enforcement Decision Documents relating to the Site signed on June 6, 1984, May 30, 1986, September 28, 1990, September 3, 1992, and June 30, 1995, by the Regional Administrator, EPA Region 5, or his/her delegate, and all attachments thereto and the Explanation of Significant Differences signed on March 26, 1997.

“Reilly Tar & Chemical SLP Site Disbursement Special Account” shall mean the special account, within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3), and Paragraph 35 (Creation of Reilly Tar & Chemical SLP Site Disbursement Special Account).

“Remedial Action” or “RA” shall mean the remedial action selected in the RODs.

“Section” shall mean a portion of this Amended CD identified by a Roman numeral.

“Site” shall mean the Reilly Tar & Chemical Corporation/St. Louis Park Plant Superfund Site, encompassing approximately 80 acres, located in St. Louis Park, Hennepin County, Minnesota, and depicted generally on the map attached as Appendix B. The Site is bounded by the terminus of Pennsylvania Avenue south of 31st Street on the west; the intersection of Louisiana Avenue and 32nd Street to Gorham Street, Gorham Street from Louisiana Avenue to 2nd Street NW from Gorham Street to Republic Avenue, Republic Avenue from 2nd Street NE to 1st Street NW, and 1st Street NW from Republic Avenue to Walker Street on the east; and Walker Street on the South. The Site consists of Lot 1, Blocks 1-10; all in Oak Park Village according to the plat thereof on file in the office of the County Recorder of Hennepin County, Minnesota.

“State” shall mean the State of Minnesota, including MPCA.

“Supervising Contractor” shall mean the principal contractor retained by the City to supervise and direct the implementation of the Work under this Amended CD.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean (1) any “hazardous substance” under CERCLA Section 101(14), 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under CERCLA

Section 101(33), 42 U.S.C. § 9601(33); (3) any “solid waste” under RCRA Section 1004(27), 42 U.S.C. § 6903(27); and (4) any “hazardous waste” under MERLA Section 115B.02, subd. 9, Minn. Stat. § 115B.02, subd. 9.

“Work” shall mean all activities and obligations the City is required to perform under this Amended CD and the Amended RAP, incorporated herein, except the activities required under Section XIX (Retention of Records).

V. GENERAL PROVISIONS

5. **Objectives of the Parties.** The objectives of the Parties in entering into this Amended CD are to protect public health or welfare or the environment by the design and implementation of long term response actions at the Site.

6. **Commitments by the City.** The City shall finance and perform the Work in accordance with this Amended CD and all deliverables developed by the City and approved or modified by EPA pursuant to this Amended CD.

7. **Compliance with Applicable Law.** Nothing in this Amended CD limits the City’s obligations to comply with the requirements of all applicable federal and state laws and regulations. The City must also comply with all applicable or relevant and appropriate requirements of all federal and state environmental laws as set forth in the RODs and the RAP. The activities conducted pursuant to this Amended CD, if approved by EPA, shall be deemed to be consistent with the NCP as provided in Section 300.700(c)(3)(ii) of the NCP.

8. **Permits.**

a. As provided in CERCLA Section 121(e), 42 U.S.C. § 9621(e), and NCP Section 300.400(e), no permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work). Where any portion of the Work that is not on-site requires a federal or state permit or approval, the City shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

b. The City may seek relief under the provisions of Section XII (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval referenced in Paragraph 8.a and required for the Work, provided that it has submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals.

c. This Amended CD is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

VI. PERFORMANCE OF THE WORK

9. **Coordination and Supervision.**

a. **Project Coordinators.**

(1) The City’s Project Coordinator must have sufficient technical expertise to coordinate the Work. The City’s Project Coordinator may not be an attorney

representing the City in this matter and may not act as the Supervising Contractor. The City's Project Coordinator may assign other representatives, including other contractors, to assist in coordinating the Work.

(2) EPA shall designate and notify the City and the State of EPA's Project Coordinator and Alternate Project Coordinator. EPA may designate other representatives, which may include its employees, contractors, and/or consultants, to oversee the Work. EPA's Project Coordinator/Alternate Project Coordinator will have the same authority as a remedial project manager and/or an on-scene coordinator, as described in the NCP. This includes the authority to halt the Work and/or to conduct or direct any necessary response action when he or she determines that conditions at the Site constitute an emergency or may present an immediate threat to public health or welfare or the environment due to a release or threatened release of Waste Material.

(3) The State shall designate and notify EPA and the City of its Project Coordinator and Alternate Project Coordinator. The State may designate other representatives, including its employees, contractors, and/or consultants to oversee the Work. For any meetings and inspections in which EPA's Project Coordinator participates, the State's Project Coordinator also may participate. The City shall notify the State reasonably in advance of any such meetings or inspections.

(4) The City's Project Coordinator shall meet with EPA's and the State's Project Coordinators at least annually.

b. **Supervising Contractor.** The City's proposed Supervising Contractor must have sufficient technical expertise to supervise the Work and a quality assurance system that complies with ANSI/ASQC E4-2004, Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use (American National Standard).

c. **Procedures for Disapproval/Notice to Proceed.**

(1) The City shall designate, and notify EPA and the State, within 10 days after the Effective Date, of the names, contact information, and qualifications of the City's proposed Project Coordinator and Supervising Contractor.

(2) EPA, after a reasonable opportunity for review and comment by the State, shall issue notices of disapproval and/or authorizations to proceed regarding the proposed Project Coordinator and Supervising Contractor, as applicable. If EPA issues a notice of disapproval, the City shall, within 45 days, submit to EPA a list of supplemental proposed Project Coordinators and/or Supervising Contractors, as applicable, including a description of the qualifications of each. EPA shall issue a notice of disapproval or authorization to proceed regarding each supplemental proposed coordinator and/or contractor. The City may select any coordinator/contractor covered by an authorization to proceed and shall, within 21 days, notify EPA and the State of the City's selection.

(3) The City may change its Project Coordinator and/or Supervising Contractor, as applicable, by following the procedures of Paragraphs 9.c(1) and 9.c(2).

10. **Performance of Work in Accordance with the Amended RAP.** EPA, the State, and the City have developed an Amended RAP to implement the remedies identified in the

RODs. The Amended RAP is attached hereto and incorporated herein by reference. The City shall perform the Work as specified in the Amended RAP and all EPA-approved, conditionally-approved, or modified deliverables under the Amended RAP.

11. Approval of Deliverables

a. Initial Submissions

(1) After review of any deliverable that is required to be submitted for EPA approval under the Amended CD or the Amended RAP, EPA shall: (i) approve, in whole or in part, the submission; (ii) approve the submission upon specified conditions; (iii) disapprove, in whole or in part, the submission; or (iv) any combination of the foregoing.

(2) EPA also may modify the initial submission to cure deficiencies in the submission if: (i) EPA determines that disapproving the submission and awaiting a resubmission would cause substantial disruption to the Work; or (ii) previous submission(s) have been disapproved due to material defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

b. Resubmissions. Upon receipt of a notice of disapproval under Paragraph 11.a (Initial Submissions), or if required by a notice of approval upon specified conditions under Paragraph 11.a, the City shall, within 21 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may: (1) approve, in whole or in part, the resubmission; (2) approve the resubmission upon specified conditions; (3) modify the resubmission; (4) disapprove, in whole or in part, the resubmission, requiring the City to correct the deficiencies; or (5) any combination of the foregoing.

c. Implementation. Upon approval, approval upon conditions, or modification by EPA under Paragraph 11.a (Initial Submissions) or Paragraph 11.b (Resubmissions), of any deliverable, or any portion thereof: (1) such deliverable, or portion thereof, will be incorporated into and enforceable under the Amended CD; and (2) the City shall take any action required by such deliverable, or portion thereof. The implementation of any non-deficient portion of a deliverable submitted or resubmitted under Paragraph 11.a or Paragraph 11.b does not relieve the City of any liability for stipulated penalties under Section XIV (Stipulated Penalties) of the Amended CD.

d. Certification. All deliverables must be signed by the City's Project Coordinator, or other responsible official of the City, and must contain the following statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is

other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations

12. Certification of RA Completion

a. RA Completion Inspection. The RA is “Complete” for purposes of this Paragraph 12 when it has been fully performed and the Performance Standards have been achieved. The City shall schedule an inspection for the purpose of obtaining EPA’s Certification of RA Completion. The inspection must be attended by the City and EPA and/or their representatives.

b. RA Report/Monitoring Report. Following the inspection, the City shall submit a RA Report/Monitoring Report to EPA requesting EPA’s Certification of RA Completion. The report must: (1) include certifications by a registered professional engineer or registered professional geologist (as appropriate for the report) and by the City’s Project Coordinator that the RA is complete; (2) be prepared in accordance with Chapter 2 (Remedial Action Completion) of EPA’s *Close Out Procedures for NPL Sites* guidance (May 2011), as supplemented by *Guidance for Management of Superfund Remedies in Post Construction*, OLEM 9200.3-105 (Feb. 2017); (3) contain monitoring data to demonstrate that Performance Standards have been achieved; and (4) be certified in accordance with Paragraph 11.d (Certification). A copy of this report shall be provided to Hopkins, which must submit any comments to the City, the State, and EPA within 21 days of receipt.

c. If EPA concludes that the RA is not Complete, EPA shall so notify the City. EPA’s notice must include a description of any deficiencies. EPA’s notice may include a schedule for addressing such deficiencies or may require the City to submit a schedule for EPA approval. The City shall perform all activities described in the notice in accordance with the schedule.

d. If EPA concludes, based on the initial or any subsequent RA Report/Monitoring Report requesting Certification of RA Completion, that the RA is Complete, EPA shall so certify to the City. This certification will constitute the Certification of RA Completion for purposes of this Amended CD. Certification of RA Completion will not affect the City’s remaining obligations under the Amended CD.

13. Certification of Work Completion

a. Work Completion Inspection. The City shall schedule an inspection for the purpose of obtaining EPA’s Certification of Work Completion. The inspection must be attended by the City and EPA and/or their representatives.

b. Work Completion Report. Following the inspection, the City shall submit a report to EPA requesting EPA’s Certification of Work Completion. The report must: (1) include certifications by a registered professional engineer or registered professional geologist (as appropriate for the report) and by the City’s Project Coordinator that the Work, including all O&M activities, is complete; and (2) be certified in accordance with Paragraph 11.d (Certification). If the RA Report/Monitoring Report submitted under Paragraph 12 includes all elements required under this Paragraph 13, then the RA Report/Monitoring Report suffices to

satisfy all requirements under this Paragraph 13. A copy of the report shall be provided to the Hopkins, which must submit any comments to the City and EPA within 21 days of receipt.

c. If EPA concludes that the Work is not complete, EPA shall so notify the City. EPA's notice must include a description of the activities that the City must perform to complete the Work. EPA's notice must include specifications and a schedule for such activities or must require the City to submit specifications and a schedule for EPA approval. The City shall perform all activities described in the notice or in the EPA-approved specifications and schedule.

d. If EPA concludes, based on the initial or any subsequent report requesting Certification of Work Completion, that the Work is complete, EPA shall so certify in writing to the City. Issuance of the Certification of Work Completion does not affect the following continuing obligations: (1) activities under the Periodic Review Support Plan; (2) obligations under Sections VII (Property Requirements), XVIII (Access to Information), and XIX (Retention of Records) of the Amended CD; (3) Institutional Controls obligations as provided in the ICIAP; and (4) reimbursement of EPA's Future Response Costs under Section IX (Payments for Response Costs) of the Amended CD.

14. State Participation

a. Copies. The City shall, at any time it sends a deliverable to EPA, send a copy of such deliverable to the State. EPA shall, at any time it sends a notice, authorization, approval, disapproval, or certification to the City, send a copy of such document to the State.

b. Review and Comment. The State will have a reasonable opportunity for review and comment prior to:

(1) Any EPA approval or disapproval under Paragraph 11 (Approval of Deliverables) of any deliverables that are required to be submitted for EPA approval; and

(2) Any approval or disapproval of the Certification of RA Completion under Paragraph 12, and any disapproval of or Certification of Work Completion under Paragraph 13.

15. Emergencies and Releases.

a. If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Site and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, the City shall: (1) immediately take all appropriate action to prevent, abate, or minimize such release or threat of release; (2) immediately notify the authorized EPA officer (as specified in Paragraph 15.b) orally; and (3) take such actions in consultation with the authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plan, the Emergency Response Plan, and any other deliverable approved by EPA under the Amended CD or Amended RAP.

b. Upon the occurrence of any event during performance of the Work that the City is required to report pursuant to CERCLA Section 103, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, the

City shall immediately notify the authorized EPA officer orally. The “authorized EPA officer” for purposes of immediate oral notifications and consultations under this Paragraph 15 is the EPA Project Coordinator, the EPA Alternate Project Coordinator (if the EPA Project Coordinator is unavailable), or the EPA Emergency Response Unit, Region 5 (if neither EPA Project Coordinator is available).

c. For any event covered by Paragraphs 15.a and 15.b, the City shall: (1) within 14 days after the onset of such event, submit a report to EPA describing the actions or events that occurred and the measures taken, and to be taken, in response thereto; and (2) within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event.

d. Subject to Section XV (Covenants by United States and the State), nothing in this Amended CD limits any authority of the United States or the State: (a) to take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site, or (b) to direct or order such action, or seek an order from the Court, to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Site. If, due to the City’s failure to take appropriate response action under Paragraph 15.a, EPA or, as appropriate, the State takes such action instead, the City shall reimburse EPA and the State under Section IX (Payments for Response Costs) for all costs of the response action.

16. Modification of the Amended RAP or Related Deliverables.

a. If EPA, following consultation with the State, determines that it is necessary to modify the work specified in the Amended RAP and/or in deliverables developed under the Amended RAP in order to achieve and/or maintain the Performance Standards or to carry out and maintain the effectiveness of the RA, and such modification is consistent with the Remedial Action Objectives set forth in Section 1.4 of the Amended RAP, then EPA may notify the City of such modification. Notice of the proposed modification shall be provided to Hopkins, which must submit any comments to EPA within 21 days of receipt. If the City objects to the modification it may, within 30 days after EPA’s notification, seek dispute resolution under Section XIII.

b. If the City determines that it is necessary to modify the work specified in the Amended RAP and/or in deliverables developed under the Amended RAP in order to achieve and/or maintain the Performance Standards or to carry out and maintain the effectiveness of the RA, and such modification is consistent with the Remedial Action Objectives set forth in Section 1.4 of the Amended RAP, then the City may submit the proposed modification to EPA for approval, with a copy to the State. Notice of the proposed modification shall be provided to Hopkins, which must submit any comments to EPA within 21 days of receipt. If EPA rejects the proposed modification, the City may, within 30 days after notification of such rejection, seek dispute resolution under Section XIII.

c. The Amended RAP and/or related work plans shall be modified: (1) in accordance with the modification issued by EPA; or (2) if the City invokes dispute resolution, in accordance with the final resolution of the dispute. The modification shall be incorporated into and enforceable under this Amended CD, and the City shall implement all work required of it by

such modification. The City shall incorporate the modification into the deliverable required under the Amended RAP, as appropriate.

d. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions as otherwise provided in this Amended CD.

17. Nothing in this Amended CD, the Amended RAP, or any deliverable required under the Amended RAP constitutes a warranty or representation of any kind by EPA and the State that compliance with the work requirements set forth in the Amended RAP or related deliverable will achieve the Performance Standards.

VII. PROPERTY REQUIREMENTS

18. **Agreements Regarding Access and Non-Interference.** The City shall, with respect to any Non-Party Owner's Affected Property, use best efforts to secure from such Non-Party Owner an agreement, enforceable by the United States and the State, providing that such Non-Party Owner shall: (i) provide EPA, the State, and the City, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Amended CD, including those listed in Paragraph 18.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the Remedial Action, including the restrictions listed in Paragraph 18.b (Institutional Controls). The City and the Passive Parties shall, with respect to the City's Affected Property and the Passive Parties' Affected Property respectively, likewise comply with the Access Requirements listed in Paragraph 18.a and the Institutional Controls listed in Paragraph 18.b.

a. **Access Requirements.** Activities for which access is required regarding the Affected Property include, but are not limited to, the following:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to the United States or the State;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, or implementing additional response actions at or near the Site or other Affected Property;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved Quality Assurance Project Plan incorporated into the Amended RAP;
- (7) Implementing the Work pursuant to the conditions set forth in Paragraph 70 (Work Takeover);

(8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by the City or the Passive Parties or their agents, consistent with Section XVIII (Access to Information);

(9) Assessing the City's compliance with the Amended CD;

(10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Amended CD; and

(11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions and Institutional Controls.

b. **Institutional Controls.** The City shall prepare an Institutional Control Implementation and Assurance Plan ("ICIAP") in accordance with the schedule in Section 9 of the Amended RAP. The ICIAP shall be subject to approval and/or modification by EPA and the State as provided in Paragraph 11 above.

19. The City shall not transfer Affected Property unless it has first secured EPA's approval of, and the transferee's consent to, an agreement that: (i) is enforceable by the City, EPA, and the State; and (ii) requires the transferee to provide access to and to refrain from using the Affected Property to the same extent as is provided under Paragraph 18.a (Access Requirements) and Paragraph 18.b (Institutional Controls).

20. A Passive Party shall not transfer Affected Property unless it has first secured the transferee's consent to an agreement that: (i) is enforceable by the City, EPA, and the State; and (ii) requires the transferee to provide access to and to refrain from using the Affected Property to the same extent as is provided under Paragraph 18.a (Access Requirements) and Paragraph 18.b (Institutional Controls), and has provided EPA with a copy of such agreement at least 15 days prior to the transfer.

21. **Notice to Successors-in-Title.** The City and the Passive Parties shall, prior to entering into a contract to Transfer any of their Affected Property, or 60 days prior to Transferring their Affected Property, whichever is earlier:

a. Notify the proposed transferee that EPA has selected a remedy regarding the Site and that the United States District Court has entered an Amended CD requiring implementation of such remedy (identifying the name and civil action number of this case and the date the Amended CD was entered by the Court); and

b. Notify the City, EPA, and the State of the name and address of the proposed transferee and provide the City, EPA, and the State with a copy of the notice that it provided to the proposed transferee.

22. In the event of any Transfer of the Affected Property, unless the United States otherwise consents in writing, the City shall continue to comply with its obligations under the Amended CD, including its obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property, and to implement, maintain, monitor, and report on Institutional Controls.

23. Notwithstanding any provision of the Amended CD, EPA and the State retain all of their access authorities and rights, as well as all of their rights to require land, water, or other resource use restrictions and Institutional Controls, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statute or regulations.

VIII. FINANCIAL ASSURANCE

24. In order to ensure completion of the Work, the City shall secure financial assurance, initially in the amount of \$11.5 million (“Estimated Cost of the Work”), for the benefit of EPA. The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from the “Financial Assurance” category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>, and satisfactory to EPA. The City may use multiple mechanisms if they are limited to surety bonds guaranteeing payment, letters of credit, trust funds, and/or insurance policies.

a. A surety bond guaranteeing payment and/or performance of the Work that is issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury;

b. An irrevocable letter of credit, payable to or at the direction of EPA, that is issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;

c. A trust fund established for the benefit of EPA that is administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;

d. A policy of insurance that provides EPA with acceptable rights as a beneficiary thereof and that is issued by an insurance carrier that has the authority to issue insurance policies in the applicable jurisdiction(s) and whose insurance operations are regulated and examined by a federal or state agency; or

e. A demonstration by the City that it meets the relevant financial test criteria of 40 C.F.R. § 258.74(f) and reporting requirements of this Section for the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee, accompanied by a standby funding commitment, which obligates the City to pay funds to or at the direction of EPA, up to the amount financially assured through the use of this demonstration, in the event of a Work Takeover.

25. The City has selected, and EPA has found satisfactory, as an initial financial assurance a demonstration by the City that it meets the relevant financial test criteria in the form attached as Appendix C. Within 30 days after the Effective Date, the City shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the form of financial assurance attached as Appendix C and shall submit such mechanisms and documents to the Regional Supervisory Accountant, to the United States, and to EPA and the State as specified in Section XX (Notices and Submissions).

26. If the City provides financial assurance by means of a demonstration under Paragraph 24.e, the City shall also comply with the other relevant criteria and requirements of 40 C.F.R. § 258.74(f) and this Section, including, but not limited to: (a) the initial submission to EPA of required documents from the City's chief financial officer and independent certified public accountant no later than 30 days after the Effective Date; (b) the annual resubmission of such documents within 180 days after the close of the City's fiscal year; and (c) the notification of EPA no later than 30 days, in accordance with Paragraph 27, after the City determines that it no longer satisfies the relevant financial test criteria and requirements set forth at 40 C.F.R. § 258.74(f)(1). The City agrees that EPA may also, based on a belief that the City may no longer meet the financial test requirements of Paragraph 24.e, require reports of financial condition at any time from the City in addition to those specified in this Paragraph. For purposes of this Section, references in 40 C.F.R. Part 258, Subpart G, to: (1) the terms "estimated total closure and post-closure care cost" and "corrective action costs" include the Estimated Cost of the Work; (2) the phrase "other environmental obligations" includes the sum of all environmental obligations (including obligations under CERCLA, RCRA, and any other federal, state, or tribal environmental obligation) guaranteed by the City in addition to the Estimated Cost of the Work under this Amended CD; (3) the terms "owner" and "operator" include the City; and (4) the terms "facility" and "hazardous waste management facility" include the Site.

27. The City shall diligently monitor the adequacy of the financial assurance. If the City becomes aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, the City shall notify EPA of such information within 7 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the City of such determination. The City shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. EPA may extend this deadline for such time as is reasonably necessary for the City, in the exercise of due diligence, to secure and submit to EPA a proposal for a revised or alternative financial assurance mechanism, not to exceed 60 days. The City shall follow the procedures of Paragraph 29 (Modification of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. The City's inability to secure and submit to EPA financial assurance in accordance with this Section shall in no way excuse performance of any other requirements of this Amended CD, including, without limitation, the obligation of the City to complete the Work in accordance with the terms of this Amended CD.

28. Access to Financial Assurance.

a. If EPA issues a notice of implementation of a Work Takeover under Paragraph 70.b, then, in accordance with any applicable financial assurance mechanism and/or related standby funding commitment, EPA is entitled to: (1) the performance of the Work; and/or (2) require that any funds guaranteed be paid in accordance with Paragraph 28.d.

b. If EPA is notified by the issuer of a financial assurance mechanism that it intends to cancel such mechanism, and the City fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, the

funds guaranteed under such mechanism must be paid prior to cancellation in accordance with Paragraph 28.d.

c. If, upon issuance of a notice of implementation of a Work Takeover under Paragraph 70.b, either: (1) EPA is unable for any reason to promptly secure the resources guaranteed under any applicable financial assurance mechanism and/or related standby funding commitment, whether in cash or in kind, to continue and complete the Work; or (2) the financial assurance is provided under Paragraph 24.e, then EPA may demand an amount, as determined by EPA, sufficient to cover the cost of the remaining Work to be performed. The City shall, within 14 days of such demand, pay the amount demanded as directed by EPA.

d. Any amounts required to be paid under this Paragraph 28 shall be, as directed by EPA: (i) paid to EPA in order to facilitate the completion of the Work by EPA or by another person; or (ii) deposited into an interest-bearing account, established at a duly chartered bank or trust company that is insured by the FDIC, in order to facilitate the completion of the Work by another person. If payment is made to EPA, EPA may deposit the payment into the EPA Hazardous Substance Superfund or into the Reilly Tar & Chemical Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

e. All EPA Work Takeover costs not paid under this Paragraph 28 must be reimbursed as Future Response Costs under Section IX (Payments for Response Costs).

29. **Modification of Amount, Form, or Terms of Financial Assurance.** The City may submit, on any anniversary of the Effective Date or at any other time agreed to by the Parties, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to EPA in accordance with Paragraph 25, and must include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, and a description of the proposed changes, if any, to the form or terms of the financial assurance. EPA will notify the City of its decision to approve or disapprove a requested reduction or change pursuant to this Paragraph. The City may reduce the amount of the financial assurance mechanism only in accordance with: (a) EPA's approval; or (b) if there is a dispute, the agreement, final administrative decision, or final judicial decision resolving such dispute under Section XIII (Dispute Resolution). Any decision made by EPA on a request submitted under this Paragraph to change the form or terms of a financial assurance mechanism shall be made in EPA's sole and unreviewable discretion, and such decision shall not be subject to challenge by the City pursuant to the dispute resolution provisions of this Amended CD or in any other forum. Within 30 days after receipt of EPA's approval of, or the agreement or decision resolving a dispute relating to, the requested modifications pursuant to this Paragraph, the City shall submit to EPA documentation of the reduced, revised, or alternative financial assurance mechanism in accordance with Paragraph 25.

30. **Release, Cancellation, or Discontinuation of Financial Assurance.** The City may release, cancel, or discontinue any financial assurance provided under this Section only: (a) if EPA issues a Certification of Work Completion under Paragraph 13 (Certification of Work Completion) of the Amended RAP; (b) in accordance with EPA's approval of such release, cancellation, or discontinuation; or (c) if there is a dispute regarding the release, cancellation or

discontinuance of any financial assurance, in accordance with the agreement, final administrative decision, or final judicial decision resolving such dispute under Section XIII (Dispute Resolution).

IX. PAYMENTS FOR RESPONSE COSTS

31. **Payments by the City for Future Response Costs.** The City shall not be responsible for EPA's Future Oversight Costs. The City shall pay to EPA all other Future Response Costs not inconsistent with the NCP.

a. **Periodic Bills.** On a periodic basis, EPA will send the City a bill requiring payment that includes an Itemized Cost Summary of Future Response Costs subject to reimbursement under this Paragraph, which includes direct and indirect costs incurred by EPA, its contractors, subcontractors, and DOJ. The City shall make all payments within 30 days after the City's receipt of each bill requiring payment, except as otherwise provided in Paragraph 33, in accordance with Paragraph 32.a (instructions for future response cost payments).

b. **Deposit of Future Response Costs Payments.** The total amount to be paid by the City pursuant to Paragraph 31.a (Periodic Bills) shall be deposited by EPA in the Reilly Tar & Chemical Site SLP Special Account to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund, provided, however, that EPA may deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund if, at the time the payment is received, EPA estimates that the Reilly Tar & Chemical SLP Site Special Account balance is sufficient to address currently anticipated future response actions to be conducted or financed by EPA at or in connection with the Site. Any decision by EPA to deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund for this reason shall not be subject to challenge by the City pursuant to the dispute resolution provisions of this Amended CD or in any other forum.

32. **Payment Instructions for the City.**

a. **Future Response Costs Payments and Stipulated Penalties.**

(1) For all payments subject to this Paragraph 32.a, the City shall make such payment by Automated Clearinghouse (ACH) payment as follows:

500 Rivertech Court
Riverdale, Maryland 20737
Contact – John Schmid 202-874-7026 or REX, 1-866-234-5681
ABA = 051036706
Transaction Code 22 - checking
Environmental Protection Agency
Account 310006
CTX Format

(2) For all payments made under this Paragraph 32.a, the City must include references to Site/Spill ID Number 0506 and DJ Number 90-7-1-21/2. At the time of any payment required to be made in accordance with Paragraph 32.a, the City shall send notices that payment has been made to the United States, EPA, and the EPA

Cincinnati Finance Center, all in accordance with Paragraph 94. All notices must include references to the Site/Spill ID and DJ numbers.

33. **Contesting Future Response Costs.** The City may submit a Notice of Dispute, initiating the procedures of Section XIII (Dispute Resolution), regarding any Future Response Costs billed under Paragraph 31 (Payments by the City for Future Response Costs) if it determines that EPA has made a mathematical error or included a cost item that is not within the definition of Future Response Costs, or if it believes EPA incurred excess costs as a direct result of an EPA action that was inconsistent with a specific provision or provisions of the NCP. Such Notice of Dispute shall be submitted in writing within 30 days after receipt of the bill and must be sent to the United States pursuant to Section XX (Notices and Submissions). Such Notice of Dispute shall specifically identify the contested Future Response Costs and the basis for objection. If the City submits a Notice of Dispute, the City shall, within the 30-day period, also as a requirement for initiating the dispute, (a) pay all uncontested Future Response Costs to the United States, and (b) establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC), and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. The City shall send to the United States, as provided in Section XX (Notices and Submissions), a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If the United States prevails in the dispute, the City shall pay the sums due (with accrued Interest) to the United States within 7 days after the resolution of the dispute. If the City prevails concerning any aspect of the contested costs, the City shall pay that portion of the costs (plus associated accrued Interest) for which it did not prevail to the United States within 7 days after the resolution of the dispute. The City shall be disbursed any balance of the escrow account. All payments to the United States under this Paragraph shall be made in accordance with Paragraph 32.a (instructions for future response cost payments). The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XIII (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding the City's obligation to reimburse the United States for its Future Response Costs.

34. **Interest.** In the event that any payment for Future Response Costs required under this Section is not made by the date required, the City shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill. The Interest shall accrue through the date of the City's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to EPA and the State by virtue of the City's failure to make timely payments under this Section including, but not limited to, payment of stipulated penalties pursuant to ¶ 57 (Stipulated Penalty Amounts – Work).

X. DISBURSEMENT OF SPECIAL ACCOUNT FUNDS

35. **Creation of Reilly Tar & Chemical SLP Site Disbursement Special Account and Agreement to Disburse Funds to the City.** If EPA receives an allocation of funds from the Vertellus Environmental Response Trust relating to the Site, EPA may choose to establish a Reilly Tar & Chemical SLP Site Disbursement Special Account and fund such account with all

or a portion of the allocation received. The extent of any such funding shall be at EPA's discretion. EPA shall inform the City and the State of the establishment of a Reilly Tar & Chemical SLP Site Disbursement Special Account within 30 days of it being funded. Subject to the terms and conditions set forth in this Section, EPA agrees to make the funds in any Reilly Tar & Chemical SLP Site Disbursement Special Account, including Interest Earned on the funds in any Reilly Tar & Chemical SLP Site Disbursement Special Account, available for disbursement to the City as partial reimbursement for performance of the Work. EPA shall disburse funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account to the City in accordance with the procedures and milestones for phased disbursement set forth in this Section.

36. Timing, Amount, and Method of Disbursing Funds From the Reilly Tar & Chemical SLP Site Disbursement Special Account. Within 30 days after EPA's receipt of a Cost Summary and Certification, as defined by Paragraph 37.b, or if EPA has requested additional information under Paragraph 37.b or a revised Cost Summary and Certification under Paragraph 37.c, within 30 days after receipt of the additional information or revised Cost Summary and Certification, and subject to the conditions set forth in this Section, EPA shall disburse funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account to the City in accordance with instructions provided by the City in its Cost Summary and Certification.

37. Requests for Disbursement of Special Account Funds.

a. Following notification of the establishment of a Reilly Tar & Chemical SLP Site Disbursement Special Account, on an annual basis the City may submit to EPA a Cost Summary and Certification, as defined in Paragraph 37.b, covering the Work performed up to the date of the Cost Summary and Certification. The City shall not include in any submission costs included in a previous Cost Summary and Certification if those costs have been previously sought or reimbursed pursuant to Paragraph 36.

b. Each Cost Summary and Certification shall include a complete and accurate written cost summary and certification of the necessary costs incurred and paid by the City for the Work covered by the particular submission, excluding costs not eligible for disbursement under Paragraph 38 (Costs Excluded from Disbursement), and the name and address for payment or instructions for electronic funds transfer. Each Cost Summary and Certification shall contain the following statement signed by the City's Chief Financial Officer:

To the best of my knowledge, after thorough investigation and review of the City's documentation of costs incurred and paid for Work performed pursuant to this Amended CD through the date of this Cost Summary and Certification, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

The Chief Financial Officer shall also provide EPA a list of the documents that he or she reviewed in support of the Cost Summary and Certification. Upon request by EPA, the City shall submit to EPA any additional information that EPA deems necessary for its review and approval of a Cost Summary and Certification.

c. If EPA finds that a Cost Summary and Certification includes a mathematical error, costs excluded under Paragraph 38 (Costs Excluded from Disbursement),

costs that are inadequately documented, or costs submitted in a prior Cost Summary and Certification, it will notify the City and provide it an opportunity to cure the deficiency by submitting a revised Cost Summary and Certification. If the City fails to cure the deficiency within 30 days after being notified of, and given the opportunity to cure, the deficiency, EPA will recalculate the City's costs eligible for disbursement for that submission and disburse the corrected amount to the City in accordance with the procedures in Paragraph 36 (Timing, Amount, and Method of Disbursing Funds). The City may dispute EPA's recalculation under this Paragraph pursuant to Section XIII (Dispute Resolution). In no event shall the City be disbursed funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account in excess of amounts properly documented in a Cost Summary and Certification accepted or modified by EPA.

38. **Costs Excluded from Disbursement.** The following costs are excluded from, and shall not be sought by the City for, disbursement from the Reilly Tar & Chemical SLP Site Disbursement Special Account: (a) response costs paid pursuant to Section IX (Payments for Response Costs); (b) any other payments made by the City to the United States or the State pursuant to this Amended CD, including, but not limited to, any Interest or stipulated penalties paid pursuant to Section IX (Payments for Response Costs) or XIV (Stipulated Penalties); (c) attorneys' fees and costs, except for reasonable attorneys' fees and costs necessarily related to obtaining access or institutional controls as required by Section VII (Property Requirements); (d) costs of any response activities the City performs that are not required under, or approved by EPA pursuant to this Amended CD; (e) costs related to the City's litigation, settlement, development of potential contribution claims, or identification of defendants; (f) internal costs of the City, including but not limited to, salaries, travel, or in-kind services, except for those costs that represent the work of employees of the City directly performing the Work; (g) any costs incurred by the City prior to the Effective Date; or (h) any costs incurred by the City pursuant to Section XIII (Dispute Resolution).

39. **Termination of Disbursements from the Special Account.** EPA's obligation to disburse funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account under this Amended CD shall terminate upon EPA's determination that the City: (a) has knowingly submitted a materially false or misleading Cost Summary and Certification; (b) has submitted a materially inaccurate or incomplete Cost Summary and Certification, and has failed to correct the materially inaccurate or incomplete Cost Summary and Certification within 30 days after being notified of, and given the opportunity to cure, the deficiency; or (c) failed to submit a Cost Summary and Certification as required by Paragraph 37 (Requests for Disbursement of Special Account Funds) within 30 days (or such longer period as EPA agrees) after being notified that EPA intends to terminate its obligation to make disbursements pursuant to this Section because of the City's failure to submit the Cost Summary and Certification as required by Paragraph 37. EPA's obligation to disburse funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account shall also terminate (a) upon EPA's assumption of performance of any portion of the Work pursuant to Paragraph 70 (Work Takeover), when such assumption of performance of the Work is not challenged by the City or, if challenged, is upheld under Section XIII (Dispute Resolution) and (b) upon exhaustion of funds in the Reilly Tar & Chemical SLP Site Disbursement Special Account. The City may dispute EPA's termination of special account disbursements under Section XIII.

40. **Recapture of Special Account Disbursements.** Upon termination of disbursements from the Reilly Tar & Chemical SLP Site Disbursement Special Account under Paragraph 39 (Termination of Disbursements from the Special Account), if EPA has previously disbursed funds from the Reilly Tar & Chemical SLP Site Disbursement Special Account for activities specifically related to the reason for termination, e.g., discovery of a materially false or misleading submission after disbursement of funds based on that submission, EPA shall submit a bill to the City for those amounts already disbursed from the Reilly Tar & Chemical SLP Site Disbursement Special Account specifically related to the reason for termination, plus Interest on that amount covering the period from the date of disbursement of the funds by EPA to the date of repayment of the funds by the City. Within 14 days after receipt of EPA's bill, the City shall reimburse the EPA Hazardous Substance Superfund for the total amount billed. Payment shall be made in accordance with Paragraph 32.a (instructions for future response cost payments). Upon receipt of payment, EPA may deposit all or any portion thereof in the Reilly Tar & Chemical SLP Site Special Account, the Reilly Tar & Chemical SLP Site Disbursement Special Account, or the EPA Hazardous Substance Superfund. The determination of where to deposit or how to use the funds shall not be subject to challenge by the City pursuant to the dispute resolution provisions of this Amended CD or in any other forum. The City may dispute EPA's determination as to recapture of funds pursuant to Section XIII (Dispute Resolution).

41. **Balance of Special Account Funds.** After EPA issues its written Certification of RA Completion pursuant to this Amended CD, and after EPA completes all disbursement to the City in accordance with this Section, if any funds remain in the Reilly Tar & Chemical SLP Site Disbursement Special Account, EPA may transfer such funds to the Reilly Tar & Chemical SLP Site Special Account or to the EPA Hazardous Substance Superfund. Any transfer of funds to the Reilly Tar & Chemical SLP Site Special Account or the EPA Hazardous Substance Superfund shall not be subject to challenge by the City pursuant to the dispute resolution provisions of this Amended CD or in any other forum.

XI. INDEMNIFICATION AND INSURANCE

42. The City's Indemnification of the United States and the State.

a. The United States and the State do not assume any liability by entering into this Amended CD or by virtue of any designation of the City as EPA's authorized representative under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e). The City shall indemnify, save, and hold harmless the United States and the State and their officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of the City, its officials, employees, agents, contractors, subcontractors, and any persons acting on the City's behalf or under its control, in carrying out activities pursuant to this Amended CD, including, but not limited to, any claims arising from any designation of the City as EPA's authorized representatives under Section 104(e) of CERCLA. Further, the City agrees to pay the United States and the State all costs they incur including, but not limited to, attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States and the State based on negligent or other wrongful acts or omissions of the City, its officials, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Amended CD. Neither the United States nor the State shall be held out as a party to any contract entered into by or on behalf of the

City in carrying out activities pursuant to this Amended CD. Neither the City nor any such contractor shall be considered an agent of the United States or the State. Notwithstanding the foregoing, the City's obligation to indemnify, save, or hold harmless the United States and the State shall be limited to the extent of the City's maximum liability under Minnesota law had such claim or cause of action been asserted against the City.

b. The United States and the State, respectively, shall give the City notice of any claim for which the United States or the State plans to seek indemnification pursuant to this Paragraph 42, and shall consult with the City prior to settling such claim.

43. The City covenants not to sue and agrees not to assert any claims or causes of action against the United States and the State, respectively, for damages or reimbursement or for set-off of any payments made or to be made to the United States or the State, arising from or on account of any contract, agreement, or arrangement between the City and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, the City shall indemnify, save and hold harmless the United States and the State with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between the City and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

44. **Insurance.** No later than 15 days following the Effective Date, the City shall secure, and shall maintain until the first anniversary after issuance of EPA's Certification of RA Completion pursuant to Paragraph 12 (Certification of RA Completion) of the Amended RAP, commercial general liability insurance with limits of \$1 million, for any one occurrence, and automobile liability insurance with limits of \$1 million, combined single limit, naming the United States and the State as additional insureds with respect to all liability arising out of the activities performed by or on behalf of the City pursuant to this Amended CD. In addition, for the duration of this Amended CD, the City shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of the City in furtherance of this Amended CD. The City shall provide to EPA and the State certificates of such insurance and a copy of each insurance policy within 15 days of securing such insurance. The City shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. If the City demonstrates by evidence satisfactory to EPA and the State that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, the City need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

XII. FORCE MAJEURE

45. "Force majeure," for purposes of this Amended CD, is defined as any event arising from causes beyond the control of the City, of any entity controlled by the City, or of the City's contractors that delays or prevents the performance of any obligation under this Amended CD despite the City's best efforts to fulfill the obligation. The requirement that the City exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring

and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" does not include financial inability to complete the Work or a failure to achieve the Performance Standards.

46. If any event occurs or has occurred that may delay the performance of any obligation under this Amended CD for which the City intends or may intend to assert a claim of force majeure, the City shall notify EPA's Project Coordinator orally or, in his or her absence, EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Superfund Division, EPA Region 5, within seven days of when the City first knew that the event might cause a delay. Within 14 days thereafter, the City shall provide in writing to EPA and the State an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; the City's rationale for attributing such delay to a force majeure; and a statement as to whether, in the opinion of the City, such event may cause or contribute to an endangerment to public health or welfare, or the environment. The City shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. The City shall be deemed to know of any circumstance of which the City, any entity controlled by the City, or the City's contractors or subcontractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude the City from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 45 and whether the City has exercised its best efforts under Paragraph 45, EPA may, in its unreviewable discretion, excuse in writing the City's failure to submit timely or complete notices under this Paragraph.

47. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Amended CD that are affected by the force majeure will be extended by EPA, after a reasonable opportunity for review and comment by the State, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. If EPA, after a reasonable opportunity for review and comment by the State, does not agree that the delay or anticipated delay has been or will be caused by a force majeure, EPA will notify the City in writing of its decision. If EPA, after a reasonable opportunity for review and comment by the State, agrees that the delay is attributable to a force majeure, EPA will notify the City in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

48. If the City elects to invoke the dispute resolution procedures set forth in Section XIII (Dispute Resolution) regarding EPA's decision, it shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, the City shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that the City complied with the requirements of Paragraphs 45 and 46. If the City carries this burden, the delay at issue shall be deemed not to be a violation by the City of the affected obligation of this Amended CD identified to EPA and the Court.

49. The failure by EPA to timely complete any obligation under the Amended CD or under the Amended RAP is not a violation of the Amended CD, provided, however, that if such failure prevents the City from meeting one or more deadlines in the Amended RAP, the City may seek relief under this Section.

XIII. DISPUTE RESOLUTION

50. Unless otherwise expressly provided for in this Amended CD, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes regarding this Amended CD. However, the procedures set forth in this Section shall not apply to actions by the United States or the State to enforce obligations of the City that have not been disputed in accordance with this Section.

51. A dispute shall be considered to have arisen when one party sends the other parties a written Notice of Dispute. Any dispute regarding this Amended CD shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed 20 days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute.

52. Statements of Position.

a. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be considered binding unless, within 14 days after the conclusion of the informal negotiation period, the City invokes the formal dispute resolution procedures of this Section by serving on the United States and the State a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the City. The Statement of Position shall specify the City's position as to whether formal dispute resolution should proceed under Paragraph 53 (Record Review) or 54.

b. Within 14 days after receipt of the City's Statement of Position, EPA will serve on the City its Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal dispute resolution should proceed under Paragraph 53 (Record Review) or 54. Within 7 days after receipt of EPA's Statement of Position, the City may submit a Reply. Copies of EPA's Statement of Position and any Reply by the City will be provided to the State when exchanged.

c. If there is disagreement between EPA and the City as to whether dispute resolution should proceed under Paragraph 53 (Record Review) or 54, the parties to the dispute shall follow the procedures set forth in the Paragraph determined by EPA to be applicable. However, if the City ultimately appeals to the Court to resolve the dispute, the Court shall determine which Paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 53 and 54.

53. **Record Review.** Formal dispute resolution for disputes pertaining to the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted

pursuant to the procedures set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action includes, without limitation, the adequacy or appropriateness of plans, procedures to implement plans, or any other items requiring approval by EPA under this Amended CD, and the adequacy of the performance of response actions taken pursuant to this Amended CD. Nothing in this Amended CD shall be construed to allow any dispute by the City regarding the validity of the provisions of the RODs.

a. An administrative record of the dispute shall be maintained by EPA and shall contain all statements of position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

b. The Director of the Superfund Division, EPA Region 5, will issue a final administrative decision resolving the dispute based on the administrative record described in Paragraph 53.a. This decision shall be binding upon the City, subject only to the right to seek judicial review pursuant to Paragraphs 53.c and 53.d.

c. Any administrative decision made by EPA pursuant to Paragraph 53.b shall be reviewable by this Court, provided that a motion for judicial review of the decision is filed by the City with the Court and served on all Parties within 10 days after receipt of EPA's decision. The motion shall include a description of the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Amended CD. The United States may file a response to the City's motion.

d. In proceedings on any dispute governed by this Paragraph, the City shall have the burden of demonstrating that the decision of the Superfund Division Director is arbitrary and capricious or otherwise not in accordance with law. Judicial review of EPA's decision shall be on the administrative record compiled pursuant to Paragraph 53.a.

54. Formal dispute resolution for disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law, shall be governed by this Paragraph.

a. The Director of the Superfund Division, EPA Region 5, will issue a final decision resolving the dispute based on the statements of position and reply, if any, served under Paragraph 52. The Superfund Division Director's decision shall be binding on the City unless, within 10 days after receipt of the decision, the City files with the Court and serves on the Parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Amended CD. The United States may file a response to the City's motion.

b. Notwithstanding Paragraph V (CERCLA § 113(j) record review of ROD and Work) of Section I (Background), judicial review of any dispute governed by this Paragraph shall be governed by applicable principles of law.

55. The invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of the City under this Amended CD,

except as provided in Paragraph 33 (Contesting Future Response Costs), as agreed by EPA, or as determined by the Court. Stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute, as provided in Paragraph 63. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Amended CD. In the event that the City does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIV (Stipulated Penalties).

XIV. STIPULATED PENALTIES

56. The City shall be liable for stipulated penalties in the amounts set forth in Paragraphs 57 and 58 to the United States and the State – with 50% payable to the United States and 50% payable to the State – for failure to comply with the requirements of this Amended CD specified below, unless excused under Section XII (Force Majeure). “Compliance” by the City shall include completion of all activities and obligations, including payments, required under this Amended CD, or any deliverable approved under this Amended CD, in accordance with all applicable requirements of law, this Amended CD, the Amended RAP, and any deliverables approved under this Amended CD, and within the specified time schedules established by and approved under this Amended CD.

57. Stipulated Penalty Amounts - Work (Including Payments and Excluding Deliverables).

a. The following stipulated penalties shall accrue per violation per day for failure to pay Future Response Costs (as specified in Paragraph 31) or failure to implement activities required by the Amended RAP:

Period of Noncompliance	Penalty Per Violation Per Day
1st through 14th day	\$500
15th through 30th day	\$1,000
31st day and beyond	\$5,000

58. Stipulated Penalty Amounts - Deliverables.

a. **Material Defects.** If an initially submitted or resubmitted deliverable contains a material defect, and the deliverable is disapproved or modified by EPA under Paragraph 11 due to such material defect, then the material defect shall constitute a lack of compliance for purposes of Paragraph 56. The provisions of Section XIII (Dispute Resolution) and Section XIV (Stipulated Penalties) shall govern the accrual and payment of any stipulated penalties regarding the City’s submissions under this Amended CD.

b. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate deliverables pursuant to the Amended CD:

Period of Noncompliance	Penalty Per Violation Per Day
1st through 14th day	\$300
15th through 30th day	\$600
31st day and beyond	\$2,000

59. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 70 (Work Takeover), the City shall be liable for a stipulated penalty in the amount of \$50,000. Stipulated penalties under this Paragraph are in addition to the remedies available under Paragraphs 28 (Access to Financial Assurance) and 70 (Work Takeover).

60. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Paragraph 11, during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies the City of any deficiency; (b) with respect to a decision by the Director of the Superfund Division, EPA Region 5, under Paragraph 53.b or 54.a of Section XIII (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that the City's reply to EPA's Statement of Position is received until the date that the Director issues a final decision regarding such dispute; or (c) with respect to judicial review by this Court of any dispute under Section XIII (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing in this Amended CD shall prevent the simultaneous accrual of separate penalties for separate violations of this Amended CD.

61. Following EPA's determination that the City has failed to comply with a requirement of this Amended CD, EPA may give the City written notification of the same and describe the noncompliance. EPA may send the City a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified the City of a violation.

62. All penalties accruing under this Section shall be due and payable to the United States and the State within 30 days after the City's receipt from EPA of a demand for payment of the penalties, unless the City invokes the Dispute Resolution procedures under Section XIII (Dispute Resolution) within the 30-day period. All payments to the United States under this Section shall indicate that the payment is for stipulated penalties and shall be made in accordance with Paragraph 32.a (instructions for future response cost payments). All payments to the State under this Section shall indicate that the payment is for stipulated penalties and shall be made in accordance with instructions to be provided by the State in conjunction with the penalty demand.

63. Penalties shall continue to accrue as provided in Paragraph 60 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement of the parties or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owed shall be paid to EPA and the State within 15 days after the agreement or the receipt of EPA's decision or order;

b. If the dispute is appealed to this Court and the United States prevails in whole or in part, the City shall pay all accrued penalties determined by the Court to be owed to EPA and the State within 60 days after receipt of the Court's decision or order, except as provided in Paragraph 63.c;

c. If the Court's decision is appealed by any Party, the City shall pay all accrued penalties determined by the Court to be owed to the United States and the State into an

interest-bearing escrow account, established at a duly chartered bank or trust company that is insured by the FDIC, within 60 days after receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every 60 days. Within 15 days after receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA and the State or to the City to the extent that they prevail.

64. If the City fails to pay stipulated penalties when due, the City shall pay Interest on the unpaid stipulated penalties as follows: (a) if the City has timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 63 until the date of payment; and (b) if the City fails to timely invoke dispute resolution, Interest shall accrue from the date of demand under Paragraph 62 until the date of payment. If the City fails to pay stipulated penalties and Interest when due, the United States or the State may institute proceedings to collect the penalties and Interest.

65. The payment of penalties and Interest, if any, shall not alter in any way the City's obligation to complete the performance of the Work required under this Amended CD.

66. Nothing in this Amended CD shall be construed as prohibiting, altering, or in any way limiting the ability of the United States or the State to seek any other remedies or sanctions available by virtue of the City's violation of this Amended CD or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to CERCLA Section 122(l), 42 U.S.C. § 9622(l), provided, however, that the United States shall not seek civil penalties pursuant to CERCLA Section 122(l) for any violation for which a stipulated penalty is provided in this Amended CD, except in the case of a willful violation of this Amended CD.

67. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Amended CD.

XV. COVENANTS BY THE UNITED STATES, THE STATE, AND HOPKINS

68. **Covenants for the City by United States.** Except as provided in Paragraph 69 (General Reservations of Rights), the United States covenants not to sue or to take administrative action against the City pursuant to CERCLA Sections 106 and 107(a) for the Work. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the satisfactory performance by the City of its obligations under this Amended CD. These covenants extend only to the City and do not extend to any other person.

69. **General Reservations of Rights.** The United States reserves, and this Amended CD is without prejudice to, all rights against the City with respect to all matters not expressly included within United States' covenants. Notwithstanding any other provision of this Amended CD, the United States reserves all rights against the City with respect to:

- a. liability for failure by the City to meet a requirement of this Amended CD;
- b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Material outside of the Site;

- c. liability based on the ownership of the Site by the City when such ownership commences after signature of this Amended CD by the City;
- d. liability based on the operation of the Site by the City when such operation commences after signature of this Amended CD by the City and does not arise solely from the City's performance of the Work;
- e. liability based on the City's transportation, treatment, storage, or disposal, or arrangement for transportation, treatment, storage, or disposal of Waste Material at or in connection with the Site, other than as provided in the ROD, the Work, or otherwise ordered by EPA, after signature of this Amended CD by the City;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. criminal liability;
- h. liability for violations of federal or state law that occur during or after implementation of the Work; and
- i. liability, prior to achievement of Performance Standards, for additional response actions that EPA determines are necessary to achieve and maintain Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the ROD, but that cannot be required pursuant to Paragraph 16 (Modification of RAP or Related Deliverables).

70. Work Takeover.

a. In the event EPA determines that the City: (1) has ceased implementation of any portion of the Work; (2) is seriously or repeatedly deficient or late in its performance of the Work; or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may, after a reasonable opportunity for review and comment by the State, issue a written notice ("Work Takeover Notice") to the City. Any Work Takeover Notice issued by EPA will specify the grounds upon which such notice was issued and will provide the City a period of 10 days within which to remedy the circumstances giving rise to EPA's issuance of such notice.

b. If, after expiration of the 10-day notice period specified in Paragraph 70.a, the City has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work as EPA deems necessary ("Work Takeover"). EPA will notify the City in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph 70.b. Funding of Work Takeover costs is addressed under Paragraph 28 (Access to Financial Assurance).

c. The City may invoke the procedures set forth in Paragraph 53 (Record Review), to dispute EPA's implementation of a Work Takeover under Paragraph 70.b. However, notwithstanding the City's invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 70.b until the earlier of (1) the date that the City remedies to EPA's satisfaction, the circumstances giving rise to EPA's issuance of the relevant Work Takeover

Notice, or (2) the date that a final decision is rendered in accordance with Paragraph 53 (Record Review) requiring EPA to terminate such Work Takeover.

71. Notwithstanding any other provision of this Amended CD, the United States and the State retain all authority and reserve all rights to take any and all response actions authorized by law.

72. **Covenants for the City by the State.** Except as provided in Paragraph 69 (General Reservations of Rights), the State covenants not to sue or to take administrative action against the City pursuant to CERCLA Sections 106 and 107(a) or applicable state law relating to the Work. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the satisfactory performance by the City of its obligations under this Amended CD. These covenants extend only to the City and do not extend to any other person.

73. **General Reservations of Rights.** The State reserves, and this Amended CD is without prejudice to, all rights against the City with respect to all matters not expressly included within the State's covenants. Notwithstanding any other provision of this Amended CD, the State reserves all rights against the City with respect to:

- a. liability for failure by the City to meet a requirement of this Amended CD;
- b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Material outside of the Site;
- c. liability based on the ownership of the Site by the City when such ownership commences after signature of this Amended CD by the City;
- d. liability based on the operation of the Site by the City when such operation commences after signature of this Amended CD by the City and does not arise solely from the City's performance of the Work;
- e. liability based on the City's transportation, treatment, storage, or disposal, or arrangement for transportation, treatment, storage, or disposal of Waste Material at or in connection with the Site, other than as provided in the ROD, the Work, or otherwise ordered by EPA, after signature of this Amended CD by the City;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. criminal liability; and
- h. liability for violations of federal or state law that occur during or after implementation of the Work.

74. **Covenants for the City by Hopkins.** Except as provided in Paragraph 75 (General Reservations of Rights), Hopkins covenants not to sue or to take other action against the City pursuant to CERCLA Sections 106 and 107(a) or applicable state law relating to the Work. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the satisfactory performance by the City of its obligations under this Amended CD. These covenants extend only to the City and do not extend to any other person.

75. **General Reservations of Rights.** Hopkins reserves, and this Amended CD is without prejudice to, all rights against the City with respect to all matters not expressly included within Hopkins' covenants. Notwithstanding any other provision of this Amended CD, Hopkins reserves all rights against the City with respect to:

- a. liability for failure by the City to meet a requirement of this Amended CD and such failure results in a material impact to Hopkins;
- b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Material outside of the Site;
- c. liability based on the ownership of the Site by the City when such ownership commences after signature of this Amended CD by the City;
- d. liability based on the operation of the Site by the City when such operation commences after signature of this Amended CD by the City and does not arise solely from the City's performance of the Work;
- e. liability based on the City's transportation, treatment, storage, or disposal, or arrangement for transportation, treatment, storage, or disposal of Waste Material at or in connection with the Site, other than as provided in the ROD, the Work, or otherwise ordered by EPA, after signature of this Amended CD by the City;
- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. criminal liability; and
- h. liability for violations of federal or state law that occur during or after implementation of the Work.

XVI. COVENANTS BY THE CITY

76. **Covenants by the City.** Subject to the reservations in Paragraph 78, the City covenants not to sue and agrees not to assert any claims or causes of action against the United States or the State with respect to the Work and this Amended CD, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund through CERCLA Sections 106(b)(2), 107, 111, 112 or 113, or any other provision of law;
- b. any claims under CERCLA Sections 107 or 113, RCRA Section 7002(a), 42 U.S.C. § 6972(a), or state law regarding the Work, past response actions regarding this Site, and this Amended CD;
- c. any claims arising out of response actions at or in connection with the Work, including any claim under the United States Constitution, the Minnesota Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law; or

d. any direct or indirect claim for disbursement from the Reilly Tar & Chemical SLP Site Special Account or Reilly Tar & Chemical SLP Site Disbursement Special Account, except as provided in Section X (Disbursement of Special Account Funds).

77. Except as provided in Paragraphs 80 (De Micromis Waiver of Claims by the City) and 86 (Res Judicata and Other Defenses), the covenants in this Section shall not apply if the United States or the State brings a cause of action or issues an order pursuant to any of the reservations in Section XV (Covenants by EPA and the State), other than in Paragraphs 69.a (claims for failure to meet a requirement of the Amended CD), 69.g (criminal liability), and 69.h (violations of federal/state law during or after implementation of the Work), but only to the extent that the City's claims arise from the same response action, response costs, or damages that the United States or the State is seeking pursuant to the applicable reservation.

78. The City reserves, and this Amended CD is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of the City's deliverables or activities.

79. Nothing in this Amended CD shall be deemed to constitute approval or preauthorization of a claim within the meaning of CERCLA Section 111, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

80. De Micromis Waiver of Claims by the City.

a. The City agrees not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under CERCLA Sections 107(a) and 113) that it may have for all matters relating to the Site against any person where the person's liability to the City with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials;

b. **Exceptions to Waiver.** The waiver under this Paragraph 80 shall not apply with respect to any defense, claim, or cause of action that the City may have against any person otherwise covered by such waiver if such person asserts a claim or cause of action relating to the Site against the City.

XVII. EFFECT OF SETTLEMENT; CONTRIBUTION

81. Except as provided in Paragraph 80 (Waiver of Claims by the City), nothing in this Amended CD shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Amended CD. Except as provided in Section XVI (Covenants by the City), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to CERCLA Section 113, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action that each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Amended CD diminishes the right of the United States, pursuant to CERCLA Section 113(f)(2) and (3), 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

82. The Parties agree, and by entering this Amended CD this Court finds, that this Amended CD constitutes a judicially-approved settlement pursuant to which the City has, as of the Effective Date, resolved liability to the United States within the meaning of CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by CERCLA Section 113(f)(2), or as may be otherwise provided by law, for the “matters addressed” in this Amended CD. The “matters addressed” in this Amended CD are all response actions taken or to be taken and all response costs incurred or to be incurred, at or in connection with the Site, by the United States or any other person; provided, however, that if the United States exercises rights under the reservations in Section XV (Covenants by the United States and the State), other than in Paragraphs 69.a (claims for failure to meet a requirement of the Amended CD), 69.g (criminal liability), or 69.h (violations of federal/state law during or after implementation of the Work), the “matters addressed” in this Amended CD will no longer include those response costs or response actions.

83. The Parties further agree, and by entering this Amended CD this Court finds, that the complaint filed by the United States in this action is a civil action within the meaning of CERCLA Section 113(f)(1), 42 U.S.C. § 9613(f)(1), and that this Amended CD constitutes a judicially-approved settlement pursuant to which the City has, as of the Effective Date, resolved liability to the United States within the meaning of CERCLA Section 113(f)(3)(B), 42 U.S.C. § 9613(f)(3)(B).

84. The City shall, with respect to any suit or claim brought by it for matters related to this Amended CD, notify the United States and the State in writing no later than 60 days prior to the initiation of such suit or claim.

85. The City shall, with respect to any suit or claim brought against it for matters related to this Amended CD, notify in writing the United States and the State within 10 days after service of the complaint on the City. In addition, the City shall notify the United States and the State within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial.

86. **Res Judicata and Other Defenses.** In any subsequent administrative or judicial proceeding initiated by the United States, the State, or Hopkins for injunctive relief, recovery of response costs, or other appropriate relief relating to the Site, the City shall not assert, and may

not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States, the State, or Hopkins in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XV (Covenants by the United States and the State).

XVIII. ACCESS TO INFORMATION

87. The City shall provide to EPA, the State, and Hopkins upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as “Records”) within the City’s possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Amended CD, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. The City shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

88. Privileged and Protected Claims.

a. The City may assert that all or part of a Record requested by EPA, the State, or Hopkins is privileged or protected as provided under federal law, in lieu of providing the Record, provided the City complies with Paragraph 88.b, and except as provided in Paragraph 88.c.

b. If the City assert a claim of privilege or protection, it shall provide EPA, the State, or Hopkins with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record’s contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, the City shall provide the Record to EPA, the State, or Hopkins in redacted form to mask the privileged or protected portion only. The City shall retain all Records that it claims to be privileged or protected until EPA, the State, or Hopkins have had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the City’s favor.

c. The City may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that the City is required to create or generate pursuant to this Amended CD.

89. **Business Confidential Claims.** The City may assert that all or part of a Record provided to EPA, the State, or Hopkins under this Section or Section XIX (Retention of Records) is business confidential to the extent permitted by and in accordance with CERCLA Section 104(e)(7), 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). The City shall segregate and clearly identify all Records or parts thereof submitted under this Amended CD for which the City asserts business confidentiality claims. Records submitted to EPA determined to be

confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA and the State, or if EPA has notified the City that the Records are not confidential under the standards of CERCLA Section 104(e)(7) or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to the City.

90. If relevant to the proceeding, the Parties agree that validated sampling or monitoring data generated in accordance with the Amended RAP and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding under this Amended CD.

91. Notwithstanding any provision of this Amended CD, EPA and the State retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIX. RETENTION OF RECORDS

92. Until 10 years after EPA's Certification of Work Completion under Paragraph 13 (Certification of Work Completion) of the Amended RAP, the City shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to its or any other person's liability under CERCLA with respect to the Site. The City must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that the City (and its contractors and agents) must retain, in addition, copies of all data generated during the performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

93. At the conclusion of this record retention period, the City shall notify the United States and the State at least 90 days prior to the destruction of any such Records, and, upon request by the United States or the State, and except as provided in Paragraph 88 (Privileged and Protected Claims), the City shall deliver any such Records to EPA or the State.

XX. NOTICES AND SUBMISSIONS

94. All approvals, consents, deliverables, modifications, notices, notifications, objections, proposals, reports, and requests specified in this Amended CD must be in writing unless otherwise specified in this Amended CD, the Amended RAP, or by agreement of the Parties. Whenever, under this Amended CD, notice is required to be given, or a report or other document is required to be sent, by one Party to another, it must be directed to the person(s) specified below at the address(es) specified below. Any Party may change the person and/or address applicable to it by providing notice of such change to all Parties. All notices under this Section are effective upon receipt, unless otherwise specified. Notices required to be sent to EPA, and not to the United States, should not be sent to the DOJ. Except as otherwise provided, notice to a Party by email (if that option is provided below) or by regular mail in accordance with this Section satisfies any notice requirement of the Amended CD regarding such Party.

As to the United States:

EES Case Management Unit
U.S. Department of Justice
Environment and Natural Resources Division
P.O. Box 7611
Washington, DC 20044-7611
eesdcopy.enrd@usdoj.gov
Re: DJ # 90-7-1-21/2

As to EPA:

Director, Superfund Division
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. SR-6J
Chicago, IL 60604

and:

Nabil Fayoumi
EPA Project Coordinator
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. SR-6J
Chicago, IL 60604
fayoumi.nabil@epa.gov
312-886-6840

As to the Supervisory Accountant:

Richard Hackley
Chief, Program Accounting & Analysis Section
Comptroller Branch
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hackley.richard@epa.gov

As to EPA Cincinnati Finance Center:

EPA Cincinnati Finance Center
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268
cinwd_acctsreceivable@epa.gov

As to the State:

Crague Biglow
Supervisor, Site Remediation 2
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194
crague.biglow@state.mn.us

and:

Jennifer Jevnisek
State Project Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194
jennifer.jevnisek@state.mn.us

As to the City:

Reilly Tar Site Project Coordinator
City of St. Louis Park
7305 Oxford Street
St. Louis Park, MN 55426-4512

and

City Clerk
City of St. Louis Park
5005 Minnetonka Blvd.
St. Louis Park, MN 55426-2216

As to Hopkins

City of Hopkins
City Manager
1010 1st Street South
Hopkins, MN 55343

XXI. RETENTION OF JURISDICTION

95. This Court retains jurisdiction over both the subject matter of this Amended CD and the City for the duration of the performance of the terms and provisions of this Amended CD for the purpose of enabling any of the Parties to apply to the Court at any time for such further order, direction, and relief as may be necessary or appropriate for the construction or modification of this Amended CD, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XIII (Dispute Resolution).

XXII. APPENDICES

96. The following appendices are attached to and incorporated into this Amended CD:

“Appendix A” is the Amended RAP.

“Appendix B” is the description and/or map of the Site.

“Appendix C” is the financial test demonstration.

XXIII. MODIFICATION

97. Except as provided in Paragraph 16 (Modification of RAP or Related Deliverables), material modifications to this Amended CD shall be in writing, signed by the United States, the State, and the City, and shall be effective upon approval by the Court. Material modifications to the Amended RAP shall be in writing, signed by the United States and the City, and shall be effective upon approval by the Court. Before providing its approval to any material modification to the Amended RAP, the United States will provide the State with a reasonable opportunity to review and comment on the proposed modification. A modification to the Amended RAP shall be considered material if it implements a ROD amendment that fundamentally alters the basic features of the selected remedy within the meaning of 40 C.F.R. § 300.435(c)(2)(ii). Except as provided in Paragraph 16, non-material modifications to this Amended CD, including the Amended RAP, shall be in writing and shall be effective when signed by duly authorized representatives of the United States and the City.

98. Any modification that does not affect the obligations of or the protections afforded to the Passive Parties or Hopkins may be executed without the signatures of the Passive Parties or Hopkins.

99. Nothing in this Amended CD shall be deemed to alter the Court’s power to enforce, supervise, or approve modifications to this Amended CD.

XXIV. DISMISSAL OF CERTAIN PARTIES

100. All parties to the 1986 Consent Decree hereby stipulate that, to the extent final judgement has not been entered pursuant to the 1986 Consent Decree, all claims by or against Reilly Tar and its successors are dismissed with prejudice and without costs to any party and Reilly Tar and its successors shall no longer be a party to this action or to the Amended Consent Decree.

101. The Parties agree that the Minnesota Department of Health no longer needs to be identified as a separate party to this action. Accordingly, the United States, the State, and the Minnesota Department of Health hereby stipulate that, to the extent final judgment has not been entered pursuant to the 1986 Consent Decree, the Minnesota Department of Health’s claims are dismissed with prejudice and without costs to any Party and the Minnesota Department of Health (separate from the State) shall no longer be a party to this action or to the Amended Consent Decree.

102. Effective upon entry of this Amended CD, this action shall be captioned as “In re Reilly Tar & Chemical Site” Civ. No. 4-80-469 and the City and the Passive Parties consent to the Court’s continued jurisdiction over the City and the Passive Parties pursuant to this Amended CD.

XXV. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

103. This Amended CD shall be lodged with the Court for at least 30 days for public notice and comment in accordance with CERCLA Section 122(d)(2), 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Amended CD disclose facts or considerations that indicate that the Amended CD is inappropriate, improper, or inadequate. The City consents to the entry of this Amended CD without further notice.

104. If for any reason the Court should decline to approve this Amended CD in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

XXVI. SIGNATORIES/SERVICE

105. Each undersigned representative of the City, Hopkins, HRA, Oak Park Village Associates, and Philip's Investment Co., and the State, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Amended CD and to execute and legally bind such Party to this document.

106. The City agrees not to oppose entry of this Amended CD by this Court or to challenge any provision of this Amended CD unless the United States has notified the City in writing that it no longer supports entry of the Amended CD.

XXVII. FINAL JUDGMENT

107. This Amended CD and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties regarding the settlement embodied in the Amended CD. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Amended CD.

108. Upon entry of this Amended CD by the Court, this Amended CD shall constitute a final judgment between and among the United States, the State, and the City. The Court enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED THIS __ DAY OF _____, 2019.

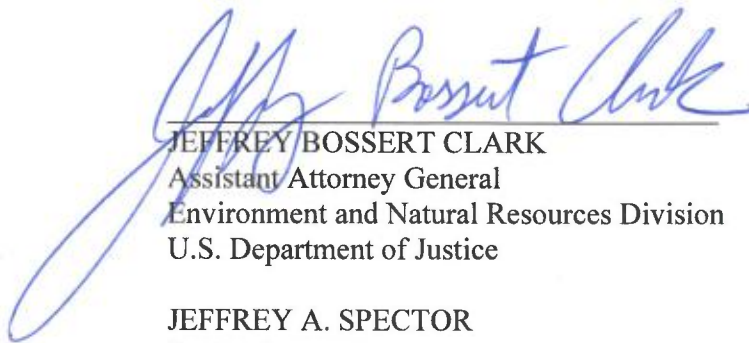
United States District Judge

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

FOR THE UNITED STATES OF AMERICA:

10/26/19

Dated



JEFFREY BOSSERT CLARK
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

JEFFREY A. SPECTOR
Senior Attorney
U.S. Department of Justice
Environment and Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Washington, D.C. 20044-7611

ERICA H. MacDONALD
United States Attorney
District of Minnesota
FRIEDRICH A.P. SIEKERT
Assistant United States Attorney
District of Minnesota
600 United States Courthouse
300 South Fourth Street
Minneapolis, MN 55415
(612) 664-5697
Fred.Siekert@usdoj.gov

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

FOR THE UNITED STATES OF AMERICA:



DOUGLAS BALLOTI
Director
Superfund & Emergency Management Division
Region 5
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, IL 60604



STEVEN R. KAISER
Associate Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd.
Chicago, IL 60604

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

FOR THE STATE OF MINNESOTA:

Date: 10/3/2019

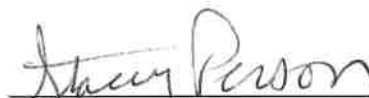


LAURA BISHOP
Commissioner
Minnesota Pollution Control Agency

Approved as to form and legality:

OFFICE OF THE ATTORNEY GENERAL

Date: 10/7/2019




STACEY PERSON
Assistant Attorney General
445 Minnesota Street Suite 900
Saint Paul, MN 55101-2127
(651) 757-1412
stacey.person@ag.state.mn.us

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site


FOR THE CITY OF ST. LOUIS PARK, MN:

8/12/19
Dated



JAKE SPANO
Mayor, City of St. Louis Park
5005 Minnetonka Boulevard
St. Louis Park, MN 55416-2216

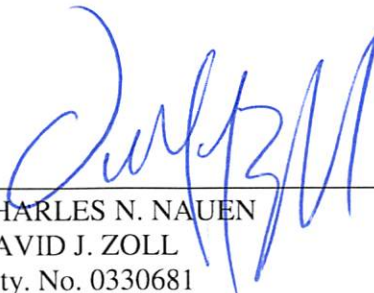
8/12/19
Dated



TOM HARMENING
City Manager, City of St. Louis Park
5005 Minnetonka Boulevard
St. Louis Park, MN 55416-2216

Approved as to form and legality:

8/22/19
Dated

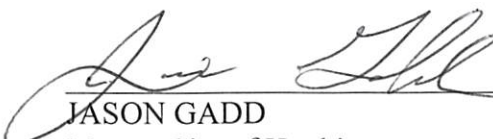


CHARLES N. NAUEN
DAVID J. ZOLL
Atty. No. 0330681
LOCKRIDGE GRINDAL NAUEN P.L.L.P.
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cnnauen@locklaw.com
djzoll@locklaw.com

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site


FOR THE CITY OF HOPKINS, MN:

Dated



JASON GADD
Mayor, City of Hopkins
1010 1st Street South
Hopkins, MN 55343

Dated



MICHAEL MORNSON
City Manager, City of Hopkins
1010 1st Street South
Hopkins, MN 55343

Approved as to form and legality:

8/2/2019
Dated




SCOTT J. RIGGS
Atty. No. 0244788
KENNEDY & GRAVEN, CHARTERED
470 U.S. Bank Plaza
200 South Sixth Street
Minneapolis, MN 55402
(612) 337-9300
sriggs@kennedy-graven.com

Agent Authorized to Accept Service on Behalf of Above-signed Party: Name (print): _____
Title: _____
Company: _____
Address: _____
Phone: _____
email: _____

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

**FOR VERTELLUS SPECIALTIES INC. (n/k/a VSI
LIQUIDATING INC.):**

8/27/19
Dated



David MacGreevey
Liquidating Trustee of the VSI Liquidating Trust
c/o Zolfo Cooper, 1114 Avenue of the Americas
41st Floor
New York, NY 11036

Agent Authorized to Accept Service on Behalf of Above-signed Party: Name (print): _____
Title: _____
Company: _____
Address: _____
Phone: _____
email: _____

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

**FOR THE HOUSING AND REDEVELOPMENT
AUTHORITY OF ST. LOUIS PARK n/k/a THE ST.
LOUIS PARK ECONOMIC DEVELOPMENT
AUTHORITY:**

8/19/19

Dated



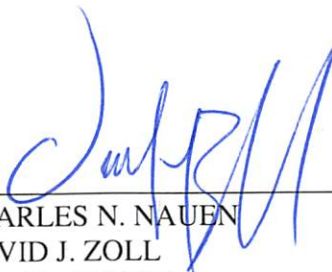
STEVE HALLFIN

President, St. Louis Park Economic Development Authority
5005 Minnetonka Boulevard
St. Louis Park, MN 55416-2216

Approved as to form and legality:

8/22/19

Dated



CHARLES N. NAUEN

DAVID J. ZOLL

Atty. No. 0330681

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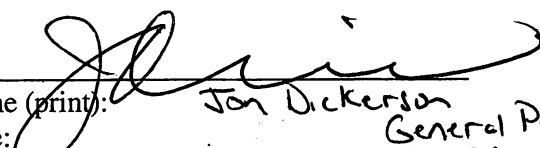
djzoll@locklaw.com

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

FOR OAK PARK VILLAGE ASSOCIATES:

7/11/2019

Dated


Name (print): Jon Dickerson
Title: General Partner
Address: 114 SE 5th St., Suite 127
Minneapolis, MN 55414

Agent Authorized to Accept Service
on Behalf of Above-signed Party:

Name (print): Jon Dickerson
Title: President
Company: Diversified Equities Corporation
Address: 114 SE 5th St., Suite 127
Minneapolis, MN 55414
Phone: 612-378-1085
email: jdickerson@dec-mn.com

Signature Page for Amended CD regarding the Reilly Tar & Chemical Corp.
(St. Louis Park Plant) Superfund Site

FOR PHILIP'S INVESTMENT CO.:

9/25/19

Dated

PHILIP Weber

Name (print):

Title: owner

Address: 3401 LOUISIANA AVE. S.
SLP, MN 55426

Agent Authorized to Accept Service
on Behalf of Above-signed Party:

Name (print):

PHILIP Weber

Title:

owner

Company:

PHILIP'S INVESTMENT CO

Address:

3401 LOUISIANA AVE S

SLP MN 55426

Phone:

952-929-6810

email:

ptpartyplanner@hotmail.com

APPENDIX A

Prepared for

City of St. Louis Park, Minnesota

**AMENDED
REMEDIAL ACTION PLAN
Reilly Tar & Chemical Site**

Prepared by

Geosyntec 
consultants

100 Washington Avenue South
Suite 1590
Minneapolis, MN 55401

Project Number MN0949A

June 2019

Amended Remedial Action Plan
 Reilly Tar & Chemical Site



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Amended Remedial Action Plan
 Reilly Tar & Chemical Site

Geosyntec[®]
 consultants

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1. INTRODUCTION

The 80-acre Reilly Tar & Chemical Corp. (St. Louis Park Plant) Site (Site) is a former coal tar refining and creosote wood treating business located near the intersection of Louisiana Avenue and U.S. Highway 7 in St. Louis Park, Minnesota as illustrated on Figure 1. The Site is bounded to the north by West 32nd Street and to the south by Walker Street. Most of the Site is located west of Louisiana Avenue but a small portion extends to the east of Louisiana Avenue.

The purpose of this document is to describe remedial actions to be taken to implement ongoing elements of the Records of Decision (RODs) for the Site in order to protect human health and the environment from chemicals of interest (COIs) from the Site. COIs are described in Section 1.1. Specific remedial action objectives (RAOs) are described in Section 1.4.

1.1 Background

Site-related COIs include the polycyclic aromatic hydrocarbons (PAHs) and phenolics typically associated with creosote. After the refining and wood treating operations ceased in 1973, some PAHs and other COIs listed in Tables 1, 2 and 3 (Site-related COIs) were detected in soil at the Site, some at concentrations that may cause a direct contact risk to users of the Site. In addition, some Site-related COIs were found in groundwater at and near the Site at levels that could cause a risk to human health. Site-related COIs were detected in the Drift, Platteville, St. Peter, Prairie du Chien, Jordan and Wonewoc aquifers. Table 1 lists Site-related COIs for which U.S. Environmental Protection Agency (EPA) has established a Maximum Contaminant Level (MCL), or Minnesota Department of Health (MDH) has established a Health-Risk Limit (HRL) or Health-Based Value (HBV). Table 2 lists the phenolics for which EPA has established a MCL or MDH has established a HRL or HBV. Historic data reported phenolics present at the Site as total phenolics measured using EPA method 420 and data indicating which phenolics are present at the Site is limited. Table 3 lists PAHs that were included in the 1986 Consent Decree (CD), but for which no MCL, HRL or HBV have been established.

In 1984, EPA signed a ROD selecting an initial remedy to protect drinking water in St. Louis Park. In 1986, a CD was signed between the United States, the State of Minnesota, Reilly Tar & Chemical Corporation, the Housing and Redevelopment Authority of St. Louis Park, Oak Park Village Associates, Philip's Investment Co., the City of St. Louis Park and the City of Hopkins. It contained a remedial action plan (RAP) designed to protect the public health and welfare and the environment from the known releases, or threatened releases, of chemical substances at, on, or from the Site. This was set forth as Exhibit A to the CD and was referred to jointly as the "CD-RAP".

In 1986, EPA signed a ROD to select a remedy for the Site, consistent with the CD-RAP. In 1990, 1992 and 1995, EPA and Minnesota Pollution Control Agency (MPCA) signed an additional three RODs to select remedies for additional areas at or near the Site, consistent with the CD-RAP. In 1997, EPA and MPCA modified the 1995 ROD in an Explanation of Significant Differences (ESD).

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By 2016, the City and the Agencies (EPA, MPCA, and MDH) agreed that revisions to the CD-RAP were needed. These revisions were needed to accommodate changes in the conceptual site model (CSM), toxicological knowledge of PAHs reflected in new health-based criteria (e.g., HRLs and HBVs), and status of the parties.

This document was created to address these revisions by providing an Amended RAP to protect human health and the environment. This protection is to be achieved through the implementation of the Amended RAP and its supplemental aquifer plans that address RAOs for the Site. The RAOs are listed in Section 1.4.

1.2. Abbreviations and Definitions

As used in this Amended RAP, the following abbreviations, words and phrases have the meanings defined below.

Agencies	EPA, MPCA, MDH and their successors
BaP	Benzo(a)pyrene
CD-RAP	Consent Decree – Remedial Action Plan dated September 4, 1986
COI	Chemical of interest as listed in Tables 1 – 3
City	City of St. Louis Park, Minnesota
cPAH	Carcinogenic Polycyclic Aromatic Hydrocarbon
CSM	Conceptual site model
Contaminated Groundwater	Groundwater with COI concentration(s) greater than the values listed in Tables 1 and 2
Deeper Aquifer	Prairie du Chien, Jordan, Wonewoc or Mt. Simon / Hinckley aquifer
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
GTF	Groundwater treatment facility
HRL	Health risk limit set by the MDH
HBV	Health based value set by the MDH
ICIAP	Institutional Control Implementation and Assurance Plan
MCL	Maximum contaminant level set by the EPA
MPCA	Minnesota Pollution Control Agency
MDH	Minnesota Department of Health

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PAH	Polycyclic aromatic hydrocarbon
RAO	Remedial Action Objective
ROD	Record of Decision
RPF	Relative potency factor
SAP	Sampling and Analysis Plan
Shallower Aquifer	Drift, Platteville or St. Peter aquifer
Site	The Reilly Tar & Chemical Corporation Site as described in Section 1

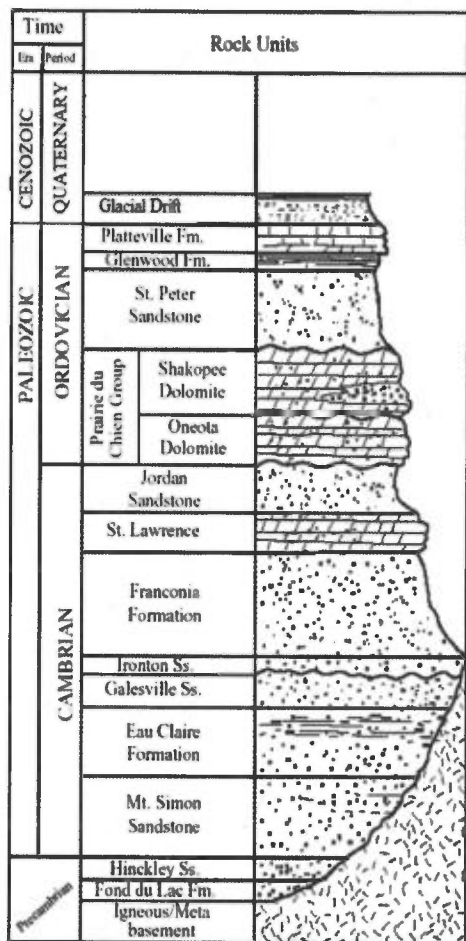
1.3. Conceptual Site Model

The CSM describes i) the geologic setting of the Site, ii) the COIs, iii) potential COIs migration pathways, iv) environmental fate of COIs, and v) potential COIs receptors and exposure pathways. Reflecting current understanding, this CSM provides a science-based rationale for remedy decisions and is intended to be adaptable to new information (e.g., on regional or local geologic conditions) that may be developed in the future.

1.3.1 Geologic Setting

A series of geologic units underlies the Site, each with its own characteristics that control the potential migration of COIs. Surficial soils were deposited by the Des Moines Lobe of Wisconsinan glaciation and consist of sand, loamy sand, and gravel; in places, relatively thin loess deposits overlie these deposits. Artificial fill has been placed at the surface at the Site. The unconsolidated glacial deposits, which make up the Drift aquifer, underlie the entire area and fill bedrock valleys carved by pre-glacial surface water flow (Balaban, 1989).

Bedrock units from top downward are the Ordovician Platteville Formation, Glenwood Formation, St. Peter Formation and Prairie du Chien Group and Cambrian Jordan Sandstone, St. Lawrence Formation, Wonec Formation, Eau Claire Formation, and Mt. Simon Formation. Among them, the Glenwood, St. Lawrence and Eau Claire formations are considered as protective confining layers. The Prairie du Chien/Jordan formation is the primary drinking water aquifer for the Twin Cities Metropolitan area. The uppermost bedrock formation at most locations in the Site area is the Platteville formation. There is local variability in the depth and thickness of the geologic units. For example, drift-filled bedrock valleys, located southeast of the Site near Wooddale Avenue and Minnesota Highway 7 and north of Excelsior Boulevard and Alabama Avenue, cut through the Platteville and Glenwood to the St. Peter Sandstone (Figure 2). The stratigraphic relationships are summarized in the following stratigraphic column (Ojakangas, 1982), with approximate depths based on information from the well log for W23, which is located on Site (Figure 3).



- Stratigraphy taken from Well W23**
- Water Table approx. 10 ft.
 - 0 - 66 ft. Glacial Drift
 - 66 - 89 ft. Platteville Formation
 - 89 - 252 ft. St. Peter Sandstone
 - 252 - 370 ft. Prairie du Chien
 - 370 - 468 ft. Jordan Sandstone
 - 468 - 510 ft. St. Lawrence Formation
 - 510 - 638 ft. Franconia Formation
 - 638 - 699 ft. Ironton - Galesville (Wonewoc)
 - 699 - 789 ft. Eau Claire
 - 789 - 909 ft. Mount Simon

Some elements of the CSM apply to each of the aquifers at the Site. Regionally, the Site-affected aquifers are on the west flank of the Twin Cities Basin and bedrock slopes gently to the east. In St. Louis Park, water levels in the bedrock aquifers are lower in progressively deeper layers, creating a downward vertical hydraulic gradient. Also, a regional horizontal hydraulic gradient of 10 feet per mile is common and groundwater generally flows to the east southeast (USGS, 1984a, 1990). Groundwater use varies between bedrock units, with the Prairie du Chien and Jordan Aquifers (approximately 80%) and Mount Simon - Hinckley Aquifer (the remaining 20%) supplying all the City's drinking water. Some industrial facilities in the area also use water from the Prairie du Chien and Jordan Aquifers in their operations. The other aquifers are not known to be currently used for drinking water supply in areas affected by the Site.

1.3.2 COIs

From 1917 until 1972, Reilly used the Site for coal-tar distillation and wood treatment. Historical site features are depicted in Appendix A. Plant operations were primarily located in the south-

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central and south-eastern parts of the Site (Appendix A). Coal tar and creosote wastes were found to have impacted soil and groundwater at the Site including aquifers relied on for municipal drinking water supply.

Coal-tar derivatives entered the groundwater system at the Site through three major paths (USGS, 1984a):

1. Spills and drippings on the Site that percolated through the unsaturated zone to the water table;
2. Surface runoff and plant process-water discharge to ponds, ditches, depressions and wetlands on and south of the Site; and
3. Movement of coal tar directly into bedrock aquifers through Reilly well W23 and potentially W105.

The released coal tar and creosote materials were organic liquids, generally more dense and viscous than water, containing a range of hydrocarbon chemical constituents with varying solubility and volatility consisting of PAHs and specific VOCs such as benzene and naphthalene. Impacts are monitored based on Site-related COIs, which are listed in Tables 1 – 3.

Contamination in the Prairie du Chien and Jordan Aquifers was known to exist as early as 1932 when the City drilled its first water supply well near 36th Street and Alabama Avenue and residents complained about creosote taste and odor in the water. The current extent of Site COIs is influenced by chemical properties (such as solubility, viscosity and hydrophobicity), transport mechanisms (such as advection and diffusion), and attenuation (such as that due to sorption, dilution and biological degradation).

While not Site-related, chlorinated organic compounds used as industrial solvents are also present in area groundwater (USGS, 1984b). The chlorinated solvent VOCs are being investigated by the MPCA and EPA as part of a separate Superfund site (MPCA SRS377). In addition, benzene from sources that are not Site-related is present in groundwater. For example, benzene and non-aqueous phase liquid (NAPL) from a petroleum release site (Leak Site 565) were detected in monitoring wells near Alabama Avenue and Excelsior Boulevard. Benzene releases from at least 30 other petroleum leak sites in the Site area have been documented by the MPCA (<https://www.pca.state.mn.us/data/whats-my-neighborhood>).

1.3.3 Potential Migration Pathways

Potential migration pathways for COIs at the surface include i) disturbance of overlying contaminated materials left in place following erosion of cover soils and ii) migration of vapor-phase contamination from covered contaminated materials and/or contaminated groundwater to nearby homes or businesses.

Potential migration pathways for COIs in the subsurface include movement of COIs as dissolved constituents of groundwater flowing through natural pathways or man-made conduits (i.e., multi-

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aquifer wells). These are described in the following sections for the unsaturated zone and the groundwater zone.

1.3.3.1 Unsaturated (Vadose) Zone

Petroleum, coal tar, and creosote materials impacted the unsaturated zone throughout the Site. These materials included dense non-aqueous phase liquids (DNAPL), sludges or solid coal tar-like materials, and dissolved COIs leaching through Site soils. The City completed capping and filling of exposed material in the bog area, located south of the Site, in 1986, as documented in a letter report dated May 28, 1986 (City of St. Louis Park, 1986). The City performed a soil investigation of an area south of the bog area, with results reported in the April 1989 Soil Investigation Report. EPA and MPCA did not require deed notices for this area based on the report. During construction of multi-family housing units and park development ongoing since 1973, various entities have placed clean soil cover over the Site to address risk of direct contact with contaminated soil. Based on observations of the City, the soil cover is thought to be not less than six inches and more typically one to three feet thick (EPA, 2016). Redevelopment of the site has resulted in approximately 30% of the land area of the Site being covered by pavement, buildings, or other impervious cover.

Following investigation of the vapor intrusion pathway, EPA concluded that there was a complete vapor intrusion pathway at the Site, but risks from exposure were below or within the acceptable risk range (EPA, 2013).

1.3.3.2 Drift

Some areas of the Site where coal tar liquids were handled, stored, or discharged, including the closed surface depressions and water-table ponds formerly on and south of the Site, were migration pathways for creosote-like organic liquid to migrate to the Drift Aquifer (USGS, 1984a). A portion of the organic liquids moved downward through the groundwater zone - being denser than water, and moved more slowly than water - being more viscous and hydrophobic. Residual immobile material, including DNAPL, likely remains in the pore spaces of soil matrix through which the organic liquid migrated. More soluble constituents in the organic liquid were preferentially leached by groundwater over time, which would tend to have left a less soluble, denser, more viscous, and less mobile liquid in place.

The Drift Aquifer (about 94-125 feet thick) is composed of alternating layers of sand and gravel that are separated by discontinuous till and clay. While considered one hydraulic unit in this plan, three sub-units each with varying hydraulic properties comprise the drift: Upper, Middle and Lower (Lindgren, 1995).

The sand and gravel units are relatively permeable (Table 4) and overall groundwater flow is preferentially horizontal in an east-southeast direction. A laterally continuous confining layer to inhibit contaminant migration between the Drift and Platteville aquifers has not been identified on Site.

1.3.3.3 Platteville

Site-related COIs likely entered the Platteville Aquifer via migration from the Drift and via leaky well casings, particularly at well W23. Between approximately 1917 and 1932, well W23 existed with an open hole construction through the Platteville and extending below the Prairie du Chien into the Mt. Simon. DNAPL coated the rock surfaces of the Platteville, as viewed in video logs of well W23 made in 1987 (Reilly Industries, 1987). Pumping from W23 would have likely resulted in migration of COIs in the Platteville toward W23.

The Platteville is an extensively fractured, carbonate bedrock layer (0-29 feet thick in the Site area). Locally, it is subdivided into four members based on lithology and bedding types: from top to bottom they are the Magnolia, Hidden Falls, Mifflin and Pecatonica. The Magnolia has systematic vertical fractures that may provide a hydraulic connection with the overlying Drift. Horizontal bedding plane fractures that interconnect systematic vertical fractures are predominant in the Magnolia and to a lesser extent in the Mifflin. The Magnolia and Hidden Falls Members are underlain by discrete aquitards. The Magnolia, Hidden Falls and Mifflin Members typically have numerous vertical fractures that terminate in the Hidden Falls and Magnolia aquitards whereas for the Mifflin vertical fractures terminate in the underlying Pecatonica and Glenwood Formations. In some areas, the Platteville provides adequate quantities of water to wells and elsewhere may act as a confining layer. This “hybrid” nature of the Platteville (i.e., both aquifer and aquitard) was described by Anderson, et al. (2011). The hydraulic conductivities are highest in the bedding-plane fractures at the Hidden Falls and Magnolia contacts with a range of estimated hydraulic conductivity of 3,500 to 55,000 feet/day (Runkel et al., 2015). The average horizontal hydraulic conductivity of the upper part of the Platteville (i.e., Magnolia Member and uppermost few inches of the Hidden Falls Member) is approximately 500 feet/day (Runkel et al., 2015). The Hidden Falls, Mifflin and Pecatonica Members typically have markedly lower horizontal hydraulic conductivity values ranging from 10^{-4} to a few feet per day (Anderson et al., 2011).

The Platteville is underlain by the Glenwood Shale confining unit, which impedes downward groundwater flow. Based on interpretation by the MGS and existing monitoring well logs in the area, a drift-filled bedrock valley cuts through the Platteville and Glenwood southeast of the Site (Figure 2) forming a potential hydraulic pathway where the Drift directly overlies the St. Peter Sandstone.

1.3.3.4 St. Peter

Site-related COIs have entered the St. Peter Sandstone via leakage from overlying strata and via multi-aquifer wells, particularly W23. Leaking casing from the former Reilly Plant process well W23 and possibly the old sugar beet plant well W105 allowed migration from shallower aquifers into the St. Peter. The St. Peter is more susceptible to contamination where the Platteville and Glenwood formations are absent, and the St. Peter directly underlies the Drift.

The Tonti Member of the St. Peter Sandstone consists of a fine to medium friable quartz arenite (about 95 feet thick) and is underlain by the Pigs Eye Member, which consists of discontinuous

varying thickness of mudstone, siltstone, and shale interbedded with very coarse sandstone in the basal St. Peter (about 5 - 65 feet thick). The Tonti Member is marked with vertical systematic fractures that are interconnected by horizontal bedding plane fractures that result in high hydraulic conductivity both horizontally and vertically and functions as an aquifer.

1.3.3.5 Prairie du Chien and Jordan

The Prairie du Chien Group consists of the Shakopee and Oneota Formations. Data logging activities at the former Methodist Hospital Well (W48) indicate the Shakopee, a highly-eroded limestone, is approximately 70 feet thick and extends from 250 feet below ground surface to the top of the Oneota at a depth of approximately 320 feet (well W48 UN216067). The Oneota is approximately 50 feet thick, consisting of a thick uniform dolostone referred to as the Hager City Member. The Hager City Member is underlain by the Coon Valley Member, described as a heterolithic unit containing dolostone, feldspathic sandstone, poorly sorted quartzose sandstone, shale and minor, moderately well sorted, medium to coarse sandstone (Mossler, 2008). Temperature, specific conductance and spinner log data indicate the Shakopee/Oneota contact and the Coon Valley Member form relatively highly transmissive zones that act as horizontal conduits for groundwater flow. These results are similar to the data obtained from Meadowbrook Golf Course well (W119) and Edina municipal well #7. The direction of groundwater movement in the Site area is predominantly controlled by pumping of nearby municipal and industrial wells.

The Jordan is a fairly uniform coarse, moderately well cemented quartzose sandstone with a thickness ranging from 61-119 ft. Groundwater flow through the Jordan aquifer is dependent on the intergranular permeability (Table 4).

The Prairie du Chien and the Jordan are historically grouped as one aquifer because no regional confining bed separates them. However, it is important to note differences such as changes in transmissivity between the Prairie du Chien (7,000 ft²/d) and the Jordan (2,000 ft²/d) (Table 4). Recent work in the eastern metropolitan area by the MGS and others involves studying the role of a portion of the Oneota Formation as a leaky barrier to vertical groundwater flow between the Shakopee Formation (uppermost Prairie du Chien) and the underlying Jordan Formation, and this should be considered when data from the Prairie du Chien and Jordan are used.

These units are overlain by Drift, two bedrock confining beds (Glenwood and Pigs Eye member) and two bedrock aquifers (Platteville and St. Peter), except for the area shown on Figure 2 where the units are overlain by Drift, the St. Peter aquifer and the Pigs Eye member confining bed. Consequently, the migration of COIs via natural leakage into these units is unlikely. The USGS concluded (1984a) that the source of Site-related COIs in the Prairie du Chien and Jordan aquifers was historical migration via well W23 and possibly other former multi-aquifer wells that provided a hydraulic pathway from shallower aquifers. Other manmade conduits may remain in the area, and these likewise can provide a hydraulic pathway from the shallower aquifers.

Distribution of Site-related COIs in the Prairie du Chien and Jordan is complex, due to a long history of contamination, steep hydraulic gradients that result from large groundwater withdrawals,

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the transient nature of those withdrawals, and the hydrologic characteristics of the aquifer (Table 4). However, although PAHs have been in the aquifer for at least 80 years, and the present distribution is complex, the concentrations remain highest near the points of introduction through multi-aquifer wells near and on the Site and this is the area where Site-related COI concentrations exceed RAOs (Tables 1 and 2).

1.3.3.6 *Wonewoc*

The Wonewoc is a fine to coarse quartz arenite up to 325 feet in thickness (Ruhl et al., 1982). It is located beneath the Jordan and is separated from it by the St. Lawrence – Tunnel City confining unit. According to the USGS (1984a), it is highly unlikely that Site-related COIs have entered this aquifer in substantial amounts through natural paths (USGS, 1984a). As with the Prairie du Chien and Jordan aquifer, an apparent pathway for Site-related COIs to the Wonewoc Aquifer was leakage through former multi-aquifer wells (USGS, 1984a).

The City operated pumping well W105 in the Wonewoc aquifer from 1987 to 1991. EPA and MPCA approved shut-down of this well in a letter dated December 4, 1991. Well W105 is currently used as a monitoring well.

1.3.3.7 *Mount Simon / Hinckley*

The Mount Simon - Hinckley is a gray-white, silty to coarse, well cemented sandstone over 250 feet thick. It is characterized as having high permeability (Table 4). Due to its great depth and the protection afforded by overlying bedrock confining beds (Glenwood, basal St. Pigs Eye member of the St. Peter, St. Lawrence-Franconia, Eau Claire confining bed), it is highly unlikely that Site-related COIs have entered this aquifer in substantial amounts through natural paths (USGS, 1984a). Monitoring results to date indicate that this aquifer is impacted by Site-related COIs, but only at low concentrations, below health-based levels.

1.3.4 Environmental Fate of Chemicals of Interest

USGS (1984a) demonstrated that the low-molecular weight compounds in the organic liquid were preferentially dissolved and created an area of Site-related COIs dissolved in the Drift aquifer. Conversely, high-molecular weight compounds were less soluble and tended to be highly sorbed by organic carbon in the soil matrix. Degradation of phenols at the Site was described in detail by Ehrlich et al. (1982) and Godsy et al. (1983) and resulted in pronounced attenuation of phenols in the groundwater system.

Under proper aerobic conditions, benzene and naphthalene are degraded where oxygen is available and sufficient population of benzene and naphthalene degrading bacteria are present for aerobic bacterial metabolism (USGS, 1984b). Site PAH data collected from 1988 to 2016 indicate a general pattern of acenaphthene, and to a lesser extent 2,3-dihydroindene, anthracene, pyrene and fluoranthene occurring most frequently and at higher concentrations than other PAH (though still below health-risk criteria listed in Tables 1 and 2) at down gradient well locations. Other PAHs

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are relatively immobile (EPA, 1996), degraded close to the Site (Haritash and Kaushik, 2009), or are otherwise naturally attenuated (Rogers et al., 2002) such that down gradient concentrations are low or below detection. Overall, two PAHs (naphthalene and BaP) and a carcinogenic polycyclic aromatic hydrocarbon (cPAH) risk-based group (BaP-equivalents) exceed the values in Table 1 in groundwater beneath the Site and near the former bog area southeast of the Site, but not in areas further from the Site.

1.3.5 Potential Receptors and Exposure Pathways

1.3.5.1 Soil and Soil Vapor

In September 2012, EPA completed a study that included comparing a database of soil and soil vapor data for the Site to risk-based screening criteria (EPA, 2016). Section 6 describes controls to prevent future potential exposures.

1.3.5.1.1 Soil

Hazardous substances, including coal tar and creosote wastes containing PAHs and other organic contaminants, are present in subsurface soil at the Site. Potential receptors for the soil pathway include residents on and near the Site, construction and maintenance workers, and recreational users of Louisiana Oaks Park. Ingestion of contaminated soil, particularly by children, inhalation of contaminated dusts and direct dermal contact with contaminated soils could lead to adverse health effects (MDH, 2017). Soil cover installed at the Site to address these pathways was depicted in the Draft Reilly Site Soil Cover Report (Summit Envirosolutions, 2015) and is further discussed in Section 6.

The former Reilly property now consists of vegetated soil areas that make up Louisiana Oaks Park, including athletic fields, and areas of multi-family housing and commercial use. A mound of contaminated soil, covered by clean soil, is present in the southwest corner of the area.

Areas of subsurface contaminated soil and other waste materials extend south of the former Reilly property into the former bog area. Large volumes of contaminated soil and other waste materials have been removed from this area during construction projects; however, some subsurface contaminated soil and waste materials remain. In 2012, EPA completed a report entitled *Identification of Potentially Affected Properties for Development of Institutional Controls*. The study identified properties for which Institutional Controls are needed and identified areas of data gaps. In several off-site areas, the exact boundary of site-related contaminated subsurface soil and the depth of the clean cover soil are undocumented.

It is likely that PAHs will remain in subsurface soil at the Site for a long period. Between 1994 and 2000, the University of Minnesota and EPA conducted studies of in-situ biodegradation processes in soil at the site and found that the natural processes were very slow (University of Minnesota, 1994). EPA conducted a study testing bioventing treatment and concluded that for the

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PAHs presenting the highest risk, overall reduction in PAH mass from treatment was small (Science Applications International Corporation, 2000; EPA, 2000).

The soil cover was implemented to address potential receptors and exposure pathways for surface soil, as discussed in Section 6.1. Site maintenance and redevelopment activities require health and safety protection plans for workers and the public that may be exposed to subsurface soils containing COIs.

1.3.5.1.2 Soil Vapor

EPA has assessed the potential for unacceptable health risks associated with hazardous substances, including PAHs and VOCs in soil vapor at the Site. From 2011 through 2013, an EPA contractor conducted four rounds of field sampling to assess the soil vapor pathway at the site, including sub slab, indoor air and outdoor air sampling for PAHs and VOCs. Following a survey of the site, the study concentrated on buildings most likely to present an unacceptable risk, including two apartment building complexes, three single-family homes, and an on-site garage.

As a result of the study, EPA concluded that there is not an unacceptable risk from the vapor intrusion pathway at the site, and that it is reasonable to believe that contaminant vapor concentrations will either remain constant or decrease over time. However, institutional controls are needed in certain areas to ensure that risk continues to be within acceptable levels by implementation of the EPA-approved ICIAP, discussed further in Section 7 of this Amended RAP.

1.3.5.2 Municipal Drinking Water Wells (Deeper Aquifers)

Municipal drinking water for the City of St. Louis Park and surrounding cities is obtained from the Prairie du Chien and Jordan aquifers and the deeper Mt. Simon / Hinckley aquifer. Wells in the Site area are listed in Table 5. COIs are present in these aquifers and could present health risk if present at concentrations above health-based criteria (Tables 1 and 2) and untreated prior to use.

1.3.5.3 Industrial, Irrigation Wells (Deeper Aquifers)

Water for industrial and irrigation use in the City of St. Louis Park and surrounding cities is obtained from the Prairie du Chien and Jordan aquifer. Wells in the Site area are listed in Table 5. Historical groundwater monitoring data indicate that COIs are present in these aquifers but are not detected at concentrations above values listed in Table 1. There is insufficient historical data regarding phenolics (Table 2) to compare to values.

1.3.5.4 Shallower Wells (Shallower Aquifers)

No known drinking water wells are currently present in the shallower aquifers near the Site. Historically there were private wells completed in the shallower aquifers. There are many wells existing in St. Louis Park left over from before City water was available. State law requires well disclosures during property transfers. However, if these wells were used for drinking water, they could present an unacceptable risk via ingestion, inhalation, or dermal routes of exposure. In 2016,

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MPCA, working with the City of St. Louis Park, surveyed residences for which there is no record of a connection to the municipal water supply. None were identified in the vicinity of the Site.

1.4. Remedial Action Objectives

The RODs for the Site describe remedy objectives that can be summarized as follows:

1. Maintain Drinking Water Quality;
2. Contain the Spread of Contaminated Groundwater; and
3. Prevent Exposure to COIs remaining at the Site.

For this Amended RAP, these overall objectives are described further below. These descriptions are generally consistent with the RODs, but incorporate updates to toxicology (as represented by current standards), risk pathways, and the CSM.

Maintaining drinking water quality entails the following:

1. Achieving applicable values at drinking water wells as listed in Tables 1 and 2;
2. Monitoring the concentration of COIs (Tables 1 - 3) at drinking water wells, and after treatment; and
3. Assessing the effectiveness of the remedy and identifying needed alterations and evaluating progress toward meeting objectives.

Containing the spread of contaminated groundwater includes:

1. Monitoring the concentration of COIs in Site-affected aquifers;
2. Determining where groundwater exceeds applicable values listed in Tables 1 and 2;
3. Achieving a stable or shrinking area where COIs in groundwater exceed values listed in Tables 1 and 2;
4. Preserving and protecting groundwater resources for future and present use; and
5. Assessing the effectiveness of the remedy and identifying needed alterations and evaluating progress toward meeting objectives.

Preventing exposure to COIs remaining on Site includes:

1. Allowing for safe, reasonable and beneficial reuse of the Reilly Site and adjacent areas; and
2. Preventing exposure to COIs at properties where subsurface contamination remains in place at levels that do not allow for unrestricted use/unlimited exposure.

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2. GENERAL PROVISIONS

This section describes general provisions applicable to the implementation of the Amended RAP.

2.1. Roles and Responsibilities

Four major stakeholders have roles and responsibilities for implementing this plan.

The City is responsible for:

- Operation and maintenance of the remedy in accordance with the approved O&M Plan and ICIAP;
- Preparation and implementation of supplemental plans;
- Proposing amendments and updates to supplemental plans, tables and figures;
- Annual reporting;
- Periodic remedy performance evaluation to support EPA's five-year reviews; and
- Communication to the public regarding plans and plan implementation.

The MPCA and its successor(s) is responsible for:

- Performing support-agency activities specified by the National Contingency Plan and the Superfund Memorandum of Agreement between EPA, MPCA and their successors;
- Discussion with other stakeholders regarding proposed amended plans, tables or figures, and review;
- Discussion with other stakeholders regarding the annual report, review, and approval;
- Discussion with other stakeholders regarding remedy performance evaluation to support EPA's five-year reviews; and
- Communication to the public regarding matters of concern to MPCA and its successor(s).

The MDH and its successor(s) is responsible for:

- Discussion with other stakeholders regarding proposed RAP amendments, review, and updates;
- Providing advice to EPA regarding matters of concern to MDH and its successor(s) that may be affected by a proposed remedy amendment; and
- Communication to the public regarding matters of concern to MDH and its successor(s).

The EPA and its successor(s) is responsible for:

- Performing lead-agency activities specified by the National Contingency Plan, including, for example, oversight of operation and maintenance, remedy modification and performance of periodic reviews;

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- Discussion with other stakeholders regarding proposed amended plans, tables or figures, review, and approval of amended plans, tables or figures;
- Annual report discussion with other stakeholders, review, and approval of annual report;
- Discussion with the City, MPCA, MDH and their successors during five-year reviews; and
- Communication to the public regarding plans and plan implementation.

2.2 Plans and Submittals

All plans and submittals pursuant to this Amended RAP are to be prepared and reviewed in accordance with the purposes and requirements of the CD and the National Contingency Plan (40 CFR Part 300).

2.3 Process for Plan Amendments

Any party to the CD may propose an amendment to tables or figures in the Amended RAP. With the concurrence of the City, and following consultation with MPCA, MDH and their successors, EPA may approve or disapprove:

- 1) Amendment of numerical values included in Table 1 and Table 2 of the Amended RAP when revised or new MCL, HRL, or HBV values for COIs are issued by EPA or MDH. The City, MPCA, MDH, EPA, and their successors will amend the numerical values included in Table 1 and Table 2 following promulgation of new values by EPA or MDH. However, such new values will be applicable at the time they are promulgated regardless of whether the numerical values in Table 1 and Table 2 have been amended;
- 2) Amendment of Tables 1, 2 or 3 to add or delete COIs in response to new information; and
- 3) Amendment of other tables or figures of the Amended RAP in response to new information.

EPA will approve or disapprove RAP amendments in accordance with the schedule in Section 9.

The Amended RAP includes supplemental plans that are an enforceable part of the CD. Any party to the CD may propose amendment or termination of a supplemental plan at any time. With the concurrence of the City, and following consultation with MPCA, MDH and their successors, EPA may approve or disapprove:

- 1) Amendment of target area addressed by a supplemental plan;
- 2) Amendment of pumping wells and rates required by a supplemental plan;
- 3) Amendment of data collection and reporting requirements included in a supplemental plan;
- 4) Amendment of treatment and discharge requirements for pumped water specified in a supplemental plan;

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- 5) Amendment of performance evaluation criteria included in a supplemental plan;
- 6) Amendment of cessation criteria included in a supplemental plan; and
- 7) Termination of a supplemental plan following a demonstration that cessation criteria are met.

EPA will approve or disapprove the amendment or termination in accordance with the schedule in Section 9.

A supplemental plan may also be amended in response to a remedy modification. Optimization studies at some sites with pump and treat remedies have led to modifications of remedies, for example where RAOs are found to be better achieved by a means other than pumping. EPA will modify a remedy consistent with the National Contingency Plan.

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3. SHALLOWER AQUIFERS

The remedial action for COIs in groundwater in the shallower aquifers is intended to address the RAO - Contain the Spread of Contaminated Groundwater in the Drift, Platteville and St. Peter aquifers.

A plan for containment of COIs in groundwater in the shallower aquifers have been developed and implemented consistent with the RODs for each of the three aquifers.

The plans demonstrate a means of achieving a stable or shrinking area of COIs in groundwater consistent with the RODs. This demonstration is based on monitoring of the concentration of COIs in the aquifers relative to a Target Area based on values in Tables 1 and 2.

Specific remedial actions for each of the shallower aquifers will be as follows.

3.1 Drift Aquifer

Currently, the City operates a groundwater pump and treat (P&T) system and conducts groundwater monitoring in the Drift Aquifer. The City operates and maintains the P&T system which includes two extraction wells (W420 and W439), the Groundwater Treatment Facility (GTF), and associated pumps, piping, valves and meters. Data used to make an annual evaluation of the effectiveness of the P&T system is obtained through an approved Sampling and Analysis Plan (SAP) as described in Section 5.

3.1.1 Drift Aquifer Plan

The City has developed a Drift Aquifer Plan that reflects ongoing groundwater P&T and incorporated it into this Amended RAP as supplement.

The Drift Aquifer Plan includes the following information:

1. Target area;
2. Pumping wells and rates;
3. Data collection and reporting;
4. Treatment and discharge of pumped water;
5. Performance evaluation criteria; and
6. Cessation demonstration criteria.

3.1.2 Drift Aquifer Plan Amendment

In accordance with Section 2.3 of the Amended RAP, any party to the CD may propose an amended plan to address the RAO in the Drift aquifer. The amended plan will specify the area targeted by the plan and describe the fate and transport of COIs under the amended plan.

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In the event the proposed amendment is not consistent with the existing remedy for the Site, the proposed amendment will include information needed to support a potential remedy modification. The information to support a proposed remedy modification will be submitted to EPA, MPCA and their successors, per the schedule in Section 9. If the proposed amendment does not include pumping, the amendment will include a schedule for a cessation pilot test, continued presence and maintenance of system components for a specified period and groundwater monitoring to evaluate the effect of pumping cessation.

The plan amendment will include specific procedures for performance monitoring, O&M, and contingencies.

3.2 Platteville Aquifer

Currently, City operates a groundwater P&T system and conducts groundwater monitoring in the Platteville Aquifer. The City operates and maintains the P&T system which includes one extraction well (W421), the GTF, and associated pumps, piping, valves and meters. Data used to make an annual evaluation of the effectiveness of the P&T system is obtained through an approved SAP as described in Section 5.

3.2.1 Platteville Aquifer Plan

The City has developed a Platteville Aquifer Plan that reflects ongoing groundwater P&T and incorporated it into this Amended RAP as a supplement.

The Platteville Aquifer Plan includes the following information:

1. Target area;
2. Pumping wells and rates;
3. Data collection and reporting;
4. Treatment and discharge of pumped water;
5. Performance evaluation criteria; and
6. Cessation demonstration criteria.

3.2.2 Platteville Aquifer Plan Amendment

In accordance with Section 2.3 of the Amended RAP, any party to the CD may propose an amended plan to address the RAO in the Platteville Aquifer. The plan will specify the area targeted by the plan and describe the fate and transport of COIs under the amended plan.

In the event the proposed amendment is not consistent with the existing remedy for the Site, the proposed amendment will include information needed to support a potential remedy modification. The information to support a proposed remedy modification will be submitted to EPA, MPCA and their successors, per the schedule in Section 9. If the proposed amendment does not include

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pumping, the amendment will include a schedule for a cessation pilot test, continued presence and maintenance of system components for a specified period and groundwater monitoring to evaluate the effect of pumping cessation.

The plan amendment will include specific procedures for performance monitoring, O&M, and contingencies.

3.3 St. Peter Aquifer

Currently, City operates a groundwater P&T system and conducts groundwater monitoring in the St. Peter Aquifer. The City operates and maintains the P&T system which includes one extraction well (W410), associated pumps, piping, valves and meters. Data used to make an annual evaluation of the effectiveness of the P&T system is obtained through an approved SAP.

3.3.1 St. Peter Aquifer Plan

The City has developed a St. Peter Aquifer Plan that reflects ongoing groundwater P&T and incorporated it into this Amended RAP as a supplement.

The St. Peter Aquifer Plan includes the following information:

1. Target Area;
2. Pumping wells and rates;
3. Data collection and reporting;
4. Treatment and discharge of pumped water;
5. Performance evaluation criteria; and
6. Cessation demonstration criteria.

3.3.2 St. Peter Aquifer Plan Amendment

In accordance with Section 2.3 of the Amended RAP, any party to the CD may develop an amended plan to address the RAO in the St. Peter Aquifer. The plan will specify the area targeted by the plan and describe the fate and transport of COIs under the amended plan.

In the event the proposed amendment is not consistent with the existing remedy for the Site, the proposed amendment will include information needed to support a potential remedy modification. The information to support a proposed remedy modification will be submitted to EPA, MPCA and their successors, per the schedule in Section 9. If the proposed amendment does not include pumping, the amendment will include a schedule for a cessation pilot test, continued presence and maintenance of system components for a specified period and groundwater monitoring to evaluate the effect of pumping cessation.

The plan amendment will include specific procedures for performance monitoring, O&M, and contingencies.

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3.4 Monitoring of Shallower Aquifer Wells

Currently, the City monitors wells in shallow aquifers as specified in an applicable SAP as described in Section 5. The City will monitor wells and report results to the Agencies on an annual basis. Monitoring will include routine analysis for COIs and water level measurement as described in the approved SAP.

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4. DEEPER AQUIFERS

This Section addresses aquifers known to be used currently for drinking water (Prairie du Chien, Jordan, and Mt. Simon/Hinckley Aquifers) near the Site and an aquifer (Wonewoc Aquifer) located between the Jordan and the Mt. Simon Aquifer (see Section 1) not currently used for drinking water near the Site. Site-related COIs have been detected in each of these aquifers.

4.1 Prairie du Chien and Jordan Aquifers

4.1.1 Prairie du Chien and Jordan Aquifers Plan

Currently, the City operates a source-area pumping well (W23) to remove COIs in groundwater near the source and multiple drinking water wells in the Prairie du Chien and Jordan aquifers. Currently, drinking water wells SLP10/15 and SLP 4 are utilized as part of the gradient control system. Pumped water from the source area well W23 is treated at the GTF. Treatment for drinking water wells is described in Section 4.3.

The City has developed a Prairie du Chien and Jordan Aquifers Plan to pump groundwater from specified existing wells in the aquifers to meet the RAO - Contain the Spread of Contaminated Groundwater in the aquifers. The Plan is incorporated into the Amended RAP as a supplement.

The Prairie du Chien and Jordan Aquifers Plan includes the following information:

1. Target area;
2. Pumping wells and rates;
3. Data collection and reporting;
4. Treatment and discharge of pumped water;
5. Performance evaluation criteria; and
6. Cessation demonstration criteria.

4.1.2 Prairie du Chien and Jordan Aquifer Plan Amendment

In accordance with Section 2.3 of the Amended RAP, any party to the CD may develop an amended plan to address the RAO in the Prairie du Chien and Jordan aquifers. The plan will specify the area targeted by the plan and describe the fate and transport of COIs under the amended plan.

In the event the proposed amendment is not consistent with the existing remedy for the Site, the proposed amendment will include information needed to support a potential remedy modification. The information to support a proposed remedy modification will be submitted to EPA, MPCA and their successors, per the schedule in Section 9. If the proposed amendment does not include pumping, the amendment will include a schedule for a cessation pilot test, continued presence and

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maintenance of system components for a specified period and groundwater monitoring to evaluate the effect of pumping cessation.

4.2 Wonewoc Aquifer

Currently, the City monitors groundwater in the Wonewoc Aquifer as described in Section 4.4. The City operated a pumping well (W105) to remove COIs in the Wonewoc Aquifer from 1987 to 1991, when shut-down and conversion to a monitoring well was approved by EPA. The Fifth Five-Year Review Report (EPA, 2016) indicated that groundwater in the Wonewoc Aquifer at W105, located on-Site, exceeded the HBV for BaP-equivalents (Table 1). If notified by EPA that further monitoring demonstrates that groundwater in this aquifer continues to exceed applicable groundwater values for Site-related COIs (Tables 1 and 2), the City will develop and implement a plan to contain the Site-related COIs in this aquifer. The City may propose an amended plan consistent with Section 2.3 of the Amended RAP.

4.3 Mount Simon Aquifer

Currently, the City monitors groundwater in the Mount Simon Aquifer as described in Section 4.4. The Fifth Five-Year Review Report (EPA, 2016) indicated that groundwater in the Mount Simon Aquifer on one occasion exceeded the HRL for BaP-equivalents. However, this was not confirmed upon re-sampling. If notified by EPA that monitoring demonstrates that groundwater in this aquifer exceeds applicable groundwater values for Site-related COIs (Tables 1 and 2), the City will develop and implement a plan to contain the Site-related COIs in this aquifer. The City may propose an amended plan consistent with Section 2.3 of the Amended RAP.

4.4 Monitoring of Deeper Aquifer Wells

Monitoring wells and drinking water wells not part of the Prairie du Chien and Jordan Aquifers Plan, in the deeper aquifers, including the Prairie du Chien, Jordan, Wonewoc and Mt. Simon-Hinckley aquifers, will be monitored as specified in an applicable SAP as described in Section 5. Monitoring results will be reported to the Agencies on the schedule described in Section 9.

4.5 Treatment of Drinking Water Wells

Currently the City operates and maintains a wellhead treatment system to treat COIs at affected drinking water wells. The effectiveness of the system to treat COIs is monitored through an approved SAP. Treatment will be by GAC or other method approved by the Agencies following O&M procedures described in the Prairie du Chien and Jordan Aquifers Plan. The O&M plan may be modified as needed, pending approval by the Agencies. Treatment plants as applicable will be monitored in accordance with a SAP as described in Section 5.

5. GROUNDWATER MONITORING / REPORTING

5.1 Sampling and Analysis Plan

The City has developed a SAP for the Site-related COIs in Table 1 and 2 for which analysis is commercially and locally available. An EPA-approved SAP is incorporated into this Amended RAP by reference and will remain in place until an amendment is approved by EPA or the SAP is terminated. Analytical parameters in the SAP will be limited to those with commercially and locally available analyses. The SAP will identify any COIs in Table 1 or 2 for which analysis is not commercially available. The City will request in writing, according to the schedule in Section 9 of this Amended RAP, that analytical laboratories listed in the approved QAPP add COIs in Table 1 or 2 that are not currently monitored to their analysis. The response from the laboratories will be reported to EPA.

A key objective of the groundwater monitoring program is to document the stability of contaminated groundwater. Therefore, the City will reevaluate the SAP based on findings of annual monitoring results and will notify EPA of any proposed revision. EPA, MPCA or their successors may also initiate a request for revision of the SAP. EPA, in consultation with MPCA and its successor(s), will review and approve or disapprove the revised SAP.

5.2. Quality Assurance Project Plan

An EPA-approved QAPP for the Site is incorporated into this Amended RAP by reference and will remain in place until an amendment is approved by EPA or the QAPP is terminated. The City may propose changes to the QAPP at any time and will reevaluate the QAPP based on findings of annual monitoring results and will notify EPA of any proposed revision. EPA, MPCA or their successors may also initiate a request for revision of the QAPP. EPA, in consultation with MPCA and its successor(s), will review and approve or disapprove the revised QAPP.

5.3. Water Level Data Collection, Management and Use

The City will collect, manage and use water level data to support the evaluation of the performance of the remedy.

Water level data will be collected from locations listed in the SAP. Well data for these locations is provided in Table 5. The City may propose amendment of Table 5 for EPA approval in consultation with MPCA and its successors. EPA, MPCA or their successors may also initiate a request for amendment of Table 5. The amended Table 5 is incorporated into the CD by reference.

These data will be compiled in an electronic database and reported to EPA, MPCA and their successors and in annual monitoring reports, including a copy of the database.

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5.4. Groundwater Pumping Data Collection, Management and Use

The City will collect, manage and use groundwater pumping data to support the evaluation of the performance of the remedy.

Groundwater pumping data will be collected from locations listed in the SAP. Well data for these locations is in Table 5. The City may propose amendment of Table 5 for EPA approval in consultation with MPCA and its successor(s). EPA, MPCA or their successors may also initiate a request for amendment of Table 5. The amended Table 5 will be incorporated into the CD by reference.

These data will be compiled in a database and reported to the EPA, MPCA and their successors in annual monitoring reports.

5.5. Annual Report

The City will prepare an annual monitoring report to document data collected during each calendar year and document maintenance of or progress toward achieving the RAO for the Site.

The schedule for reporting will be as described in Section 9.

The annual monitoring report will for each year: i) memorialize the data collected and ii) document any changes in the plan.

5.6. Contingent Monitoring of Drinking Water Wells

The SAP will be amended to include any new drinking water well installed within one mile of the Site in any aquifer. The SAP will be amended to include monitoring of any additional existing drinking water wells requested by EPA, in consultation with MPCA and its successors, where COIs are detected.

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6. SOIL

6.1. Soil Cover

The existing soil cover must be properly maintained at the Site to effectively restrict potential exposure to underlying contaminated materials left in place. Existing soil cover installed at the Site was depicted in the Draft Reilly Site Soil Cover Report (Summit Envirosolutions, 2015). The City will update the Soil Cover Report to incorporate surface soil sampling data from all available historical reports and will submit the revised Soil Cover Report to EPA for review and approval according to the schedule in Section 9 of the Amended RAP. The revised Soil Cover Report will include procedures for inspection and maintenance of the soil cover.

Long-term stewardship of the cover will be documented in the annual monitoring reports and construction reports.

If EPA, in consultation with MPCA, MDH and their successors, determines that the existing soil cover on areas of the Site or adjacent City-owned property could result in exposures outside of an EPA-accepted risk range, the City will propose a Soil Cover Remedial Plan for review and approval by EPA, in consultation with MPCA and its successor(s) according to the schedule specified in Section 9.

If EPA, in consultation with MPCA, MDH and their successors, determines that the existing soil cover on areas of the Site or adjacent Site-affected properties not owned by the City could result in exposures outside of an EPA-accepted risk range, EPA will work with property owners and other entities to take appropriate action to reduce risk.

6.2. Documentation

When the City conducts future work at the Site that includes excavation, it will confirm the depth of cover present prior to soil removal and document pre-construction and post-construction cover depths in construction report(s) submitted to EPA, MPCA and their successors. City inspection results and documentation of repairs and implementation of any contingency actions will be provided in the annual monitoring reports.

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7. INSTITUTIONAL CONTROLS

The goal of institutional controls at the Site is to control the potential for exposure to COIs listed in Tables 1, 2 and 3 in environmental media at the Site. Institutional controls may be used to restrict property use, maintain the integrity of the remedy, and assure long-term protectiveness for areas where conditions do not allow for unlimited use and unrestricted exposure.

An EPA-approved Institutional Control Implementation and Assurance Plan (ICIAP) for the Site will be incorporated into this Amended RAP by reference and remain in place until a modification is approved by EPA. Any party to the CD may propose changes to the ICIAP at any time. The City will reevaluate the ICIAP based on findings of annual monitoring results and will notify EPA of any proposed modifications. The proposed modification will be provided to EPA for review and approval, in consultation with MPCA and its successor(s). The approved modified ICIAP will be incorporated into the Amended RAP by reference.

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8. CONTINGENCIES

8.1. Leaky Multi-Aquifer Wells

Multi-aquifer wells known to transport COIs between aquifers have been sealed. However, the Fifth Five Year Review Report (EPA, 2016) identified the potential for additional leaky multi-aquifer wells in areas not previously investigated. The MPCA, MDH and their successors have identified some of these wells and are evaluating options to seal them. If other multi-aquifer wells that could transport COIs between aquifers are identified by the City, the information will be transmitted to the Agencies. MPCA, MDH and their successors, in consultation with EPA and the City, will communicate with well owners regarding any available State assistance with sealing or recompletion.

8.2 Data Management and Reporting

MPCA, MDH and their successors will provide information on leaky multi-aquifer wells, and any sealing activities to the City for inclusion in the current year's annual monitoring report. The City will maintain a listing of these wells.

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9. SCHEDULE

All deliverables and tasks required under the Amended RAP will be submitted or completed by the deadlines listed in the CD or set forth below. The City may submit a proposed amended schedule for EPA approval at any time. Upon EPA’s approval, the amended schedule will supersede the schedules set forth below.

<u>Description of Deliverable</u>	<u>Deadline</u>
Soil Cover Report	90 days after approval of the Amended CD
Soil Cover Remedial Plan, if required	90 days after notification from EPA that it is required
Wonewoc Aquifer Plan, if required	90 days after notification from EPA that it is required
Mount Simon Aquifer Plan, if required	90 days after notification from EPA that it is required
ICIAP	90 days after approval of the Amended CD
Plan Amendments	May be submitted at any time
Annual Monitoring Report / Progress Report	March 15, annually
City Request to Analytical Laboratories for List of COIs for the SAP	90 days after approval of the Amended CD and thereafter by March 15, annually
EPA Approval/Comment on City Submittals	60 days after submittal to EPA
City Response to EPA’s comments	60 days after EPA comments

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TABLES

**TABLE 1
CHEMICALS OF INTEREST, PAHS AND BENZENE, WITH MCL, HRL, OR HBV**

**Reilly Site
St. Louis Park, Minnesota**

Chemical	CAS Number	Drinking Water Standard (MCL)	Value	Source	MDH Relative Potency Factor (RPF)	Concentration at HBV if one PAH Detected
Polycyclic Aromatic Hydrocarbons						
Acenaphthene ¹	83 32 9		100	HBV	--	--
Anthracene	120 12 7		2,000	HRL	--	--
Biphenyl	92-52-4		300	HRL	--	--
Fluorene	86 73 7		300	HRL	--	--
Naphthalene	91 20 3		70	HRL	--	--
Pyrene ²	129 00 0		50	HBV	--	--
Polycyclic Aromatic Hydrocarbons with Values Based on B(a)P Equivalency Factor						
5-Methylchrysene	3697-24-3		0.06	HBV*	1	0.06
6-Nitrochrysene	7496-02-8		0.06	HBV*	10	0.006
Anthanthrene	191-26-4		0.06	HBV*	0.4	0.2
benzo[a]anthracene	56-55-3		0.06	HBV*	0.2	0.3
benzo[a]pyrene	50 32 8	0.2	0.06	HBV*	1	0.06
benzo[b]fluoranthene	205-99-2		0.06	HBV*	0.8	0.08
benzo[c]fluorene	205-12-9		0.06	HBV*	20	0.003
benzo[g,h,i]perylene	191-24-2		0.06	HBV*	0.009	7
benzo[j]fluoranthene	205-82-3		0.06	HBV*	0.3	0.2
benzo[k]fluoranthene	207-08-9		0.06	HBV*	0.03	2
Chrysene	218-01-9		0.06	HBV*	0.1	0.6
cyclopenta[c,d]pyrene	27208-37-3		0.06	HBV*	0.4	0.2
dibenz[a,h]anthracene	53-70-3		0.06	HBV*	10	0.006
dibenz[a,e]pyrene	192-65-4		0.06	HBV*	0.4	0.2
dibenz[a,h]pyrene	189-64-0		0.06	HBV*	0.9	0.07
dibenz[<i>a,i</i>]pyrene	189-55-9		0.06	HBV*	0.6	0.1
dibenz[<i>a,l</i>]pyrene	191-30-0		0.06	HBV*	30	0.002
Fluoranthene ³	206-44-0		0.06	HBV*	0.08	0.8
indeno[1,2,3-cd]pyrene	193-39-5		0.06	HBV*	0.07	0.9

**TABLE 1
CHEMICALS OF INTEREST, PAHS AND BENZENE, WITH MCL, HRL, OR HBV**

**Reilly Site
St. Louis Park, Minnesota**

Chemical	CAS Number	Drinking Water Standard (MCL)	Value	Source	MDH Relative Potency Factor (RPF)	Concentration at HBV if one PAH Detected
<i>Other Chemical of Interest</i>						
Benzene	71-43-2	5	2	HRL	--	--

Notes:

Units are in micrograms per liter (µg/L).

* For these, the sum of the products of concentration and RPF is the B[a]P equivalent, the standard (HBV) for which is 0.06 µg/L.

CAS Chemical Abstracts Service

HRL Minnesota Department of Health Health Risk Limit

HBV Minnesota Department of Health Health-Based Value

MCL EPA Maximum Contaminant Level

-- Not applicable

1 Acenaphthene has a HRL of 400 µg/L.

2 Pyrene has a HRL of 200 µg/L

3 Fluoranthene has an HBV of 70 µg/L

**TABLE 2
CHEMICALS OF INTEREST, PHENOLICS, WITH VALUES**

**Reilly Site
St. Louis Park, Minnesota**

Chemical	CAS Number	Drinking Water Standard (MCL)	Value	Source for Value
Total phenolics*	NA	NA	NA	NA
Bisphenol A (BPA)	80-05-7	NA	20	HRL
2-Chlorophenol	95-57-8	NA	30	HRL
2,4-Dichlorophenol	120-83-2	NA	20	HRL
2,4-Dimethylphenol	105-67-9	NA	100	HRL
2,4-Dinitrophenol	51-28-5	NA	10	HRL
2-Methylphenol (o-cresol)	95-48-7	NA	30	HRL
3-Methylphenol (m-cresol)	108-39-4	NA	30	HRL
4-Methylphenol (p-cresol)	106-44-5	NA	3	HRL
Nonylphenol	84852-15-3	NA	20	HBV
4-tert-Octylphenol	140-66-9	NA	100	HBV
Pentachlorophenol	87-86-5	1	0.3	HRL
Phenol	108-95-2	NA	4000	HRL
2,4,6-Trichlorophenol	88-06-2	NA	30	HRL

Notes:

- NA Not applicable or not available
- HRL Minnesota Department of Health Health Risk Limits
- HBV Minnesota Department of Health Health-Based Values
- CAS Chemical Abstracts Service

Units are in micrograms per liter

While there are values for Bisphenol A, Nonylphenol and 4-tert-Octylphenol, they are not considered to be creosote related.

* Total phenolics will be used as an indicator parameter for monitoring shallower aquifers. Where total phenolics result is greater than detection limit, individual phenolics listed in this table will be included in subsequent monitoring.

TABLE 3
CHEMICALS OF INTEREST, HAVING NO MCL, HRL OR HBV

Geosyntec Consultants

Reilly Site
St. Louis Park, Minnesota

Chemical	CAS Number
1-Methylnaphthalene	90-12-0
2,3-benzofuran	271-89-6
2-Methylnaphthalene *	91-57-6
2,3-dihydroindene	496-11-7
3-methylcholanthrene	56-49-5
7,12-dimethylbenz(a)anthracene	57-97-6
Acenaphthylene	208-96-8
Acridine	260-94-6
benzo[b]thiophene	95-15-8
benzo[c]phenanthrene	195-19-7
benzo[e]pyrene	192-97-2
Carbazole	86-74-8
dibenz[a,c]anthracene	215-58-7
dibenzofuran	132-64-9
dibenzothiophene	132 65 0
Indene	95-13-6
Indole	120-72-9
Perylene	198-55-0
Phenanthrene	85-01-08
Quinoline	91-22-5

Notes:

CAS - Chemical Abstracts Service

* MDH has 2013 Risk Assessment Advice for 2-Methylnaphthalene of 8 $\mu\text{g/L}$.

**TABLE 4
HYDROGEOLOGIC UNITS AND CHARACTERISTICS**

**Reilly Site
St. Louis Park, Minnesota**

Hydrogeologic Units		Lithology	Hydrogeologic Characteristics		
			Thickness	Horizontal Hydraulic Conductivity	Vertical Hydraulic Conductivity
Drift	Upper Drift	Peat, Sand, and Gravel	0-25 ft ⁽⁸⁾	69-400 ft/d ^(1,2,8)	~ 8.64 ft/d ⁽³⁾
	Middle Drift	Sand and Gravel	0-82 ft ⁽⁸⁾	50-500 ft/d ⁽⁸⁾	
	Lower Drift	Sand and Gravel	0-20 ft ⁽⁸⁾	100-500 ft/d ⁽⁶⁾	
Platteville		Dolomitic Limestone	0-35 ft ^(7,9)	187-275 ft/d * (1,2,3)	2.75 ft/d* ⁽⁸⁾
Glenwood		Shale and claystone	0 - 18 ft ⁽⁹⁾	N/A	10 ⁻⁵ -10 ⁻⁷ ft/d ^(8,5)
St. Peter		Sandstone	95-100 ft ^(1,2)	2-50 ft/d ⁽⁵⁾	2 ft/d ⁽⁶⁾
Basal St. Peter		Siltstone and claystone	5-65 ft ^(8,9)	N/A	2 × 10 ⁻⁵ ft/d ⁽⁹⁾
Prairie du Chien		Limestone	81-145 ft ⁽⁴⁾	36-56 ft/d ⁽⁹⁾	N/A
Jordan		Sandstone	61-119 ft ⁽⁴⁾	4.6-166 ft/d ⁽⁶⁾	1.0-4.6 ft/d ⁽⁶⁾
St. Lawrence - Franconia		Siltstone and sandstone	150-250 ft ⁽⁹⁾	10 ⁻³ - 20 ft/d ^{** (5)}	10 ⁻⁴ -10 ⁻³ ft/d ⁽⁵⁾
Wonewoc		Sandstone	0-50 ft ⁽³⁾	1-31 ft/d ⁽⁵⁾	N/A
Eau Claire		Shaly sandstone	<105 ft ⁽³⁾	10 ⁻² -10 ⁻³ ft/d ⁽⁵⁾	10 ⁻⁴ ft/d ⁽⁵⁾
Mount Simon-Hinckley		Sandstone	<200 ft ⁽⁶⁾	0.5-3.2 ft/d ⁽⁶⁾	0.4-5 ft/d ⁽⁶⁾

Notes:

*The Platteville hydraulic conductivity is variable with depth and highly dependent on the density of fractures, open joints, and solution cavities.

** St. Lawrence - Franconia horizontal conductivity is highly dependent on solution cavity density.

K_v = vertical hydraulic conductivity.

K_h = horizontal hydraulic conductivity

N/A = no information found

Confining units shaded are gray

References:

- Seaberg, J. K. and Hansen, D. D. Metropolitan Area Groundwater Model Project Summary, Northwest Province, Layers 1, 2 and 3 Model (<http://www.pca.state.mn.us/index.php/view-document.html?gid=6409>)
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- Hult, M. F. 1984. United States Department of the Interior Geological Survey. Assessment of Ground-Water Contamination by Coal-Tar Derivatives, St. Louis Park Area, Minnesota. Open-File Report 84-867.
- Hult M. and M. Schoenberg. 1984. Preliminary Evaluation of Ground-Water Contamination by Coal-Tar Derivatives, St. Louis Park Area Minnesota.
- Runkel A., Ripping, R., Alexander, Jr., E., and A. Jeffrey. 2003. Hydrogeology of the Paleozoic Bedrock in Southeastern Minnesota.
- Norvitch, T. G. Ross and A. Brietkrietz. 1973. Water Resources Outlook for the Minneapolis-St. Paul metropolitan Area, Minnesota. Published by Metropolitan Council of the Twin Cities Area.
- The City of St. Louis Park, Minnesota. (1992) Technical Memorandum Hydrogeologic Investigation of the Northern Area Drift-Platteville Aquifer St. Louis Park, Minnesota
- R. Lindgren. 1995. USGS: Hydrogeology and Ground-Water Flow of the Drift and Platteville Aquifer System, St. Louis Park, Minnesota. Water-Resource Investigations Report 94-4204.
- Stark, J. and M. Hult. 1985. Ground-Water Flow in the Prairie Du Chien-Jordan Aquifer Related to Contamination by Coal-Tar Derivative, St. Louis Park, Minnesota.

TABLE 5
WELL DATA

Reilly Site
St. Louis Park, Minnesota

Unique ID	Well Name	Aquifer	Well Type	Well Use	UTM Easting (meter) ¹	UTM Northing (meter) ¹	Elevation (feet, amsl)	Total Depth (feet)
434045	W420	Drift	Pumping Well	Pumping	470954	4976064	893	67
434044	W421	Platteville	Pumping Well	Pumping	470962	4976065	892	84
538134	W439	Drift	Pumping Well	Pumping	471023	4976403	920	94
434042	W410	St. Peter	Pumping Well	Pumping	471479	4975870	908	184
216050	W23	Prairie du Chien-Jordan	Pumping Well	Pumping	470741	4976417	895	450
206442	SLP10	Jordan	Pumping Well	Drinking	470983	4977510	925	500
215447	SLP15	Jordan	Pumping Well	Drinking	471024	4977586	925	503
200542	SLP4	Jordan	Pumping Well	Drinking	473205	4975130	900	490
216194	P109	Drift	Monitoring Well	Monitoring	471238	4975745	892	44
216166	P112	Drift	Monitoring Well	Monitoring	471575	4975612	902	51
462926	P307	Drift	Monitoring Well	Monitoring	471160	4976251	911	81
462927	P308	Drift	Monitoring Well	Monitoring	471347	4976386	921	80
462928	P309	Drift	Monitoring Well	Monitoring	471308	4976253	923	81
462929	P310	Drift	Monitoring Well	Monitoring	471499	4976174	919	70
462932	P312	Drift	Monitoring Well	Monitoring	471762	4976050	892	85
216031	W2	Drift	Monitoring Well	Monitoring	470426	4977198	897	36
216037	W9	Drift	Monitoring Well	Monitoring	470966	4976032	890	25
216038	W10	Drift	Monitoring Well	Monitoring	471020	4975600	891	29
216043	W15	Drift	Monitoring Well	Monitoring	470500	4976232	891	76
160031	W117	Drift	Monitoring Well	Monitoring	472032	4976147	914	72
165583	W128	Drift	Monitoring Well	Monitoring	471906	4975559	920	67
165591	W136	Drift	Monitoring Well	Monitoring	471680	4976661	916	53
763377	W415	Drift	Monitoring Well	Monitoring	472039	4975817	920	105
763376	W416	Drift	Monitoring Well	Monitoring	472037	4975819	920	63
763379	W417	Drift	Monitoring Well	Monitoring	471540	4975853	928	103
763380	W418	Drift	Monitoring Well	Monitoring	471539	4975850	928	70
434043	W422	Drift	Monitoring Well/ Former Pumping Well	Monitoring	471476	4975875	908	78
439813	W423	Drift	Monitoring Well	Monitoring	471200	4976754	916	45
439814	W425	Drift	Monitoring Well	Monitoring	471004	4976414	922	45
439811	W427	Drift	Monitoring Well	Monitoring	471665	4976343	919	45
216046	W18	Platteville	Monitoring Well	Monitoring	470971	4976036	891	78
216048	W20	Platteville	Monitoring Well	Monitoring	471239	4975745	893	90
200993	W22	Platteville	Monitoring Well	Monitoring	470591	4976536	895	91
216052	W27	Platteville	Monitoring Well	Monitoring	470876	4976358	903	112
149710	W100	Platteville	Monitoring Well	Monitoring	470407	4977169	910	88

**TABLE 5
WELL DATA**

**Reilly Site
St. Louis Park, Minnesota**

Unique ID	Well Name	Aquifer	Well Type	Well Use	UTM Easting (meter) 1	UTM Northing (meter) 1	Elevation (feet, amsl)	Total Depth (feet)
149711	W101	Platteville	Monitoring Well	Monitoring	472031	4976144	914	106
165576	W120	Platteville	Monitoring Well	Monitoring	471760	4976050	920	109
165577	W121	Platteville	Monitoring Well	Monitoring	471909	4975559	920	115
165585	W130	Platteville	Monitoring Well	Monitoring	471352	4975446	887	88
165586	W131	Platteville	Monitoring Well	Monitoring	471680	4976660	919	107
216051	W143	Platteville	Monitoring Well	Monitoring	471448	4975832	907	90
439809	W424	Platteville	Monitoring Well	Monitoring	471204	4976754	933	110
439812	W426	Platteville	Monitoring Well	Monitoring	471007	4976412	923	116
439810	W428	Platteville	Monitoring Well	Monitoring	471660	4976343	919	109
462935	W431	Platteville	Monitoring Well	Monitoring	471857	4975874	923	114
462933	W433	Platteville	Monitoring Well	Monitoring	471677	4976006	926	112
463012	W434	Platteville	Monitoring Well/ Former Pumping Well	Monitoring	471754	4976047	920	114
498917	W437	Platteville	Monitoring Well	Monitoring	471158	4976253	912	104
498919	W438	Platteville	Monitoring Well	Monitoring	471498	4976175	921	107
114472	W14	St. Peter	Monitoring Well	Monitoring	470963	4976031	890	95
160018	W24	St. Peter	Monitoring Well	Monitoring	470935	4975747	889	90
753534	W33R	St. Peter	Monitoring Well	Monitoring	470987	4976084	895	183
165578	W122	St. Peter	Monitoring Well	Monitoring	472162	4975495	920	239
165588	W133	St. Peter	Monitoring Well	Monitoring	471931	4976127	917	122
165584	W129	St. Peter	Monitoring Well	Monitoring	471890	4975109	913	122
432037	W408	St. Peter	Monitoring Well	Monitoring	471007	4977207	922	140
432036	W409	St. Peter	Monitoring Well	Monitoring	471013	4976407	922	222
432035	W411	St. Peter	Monitoring Well	Monitoring	471425	4975511	896	110
432034	W412	St. Peter	Monitoring Well	Monitoring	472143	4975975	915	139
763378	W414	St. Peter	Monitoring Well	Monitoring	472033	4975812	921	226
208399	E2	Prairie du Chien-Jordan	Monitoring Well	Drinking	473117	4973206	880	391
240630	E3	Prairie du Chien-Jordan	Monitoring Well	Drinking	473876	4972714	878	496
200561	E4	Prairie du Chien-Jordan	Monitoring Well	Drinking	472789	4971858	892	500
206474	E7	Prairie du Chien-Jordan	Monitoring Well	Drinking	471873	4972658	954	547
203613	E13	Jordan	Monitoring Well	Drinking	468823	4974192	935	495
207674	E15	Prairie du Chien-Jordan	Monitoring Well	Drinking	470882	4973287	898	405
748656	E1W	Prairie du Chien-Jordan	Monitoring Well	Monitoring	470659	4972175	902	450
112228	H6	Prairie du Chien-Jordan	Monitoring Well	Drinking	467643	4975814	961	545
204054	MTKA6	Prairie du Chien-Jordan	Monitoring Well	Drinking	467254	4977553	917	488
203196	SLP5	Prairie du Chien-Jordan	Monitoring Well	Unused	469651	4976570	930	465

**TABLE 5
WELL DATA**

**Reilly Site
St. Louis Park, Minnesota**

Unique ID	Well Name	Aquifer	Well Type	Well Use	UTM Easting (meter) ¹	UTM Northing (meter) ¹	Elevation (feet, amsl)	Total Depth (feet)
206457	SLP6	Prairie du Chien-Jordan	Monitoring Well	Drinking	472079	4974463	915	480
203678	SLP8	Prairie du Chien-Jordan	Monitoring Well	Drinking	468217	4979509	940	407
227965	SLP14	Prairie du Chien-Jordan	Monitoring Well	Drinking	471911	4979115	900	485
203187	SLP16	Prairie du Chien-Jordan	Monitoring Well	Drinking	468717	4979009	920	500
206454	W29	Prairie du Chien-Jordan	Monitoring Well	Industrial	470640	4975766	897	335
802162	W119R	Prairie du Chien-Jordan	Monitoring Well	Monitoring	471226	4974595	893	465
453805	W401	Prairie du Chien-Jordan	Monitoring Well	Irrigation	469963	4973565	921	482
508116	W402	Prairie du Chien-Jordan	Monitoring Well	Monitoring	474275	4974558	875	390
439751	W403	Prairie du Chien-Jordan	Monitoring Well	Monitoring	473829	4975389	867	385
200534	W406	Prairie du Chien-Jordan	Monitoring Well	Irrigation	474696	4976750	920	585
273822	W440	Prairie du Chien-Jordan	Monitoring Well	Monitoring	469930	4974905	911	393
500664	W441	Prairie du Chien-Jordan	Monitoring Well	Monitoring	469301	4974311	959	370
200979	W105	Wonewoc	Monitoring Well/ Former Pumping Well	Monitoring	470720	4976326	892	950
216060	W38	Wonewoc	Monitoring Well	Monitoring	471999	4976156	922	691
206439	SLP11	Mount Simon Hinckley	Monitoring Well	Drinking	471026	4977571	925	1093
206456	SLP12	Mount Simon Hinckley	Monitoring Well	Drinking	472067	4974392	915	1095
206424	SLP13	Mount Simon Hinckley	Monitoring Well	Drinking	471909	4979131	902	1045

Notes:

Well data based on the 2015 Annual Monitoring Report (City of St. Louis Park, 2016) and/or Minnesota Well Index (<https://apps.health.state.mn.us/cwiinfo/welllist.xhtml>).

Well W440 to be sealed and not used for future monitoring.

Well SLP4 is currently unused.

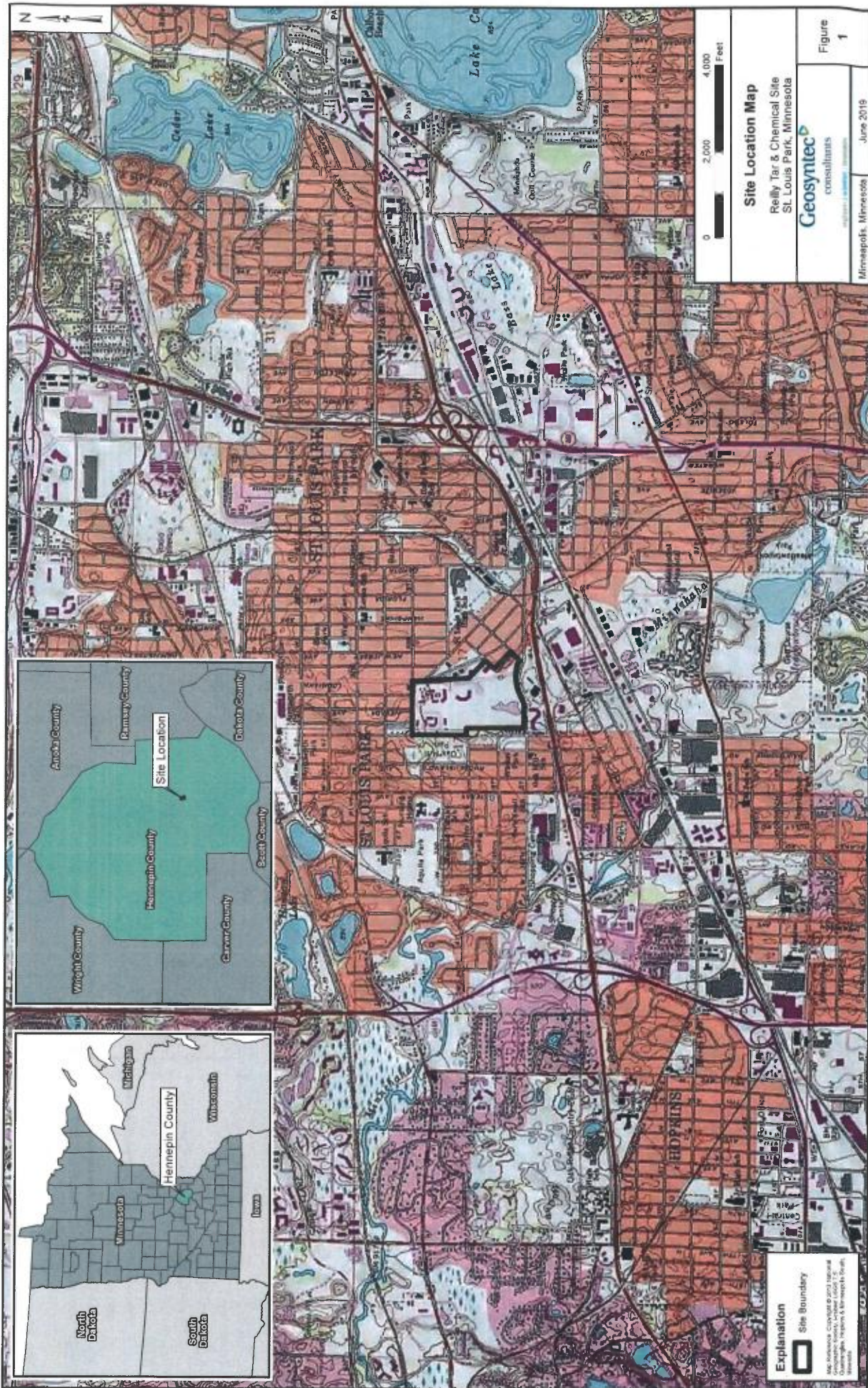
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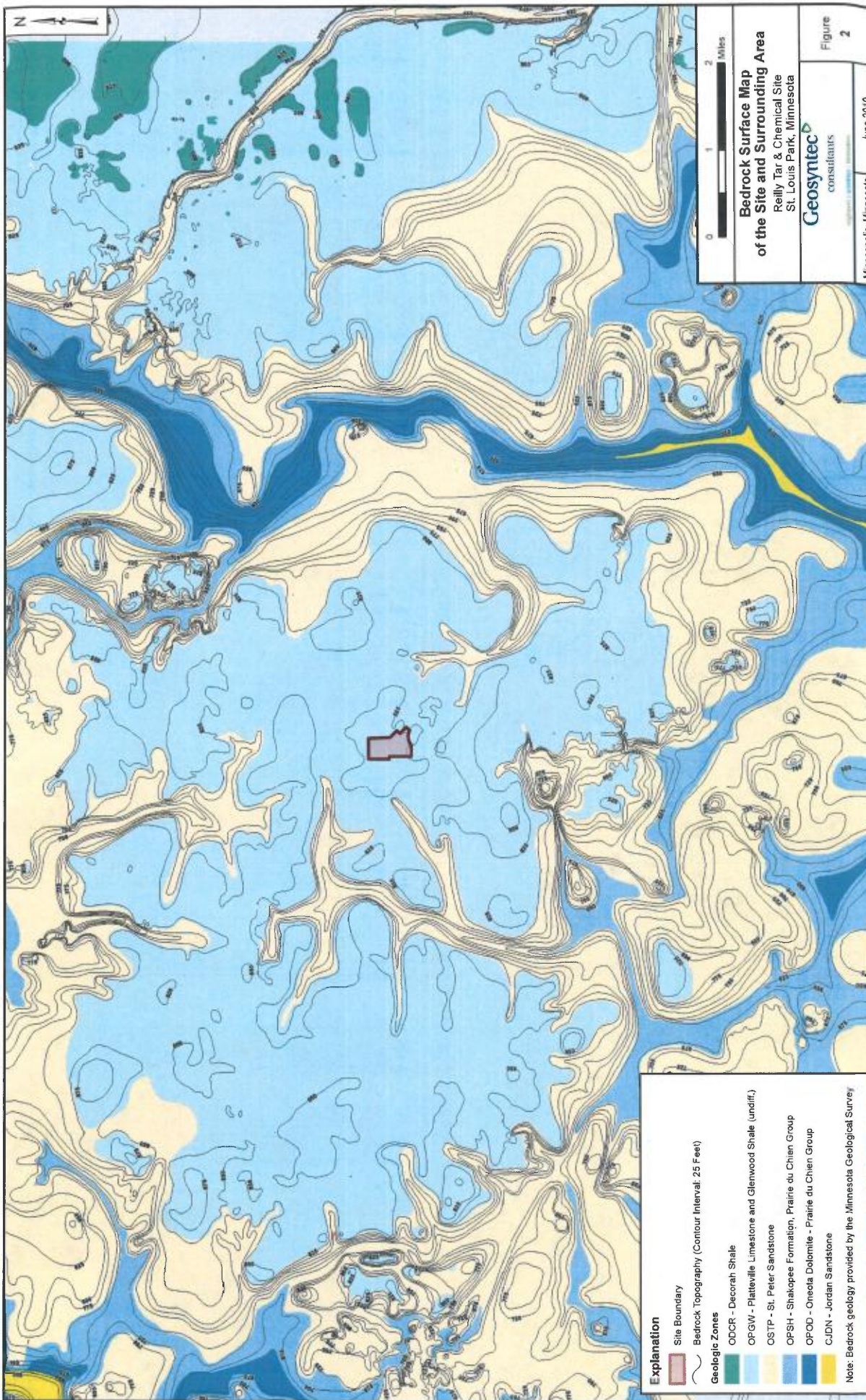
amsl - above mean sea level

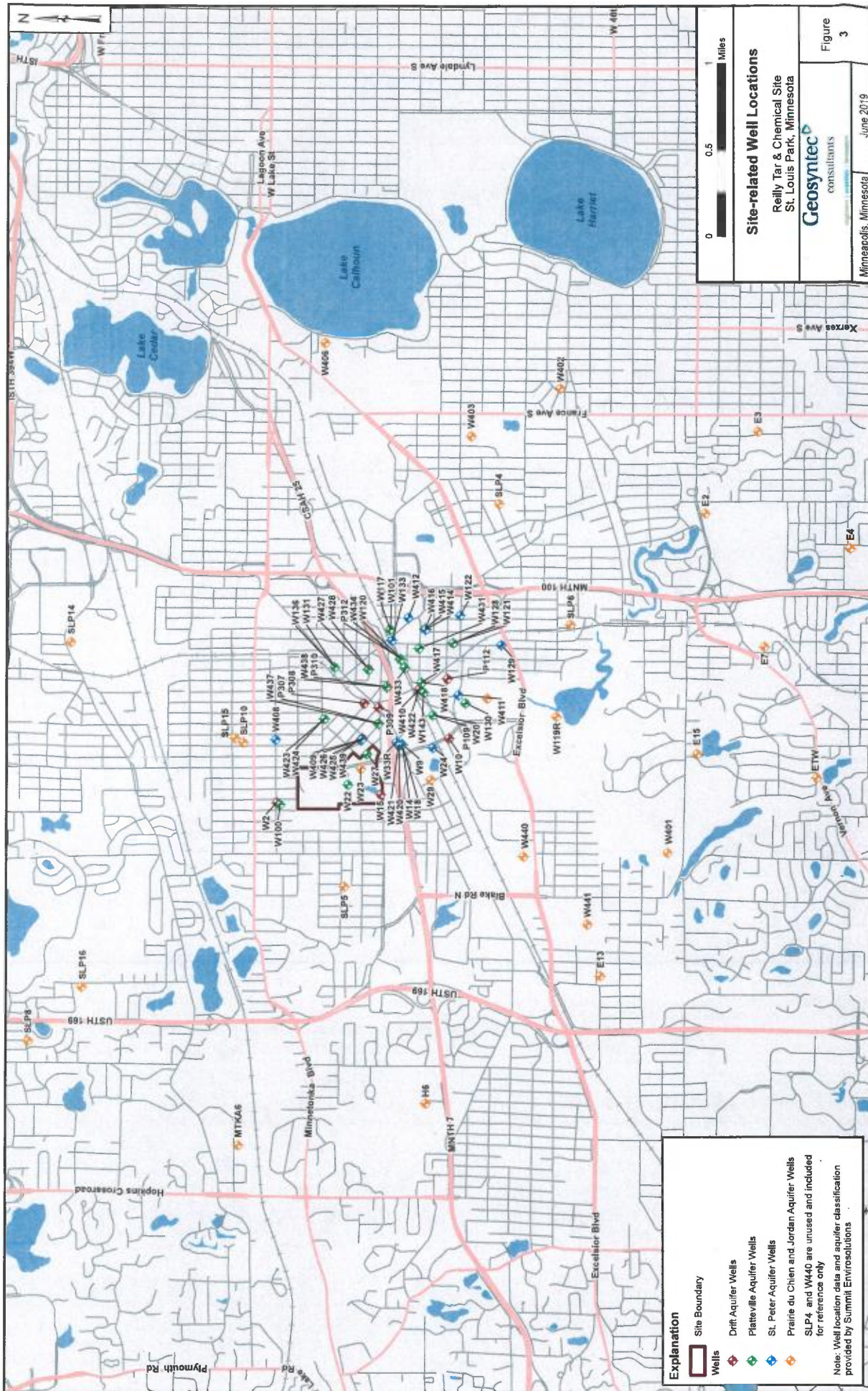
UTM - Universal Transverse Mercator System

1. Well coordinates based on UTM - North American Datum of 1983 (NAD83), Zone 15, meters.

FIGURES







APPENDICES

Appendix A
Historical Site Figures and Aerial Photos

Document P-B690-161
April 1983

**Recommended Plan for a
Comprehensive Solution of
the Polynuclear Aromatic
Hydrocarbon Contamination
Problem in the
St. Louis Park Area**

**Volume II
Appendices A-F**

ERI

ENVIRONMENTAL RESEARCH & TECHNOLOGY, INC.
ATLANTA · CHICAGO · CONCORD, MA · FORT COLLINS, CO
HOUSTON · LOS ANGELES · PITTSBURGH · WASHINGTON, DC

A3.1 Plant Layout

Figure A3-1 is a reduced scale map of the site based on a 1944 blueprint of the general plot plan. This figure also identifies buildings located on the site. The major buildings to note are the refinery, (5-9) the by-products building (13) which were torn down in the 1950's, and the wood treating cylinder building (25). These three buildings housed the major process units of the plant.

Oblique aerial photographs of the site, which were apparently taken in the 1930's and the 1950's (RT&CC files), are reproduced in Figures A3-2 and A3-3, respectively. The site map in Figure A3-1 is helpful in reviewing these aerial photos. Figure A3-2 shows the site in the 1930's. The road in the foreground is Walker Street, and the plant is laid out on 80 acres to the north. The large warehouse in the lower right corner of the photo was originally part of the sugar beet operations. Key features of this photo include the wastewater ditch in south west corner of the plant site (the dark line at the left central portion of the photo); most of the plant site is used for the storage of treated and untreated wood; the northern portion of the site appears to be graded, but as yet unused; the surrounding land is open fields to the north and east, swamp to the south, and wooded to the west.

Figure A3-3 shows the site about 20 years after the photo in Figure A3-2. Perhaps the most notable change that took place in those years is the development of the City of St. Louis Park as it grew up on all sides around the plant site. Also, more of the site is being used for wood storage, especially in the northern portion of the site.

9-303316

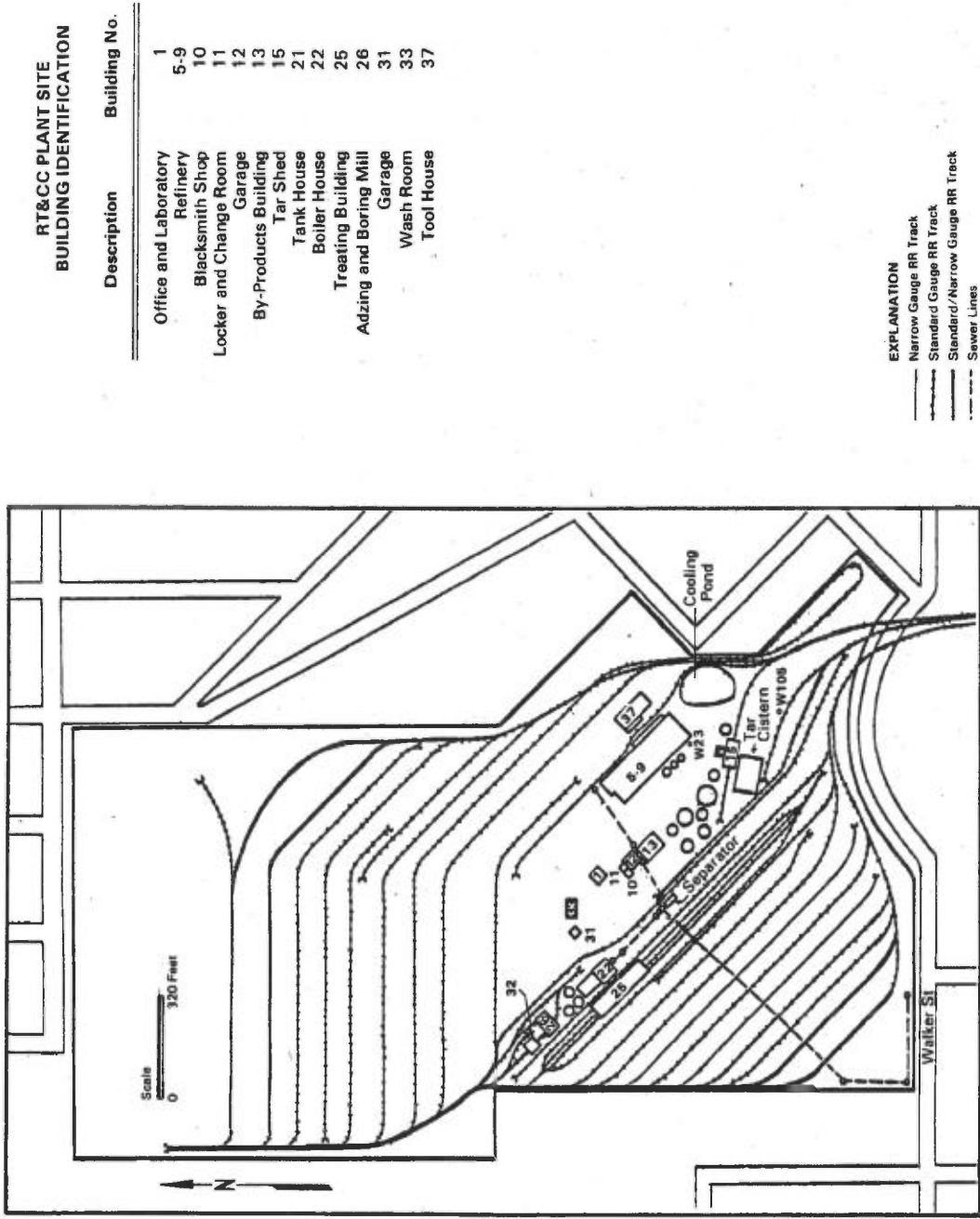
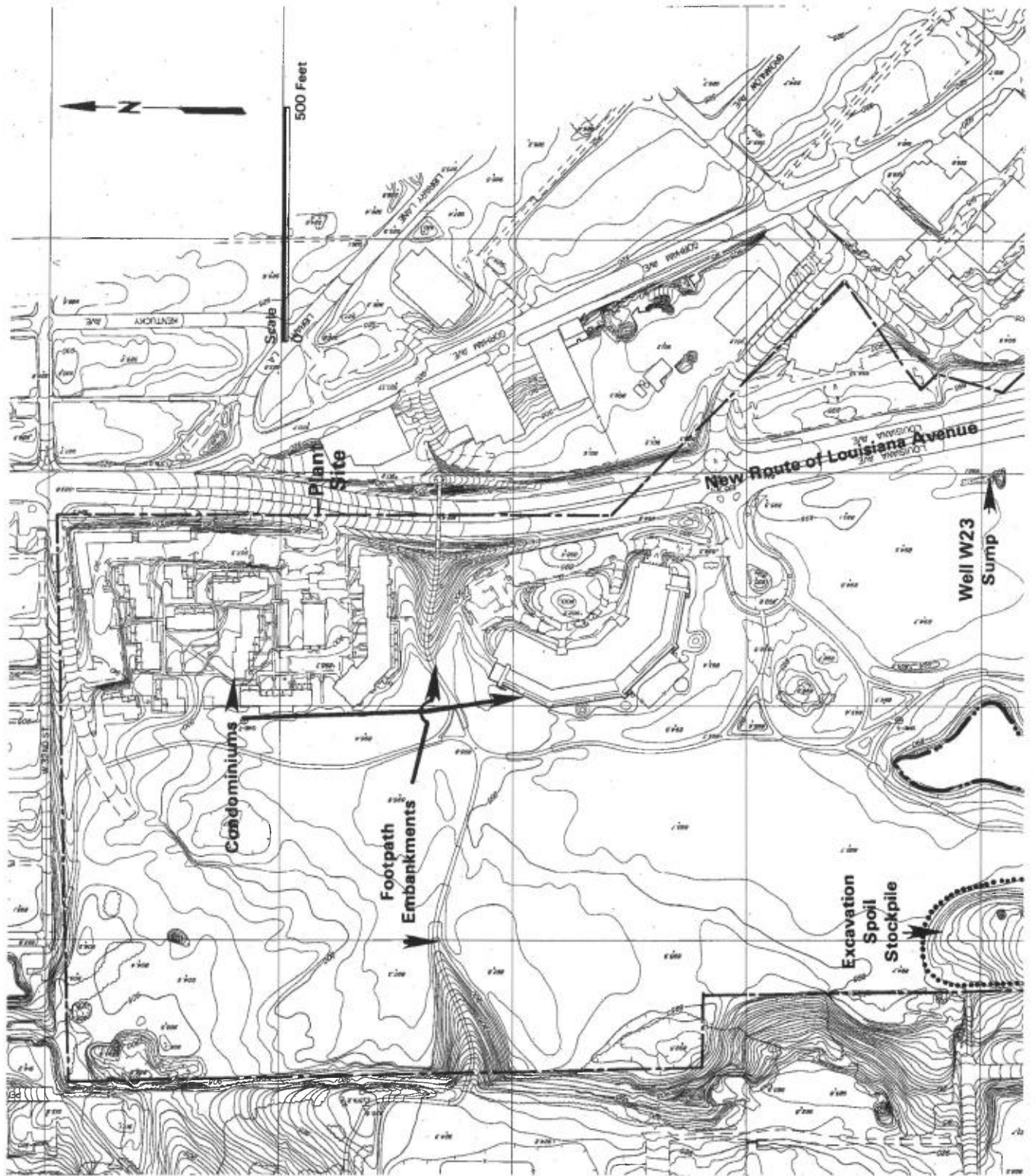
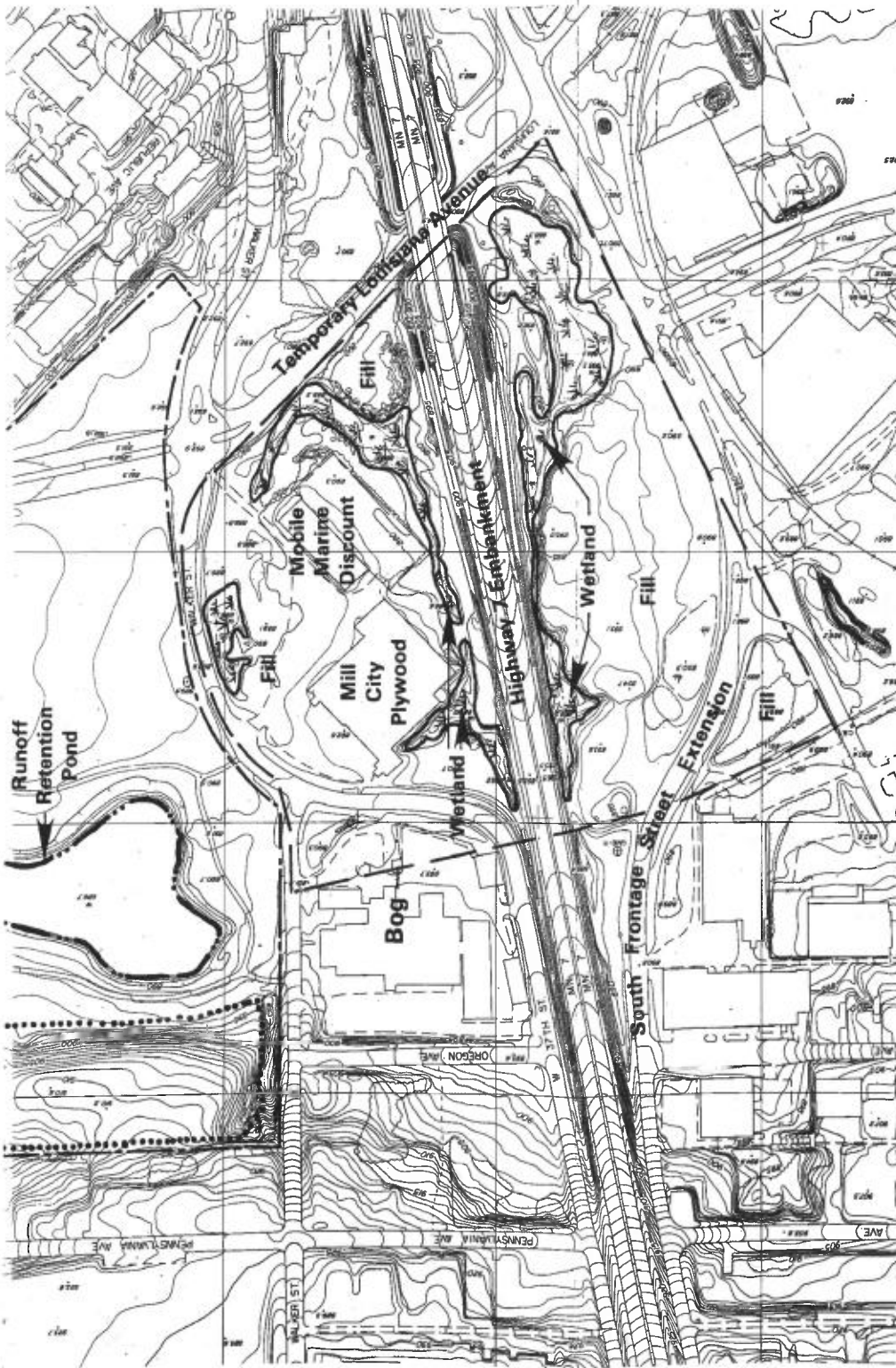


Figure A3-1 Plant Site Drawing From 1944 Blueprint





Note: Topographic Base From Aerial Photography, November 26, 1982

Figure B1-1 Map of Major Surface Features at the Site

HT177 8301064

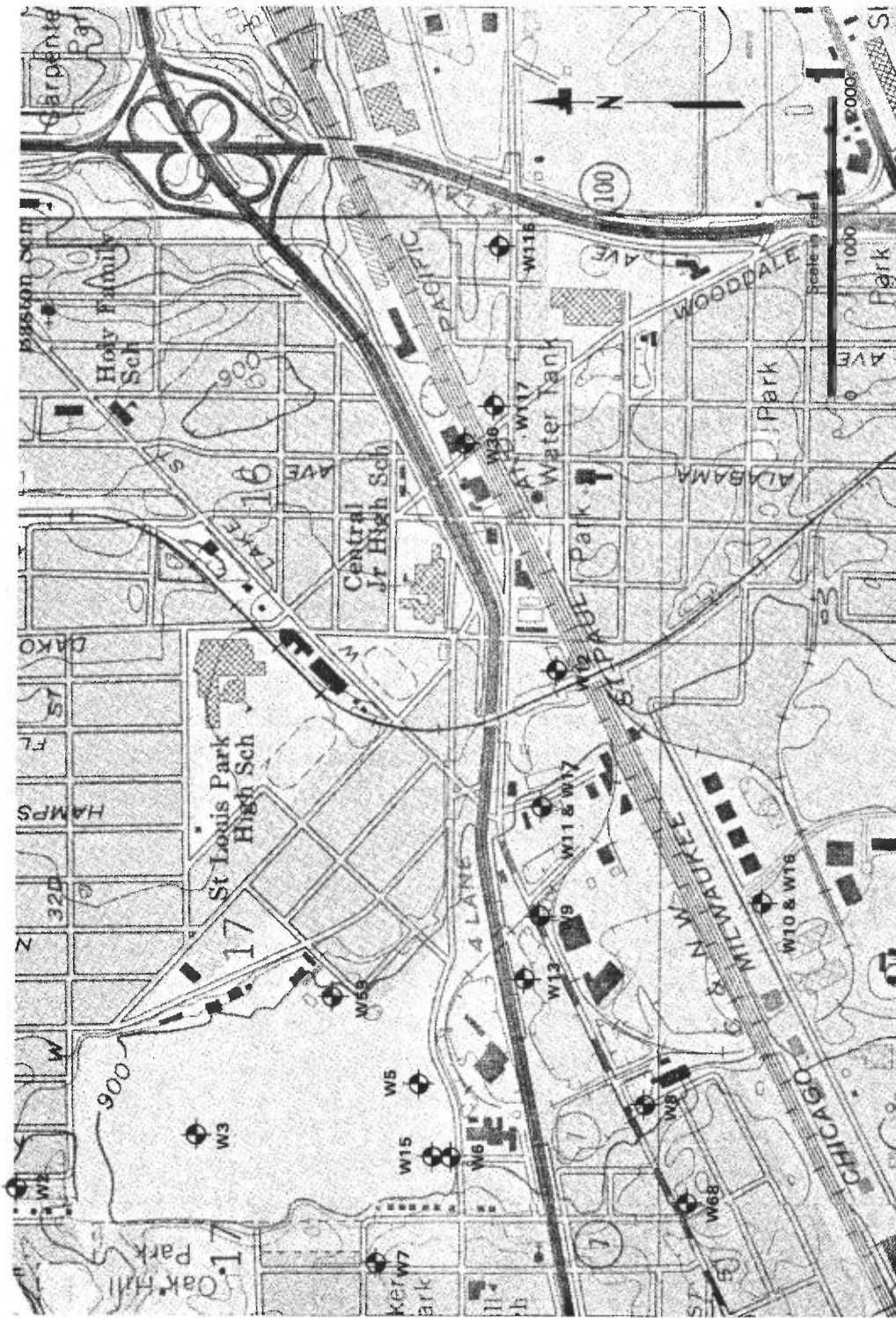


- Notes:
1. Well W38 is open to the Mt. Simon - Hinckley
 2. Well W107 is open to the Ironton - Galesville
 3. Well W41 was open to the Platteville and St. Peter prior to June, 1979

Base: USGS 7.5 min Topographic Series
Hopkins and Minneapolis South Minnesota

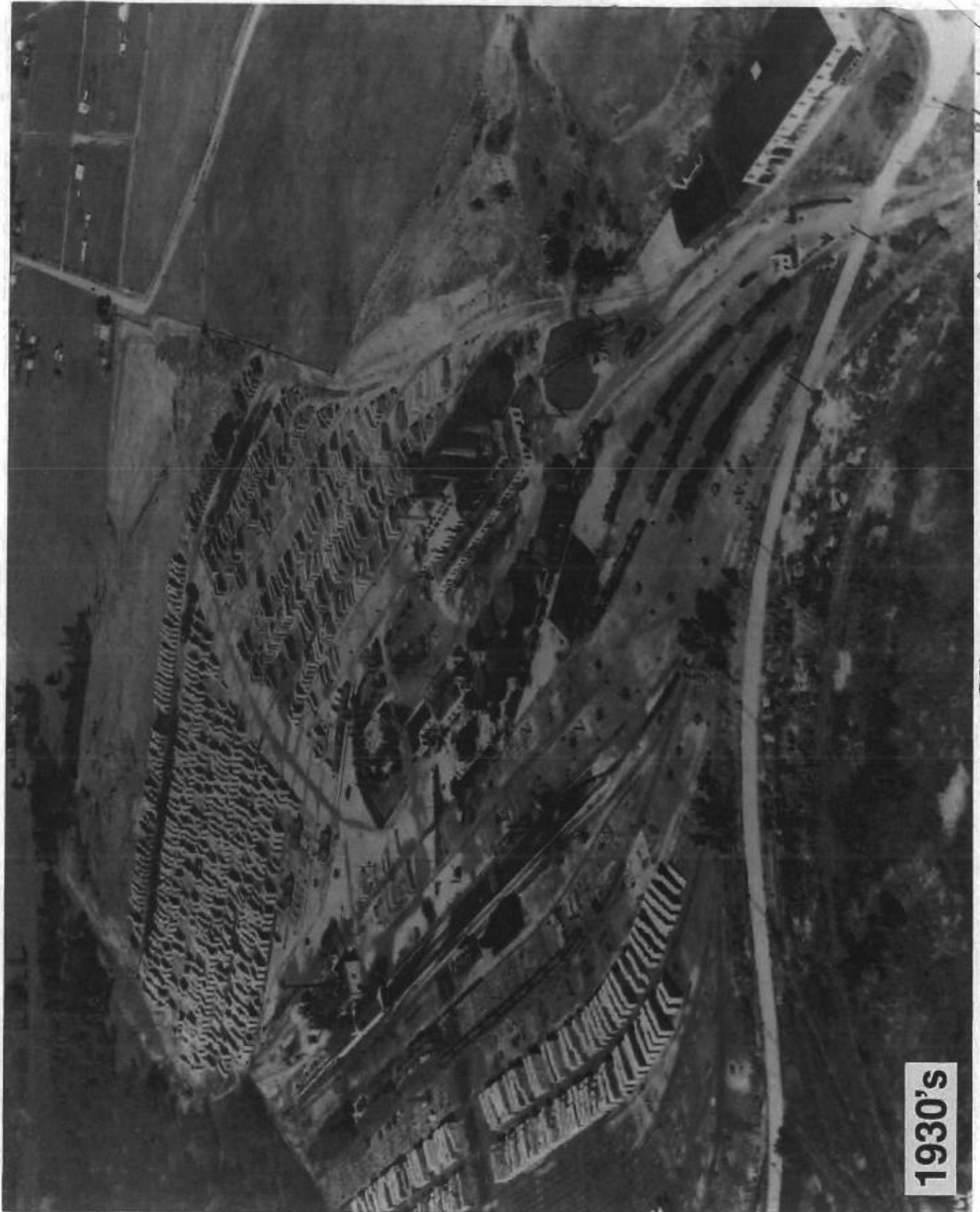
Figure B5-10 Map of Site-Area Wells Screened in the Platteville or St. Peter Bedrock Units for Which Phenolic Data Exists

HT117 8301062



Base: USGS 7.5 min Topographic Series
Hopkins and Minneapolis South Minnesota

Figure B5-9 Map of Site-Area Wells Screened in the Drift



1930's

20551

Figure A3-2

ATTACH #10 9/27/19

6610



1950's

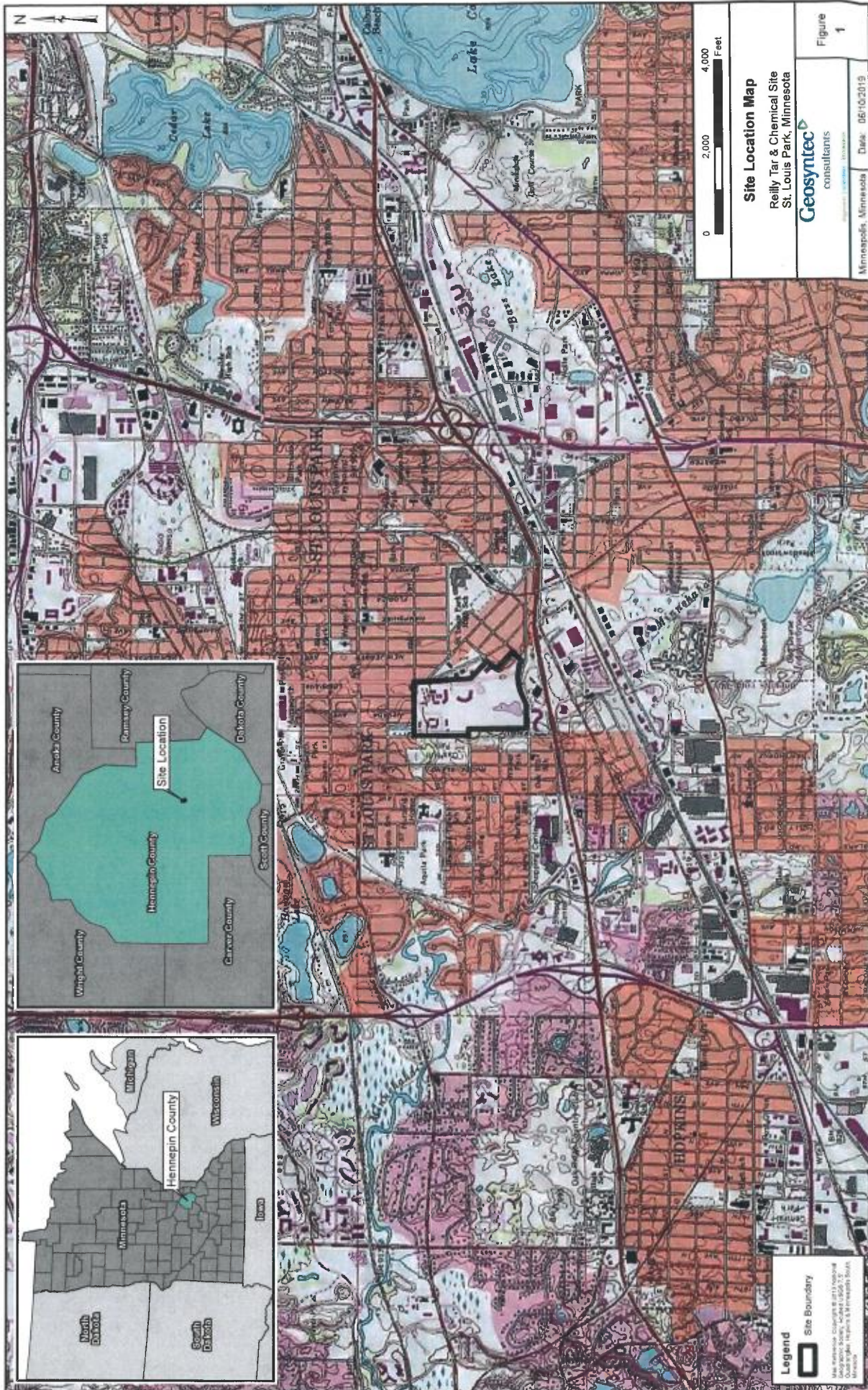
6/12/16 of HOA FILE

20550

Cent. Grant #610 Figure 13-3



APPENDIX B



APPENDIX C

**City of St. Louis Park
Financial Assurance**

[Insert date]

Director, Superfund Division
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. SR-6J
Chicago, IL 60604

Dear [insert name of current Director of the Region 5 Superfund Division]:

I am the chief financial officer for the City of St. Louis Park (the "City"). This letter is in support of the City's use of a financial test to demonstrate the financial assurance for the City's obligations under the Amended Consent Decree, approved by the United States District Court for the District of Minnesota (Civil No. 4-80-469) on [insert date of approval], relating to the Reilly Tar and Chemical Site (the "Amended Consent Decree"). This letter confirms the City's satisfaction of certain financial criteria, as set forth more fully below, consistent with Section VIII of the Amended Consent Decree.

1. The dollar amount of financial assurance required by Paragraph 24 of the Amended Consent Decree and covered by the City's use of the financial test is \$11,500,000.00.
2. The City is not a signatory or respondent to any CERCLA settlements or unilateral administrative orders (other than the Amended Consent Decree), under which the City is providing financial assurance to EPA through the use of a financial test.
3. The City is not the owner and/or operator of the any facilities for which the City has demonstrated financial assurance to EPA, states, and/or other regulators in the United States through the use of a test equivalent or substantially equivalent to the test certified herein.
4. The City has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee and has a current rating of [insert rating, must be at least Baa] as issued by Moody's and [insert rating, must be at least BBB] as issued by Standard and Poor's on all such general obligation bonds.
4. [Use this version of paragraph 4 only if the City does not have outstanding, general obligation bonds: Based upon the City's most recent audited financial statement, (1) the City's ratio of cash plus marketable securities to total expenditures is greater than or equal to 0.05 and (2) the City's ratio of annual debt service to total expenditures is less than or equal to 0.20.]

5. The City prepares its financial statements in conformity with Generally Accepted Accounting Principles for governments and its financial statements are audited by an independent certified public accountant.

6. The City is not currently in default on any outstanding general obligation bonds.

7. The City does not have any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's.

8. The City has not operated at a deficit equal to five percent or more of total annual revenue in each of the past two fiscal years.

9. The City has not received an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant auditing its financial statement.

10. The City has placed a reference to the Estimated Cost of the Work assured through this financial test into its comprehensive annual financial report (CAFR).

11. The City has placed the following in the operating record for the Reilly Tar and Chemical Site:

(a) A copy of this letter certifying the City's compliance with the financial test requirements under 40 C.F.R. § 258.74(f);

(b) The City's independently audited year-end financial statements for the latest fiscal year, including the unqualified opinion of the auditor who must be an independent, certified public accountant;

(c) A copy of the most recent comprehensive annual financial report (CAFR); and

(d) A report to the City from the City's independent certified public accountant (CPA) confirming the representations in paragraphs 4, 5, 8, and 9 [include reference to paragraph 4 only if using the financial ratios in the alternative].

12. The City acknowledges that it must update the information and place the updated information in the operating record for the Reilly Tar and Chemical Site within 180 days following the close of the City's fiscal year.

13. The City further acknowledges that it must satisfy the requirements of the financial test at the close of each fiscal year. If the City no longer meets the requirements of the local government financial test it must, within 210 days following the close of the City's fiscal year, obtain alternative financial assurance that meets the requirements of 40 C.F.R. § 258.74, place the required submissions for that assurance in the operating

record, and notify EPA and the Minnesota Pollution Control Agency no longer meets the criteria of the financial test and that alternate assurance has been obtained.

I hereby certify that, to the best of my knowledge after thorough investigation, the information contained in this letter is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

By [signature]: _____
Printed name: _____
Title: _____
Address: _____
Phone/Email: _____
Date: _____