BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of: The Goodyear Tire & Rubber Company 200 Innovation Way Akron, OH 44316 Respondent For the Site known as: Green I Landfill Hunters Woods Road Green Township, Hocking County, Ohio	Director's Final Findings and Orders For Remedial Design and Remedial Action And Cost Recovery Settlement

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: [illegible] Date: 11-9-15

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Director's Final Findings & Orders for RD/RA
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Attachment B - RD/RA SOW
Attachment C - List of Relevant Guidance Documents
Attachment D - Environmental Covenant Template

PREAMBLE

It is agreed to by the Parties hereto as follows:

I. JURISDICTION

1. These Director's Final Findings and Orders ("Orders") are issued to The Goodyear Tire & Rubber Company ("Goodyear") pursuant to the authority vested in the Director of Ohio EPA under Ohio Revised Code ("ORC") §§ 3734.13, 3734.20, 6111.03, and 3745.01.

II. PARTIES BOUND

2. These Orders shall apply to and be binding upon Goodyear ("Respondent") and their successors in interest liable under Ohio law.

3. No change in ownership or legal status of the Respondent including, but not limited to, any transfer of assets or real or personal property shall in any way alter Respondent's obligations under these Orders.

4. Respondent shall provide a copy of these Orders to all contractors, subcontractors, laboratories and consultants retained to conduct any portion of the Work performed pursuant to these Orders, within fourteen (14) days of the effective date of these Orders or upon date of retention. Respondent shall ensure that all contractors, subcontractors, laboratories and consultants retained to perform the Work pursuant to these Orders also comply with the applicable provisions of these Orders.

III. DEFINITIONS

5. Unless otherwise expressly provided herein, all terms used in these Orders or in any appendices shall have the same meaning as defined in ORC Chapters 3734 and 6111, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the rules promulgated thereunder. Whenever the terms listed below are used in these Orders or in any appendices, attached hereto and incorporated herein, the following definitions shall apply:

a. "CERCLA" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq.

b. "Contaminant" and "Contamination" means (1) any "hazardous waste" under ORC § 3734.01(J); (2) any "industrial waste" under ORC § 6111.01(C); and/or (3) any "other wastes" under ORC § 6111.01(D), including any release of one or more of the same.

c. "Day" means a calendar day unless expressly stated to be a business day. "Business day" shall mean a day other than a Saturday, Sunday, or state holiday. In computing any period of time under these Orders, where the last day would fall on a Saturday, Sunday, or state holiday, the period shall run until the close of the next business day.

d. "Decision Document" means the document, including amendments thereto, detailing the remedial action selected by Ohio EPA for the Site as set forth in the Amended Decision Document attached to these Orders as Attachment A.

e. "Environmental Covenant" means a servitude arising under an environmental response project that imposes activity and use limitations and that meets the requirements established in ORC § 5301.82.

f. "Feasibility Study" ("FS") means a study undertaken to develop and evaluate options for remedial action. The FS is generally performed concurrently and in an interactive fashion with the remedial investigation ("RI"). The term also refers to a report that describes the results of the study.

g. "NCP" means the National Oil and Hazardous Substances Pollution Contingency Plan, codified at 40 C.F.R. Part 300 (1990), as amended.

h. "Ohio EPA" means the Ohio Environmental Protection Agency and its designated representatives.

i. "Orders" means these Director's Final Findings and Orders and all attachments hereto.

j. "Paragraph" means a portion of these Orders identified by an Arabic numeral or an uppercase or lowercase letter.

k. "Parties" means Respondent and Ohio EPA.

l. "Respondent" means Goodyear.

m. "Remedial Action" ("RA") means those activities to be undertaken by Respondent to implement and maintain the effectiveness of the final plans and specifications submitted by Respondent pursuant to the Remedial Design and Remedial Action Work Plan.

n. "Remedial Design" ("RD") means those activities to be undertaken by Respondent to develop the final plans and specifications for the Remedial Action pursuant to the Remedial Design and Remedial Action Work Plan.

o. "Remedial Design and Remedial Action Work Plan" ("RD/RA Work Plan") means the document submitted by Respondent and approved by Ohio EPA pursuant to the Performance of Work Section of these Orders.

p. "Response Costs" means all costs incurred by Ohio EPA consistent with these Orders and/or the RD/RA Work Plan, including, but not limited to, payroll costs, contractor costs, travel costs, direct costs, overhead costs, legal and enforcement related costs, oversight costs, laboratory costs, and the costs of reviewing or developing plans, reports, and other items pursuant to these Orders, verifying the Work, or otherwise implementing or enforcing these Orders.

q. "Section" means a portion of these Orders identified by a Roman numeral.

r. "Site" means the approximately 10.6 acre Green I Landfill located on property owned by Respondent Goodyear (parcel numbers: 060005960200; 060009140000; 060009000000; 060005960201) where the treatment, storage, and/or disposal of hazardous waste, and/or the discharge of industrial waste or other wastes have occurred to waters of the State. Including any other area where such hazardous wastes, industrial wastes, and/or other wastes have migrated or threaten to migrate including, but not limited to, a small area of waste located on parcel number 060005960300.

s. "Statement of Work" ("SOW") means the "Generic Statement of Work for Conducting Remedial Designs and Remedial Actions," as set forth in Attachment B of these Orders. The SOW is not specific to any Site.

t. "Supporting Documents" means the field sampling plan ("FSP"), quality assurance project plan ("QAPP") and health and safety plan ("HASP") developed concurrently with the RD/RA Work Plan pursuant to these Orders and Section 4 of the SOW.

u. "Transferee" means any future owner of any interest in the Site, including but not limited to, owners of an interest in fee simple, mortgagors, easement holders, and lessees.

v. "Work" means all activities Respondent is required to perform under the Performance of the Work by Respondent and Additional Work Sections of these Orders.

IV. FINDINGS

6. The Director of Ohio EPA has determined the following findings:

a. The Green I Landfill Site is located off of Hunters Woods Road (Township Road 358), Section 36 of Green Township, Hocking County, Ohio.

b. The Ohio Department of Health issued an approval to operate the Green I Landfill to Richard Donahey (deceased) on July 1, 1970. Mr. Lee Notestine and Mr. Donahey operated the landfill until July 1974.

c. Mr. Donahey's property was sold at a Sheriff's sale in August 1989 to Mr. Leslie Johnson, who subsequently divided the property into lots and sold the majority of the property contained in the Site to Mr. Bill Hamby in 1991.

d. Mr. Hamby and other lot owners with portions of the landfill on their lots subsequently sold their property to Respondent Goodyear.

e. Ohio EPA files contain copies of notice of violation letters citing the former owner and operator(s) of the Site for operational violations related to the acceptance of drummed wastes that were not listed in the original operating permit, improper disposal of liquid wastes to a septic lagoon and the ground surface, and insufficient volume and thickness of cover material.

f. During its operation the Green I Landfill accepted municipal waste, furnace refractories, drummed materials, including: polyols, isocyanates; alcohols, oils, waxes, paints, hydrocarbon solvents, washer cleaner sludge, and paint booth sludge which are "industrial waste" and/or "other waste" as defined in ORC § 6111.01(C) and (D), and/or "hazardous wastes" as defined in ORC § 3734.01(J), and/or "hazardous substances" as defined in Section 101(14) of CERCLA/SARA.

g. On January 11, 1983, in a written response to a CERCLA § 104(e) inquiry, Goodyear indicated that it disposed of an estimated 4,605 drums of liquid waste and 94,268 cubic yards of miscellaneous solid waste at the Green I Landfill between July 1, 1970 and June 1974.

h. In November 1983, Ohio EPA conducted a preliminary assessment at the Site. Groundwater wells were installed and sampled. Laboratory analysis of groundwater samples collected from these monitoring wells indicated levels of Volatile Organic Compounds (VOCs) in excess of Maximum Contaminant Levels (MCLs).

i. On October 25, 1990, in a written response to a CERCLA § 104(e) inquiry, the General Electric Company indicated that it disposed of an estimated 3,488 tons of solid waste, some of which contained arsenic, and approximately 600 tons of

furnace refractories at the Green I Landfill from 1970 to 1974. Arsenic was specifically identified by General Electric as a hazardous constituent in their waste and has been identified in seeps and groundwater sampling at levels above MCLs.

j. U.S. EPA completed a removal action in November 1991, after drums near the surface of the ground were uncovered at a portion of the Site and a black sludge-oil material containing PCBs was found seeping from the ground.

k. In August 1994, Ohio EPA prepared a Site inspection report for U.S. EPA summarizing the groundwater sampling results. The results indicated the presence of phenol, benzoic acid, 4-methylphenol, benzene, arsenic, barium, beryllium, chromium, lead, nickel, and cyanide.

l. In April 2000, additional sampling conducted by Ohio EPA revealed VOC and heavy metal Contamination in several seeps on the Site.

m. On May 8, 2002, the Director of Ohio EPA issued an invitation to negotiate Director's Final Findings and Orders to the Respondent and the General Electric Company to complete a remedial investigation and feasibility study (RI/FS) at the Site. Respondent signed these Orders which became effective on September 20, 2002, upon entry into the Director's Journal.

n. Ohio EPA approved the RI Report in December 2005, and approved the FS Report in December 2007. The RI identified public health and environmental risks at the Site resulting from the disposal of industrial wastes. The RI characterized the nature and extent of the Contaminants released at the Site and the potential risks to human health, safety and the environment. The RI revealed that the principal contaminants of concern are aluminum, antimony, arsenic, beryllium, cadmium, cobalt, iron, lead, manganese, nickel, thallium, benzene, chloroform, 1,4-dichlorobenzene, ethylbenzene, polychlorinated byphenyls (PCBs), trichloroethene, and vinyl chloride. The threats at the Site include, but are not limited to, direct contact with the waste materials in the landfill; direct contact or ingestion of leachate emanating from the landfill; and ingestion of soil, as detailed in the RI.

o. The Respondent is, or has been, a generator of Contaminants or Contamination at the Site. The Respondent has directly, or indirectly, allowed Contamination, and/or directed the placement and/or disposal of Contaminants, at the Site.

p. On March 18, 2010, Ohio EPA notified the public of its Preferred Plan for remediation of the Site and solicited public comments. The Preferred Plan summarizes the information presented in the RI and FS, prepared by Respondent, and identifies and explains Ohio EPA's preferred alternative for the

remedial action at the Site. The preferred remedial alternative in this Preferred Plan includes the following elements:

i. Construction of a multi-layer landfill cap that will include an impermeable flexible membrane liner, a clay layer, a drainage layer, a protective layer and a vegetative cover;
ii. Collection and storage (or treatment) of leachate discharging from the nine seeps at the perimeter of the landfill to prevent direct contact and discharge to surface water;
iii. A one-time removal and treatment of contaminated surface water from the adjacent property pond;
iv. Excavation of pond sediments on an adjacent property (contaminated by activities at the Site), for disposal under the landfill cap, and reasonable restoration of this area;
v. Development of a long-term operation and maintenance plan that will include periodic sampling of ground water and inspection of the installed landfill cap; and
vi. Activity and use limitations memorialized in an Environmental Covenant.

q. On March 4, 2010, Ohio EPA held a public meeting and hearing on the Preferred Plan. The public comment period began February 9, 2010, and ended on April 19, 2010.

r. On November 22, 2010, Ohio EPA issued a Decision Document, which selected the remedy for the Site. The Decision Document was appealed to the Environmental Review Appeals Commission (ERAC) by Respondent on December 21, 2010; the General Electric Company was subsequently included in the appeal.

s. On September 12, 2011, Respondent submitted to Ohio EPA a request for an exemption pursuant to ORC 3734.02(G) from certain landfill capping requirements. Upon review of the request for an exemption, Ohio EPA found that Respondent made a technical demonstration that certain modifications to the capping requirements were technically equivalent and unlikely to adversely affect public health, safety or the environment. Accordingly, the Director of Ohio EPA approved Respondent's exemption request, and Director's Final Findings and Orders were issued July 2, 2012.

t. An Amended Preferred Plan was issued on December 31, 2013, detailing the Ohio EPA's revised plan for remediation of the Site. A public meeting was held on February 12, 2014 and public comments were received.

u. On January 7, 2015, a Joint Stipulation and Settlement Agreement was filed with the ERAC indicating that within thirty (30) days of Ohio EPA's issuance of the

agreed upon Amended Decision Document, Respondent and the General Electric Company would dismiss the ERAC appeal.

v. On March 19, 2015, Ohio EPA issued an Amended Decision Document detailing the selected remedial alternatives which included:

   i. Construction of a single layer landfill cap that will include an impermeable flexible membrane liner, a clay layer, a drainage layer, a protective layer and a vegetative cover;

   ii. Collection and storage (or treatment) of leachate discharging from the nine seeps at the perimeter of the landfill to prevent direct contact and discharge to surface water;

   iii. Development of a long-term operation and maintenance plan that will include periodic sampling of groundwater and inspection of the installed landfill cap;

   iv. Recording an environmental covenant to prohibit the use of groundwater for potable or agricultural purpose, and prohibits building or placing any permanently occupied structures on the landfill.

w. The Amended Decision Document is attached hereto as Attachment A, and incorporated by reference herein. Ohio EPA's responsiveness summary is attached to the Amended Decision Document.

x. On April 14, 2015, Respondent and the General Electric Company dismissed the ERAC appeal of the November 22, 2010 Decision Document.

y. The Site is a hazardous waste facility, solid waste facility or other location where hazardous waste was treated, stored or disposed.

z. The ground and surface waters at or adjacent to the Site are "waters of the state" as defined in ORC § 6111.01(H).

aa. Ohio EPA has incurred Response Costs and continues to incur Response Costs associated with this Site.

bb. The Respondent is a "person" as defined under ORC §§ 3734.01(G) and 6111.01(I).

cc. Conditions at the Site constitute a substantial threat to public health or safety or are causing or contributing or threatening to cause or contribute to air or water pollution or soil Contamination as provided in ORC § 3734.20(B).

dd. The migration and threatened migration of Contaminants to ground water, or surface water at, or from, the Site constitutes a discharge to "waters of the state," as the term is defined in ORC § 6111.01(H).

ee. The Work required pursuant to these Orders will contribute to the prohibition or abatement of the discharge of Contaminants to waters of the State.

ff. In issuing these Orders, the Director has given consideration to, and based his determination on, evidence relating to technical feasibility and economic reasonableness of complying with these Orders, and to evidence relating to conditions calculated to result from compliance with these Orders, and their relation to the benefits to the people of the state to be derived from such compliance.

gg. The actions to be taken pursuant to these Orders are reasonable and necessary to protect the public health or safety or the environment as provided in ORC § 3734.20.

V. GENERAL PROVISIONS

7. Objectives of the Parties

The objectives of the Parties in entering into these Orders are to protect public health and safety and the environment from the disposal, discharge, or release of Contaminants through design, construction, implementation, operation, and maintenance of the remedy by Respondent as set forth in the Amended Decision Document and in accordance with these Orders.

8. Commitment of Respondent

Respondent agrees to perform the Work in accordance with these Orders including but not limited to the SOW, all relevant guidance documents, and all standards, specifications, and schedules as approved by Ohio EPA pursuant to these Orders. Respondent also agrees to reimburse Ohio EPA for all Response Costs as provided in Section XVII where incurred in a manner not inconsistent with the NCP, 40 CFR Part 300, and perform all other obligations of these Orders.

9. Compliance With Law

a. All activities undertaken by Respondent pursuant to these Orders shall be performed in accordance with the requirements of all applicable federal, state and local laws and regulations, and in a manner not inconsistent with the NCP.

b. Ohio EPA expects that activities conducted pursuant to these Orders, if approved by Ohio EPA, would be considered necessary and consistent with the NCP.

c. Where any portion of the Work requires a permit, license or other authorization from Ohio EPA or any other state, federal or local government agency, Respondent shall submit applications in a timely manner and take all other actions necessary to obtain such permit, license or other authorization. These Orders are not, and shall not be construed to be a permit, license or other authorization issued pursuant to any statute or regulation.

VI. PERFORMANCE OF THE WORK BY RESPONDENT

10. Supervising Contractor

All Work performed pursuant to these Orders shall be under the direction and supervision of a contractor with expertise in hazardous waste site investigation and remediation. Prior to the initiation of the Work, Respondent shall notify Ohio EPA in writing of the name of the supervising contractor to be used in performing the Work under these Orders.

11. Remedial Design and Remedial Action

a. *RD/RA project initiation meeting*. Within fourteen (14) days of the effective date of these Orders, unless otherwise mutually agreed to by the Parties, Respondent shall meet with Ohio EPA to discuss the requirements of the RD/RA Work Plan.

b. *Submission of RD/RA Work Plan*. Within sixty (60) days after the effective date of these Orders, unless otherwise specified in writing by Ohio EPA, Respondent shall submit to Ohio EPA a RD/RA Work Plan and schedule for implementation of the Work required under this Section of these Orders. The RD/RA Work Plan shall provide for the design, construction, final operation and maintenance of the remedy as set forth in the Amended Decision Document.

c. *Criteria for RD/RA Work Plan development*. The RD/RA Work Plan, Supporting Documents, and any other deliverables required under the approved RD/RA Work Plan shall be developed in conformance with the RD/RA SOW contained in Attachment B of these Orders, and the guidance documents listed in Attachment C of these Orders. The RD/RA Work Plan shall include a proposed schedule that includes a completion date for each task. If Ohio EPA determines that any additional or revised guidance documents affect the Work to be performed in implementing the RD/RA, Ohio EPA will notify Respondent, and the RD/RA Work Plan and other affected documents shall be modified accordingly.

d. *Handling any inconsistencies.* Should Respondent identify any inconsistency between any of the laws and regulations and guidance documents that Respondent is required to follow by these Orders, Respondent shall notify Ohio EPA in writing of each inconsistency and the effect of the inconsistencies upon the Work to be performed. Respondent shall also recommend, along with a supportable rationale justifying each recommendation, the requirement that Respondent believes should be followed. Respondent shall implement the affected Work as directed in writing by Ohio EPA subject to the provisions of the Dispute Resolution Section of these Orders.

e. *Review of RD/RA Work Plan.* Ohio EPA will review the RD/RA Work Plan and Supporting Documents pursuant to the procedures set forth in the Review of Submissions Section of these Orders.

f. *Implementation of the RD/RA Work Plan.* Upon Ohio EPA's approval of the RD/RA Work Plan, Respondent shall implement the RD/RA Work Plan as approved. Respondent shall submit all plans, reports, or other deliverables required under the approved RD/RA Work Plan, in accordance with the approved schedule, for Ohio EPA's review and approval pursuant to the Review of Submissions Section of these Orders.

12. Operation and Maintenance Plan

The Operation and Maintenance ("O&M") Plan, including a schedule for implementation, shall be submitted in accordance with the approved RD/RA Work Plan. Ohio EPA will review the O&M Plan pursuant to the procedures set forth in the Review of Submissions Section of these Orders. Upon approval of the O&M Plan by Ohio EPA, Respondent shall implement the O&M Plan. Respondent shall submit all plans, reports, or other deliverables required under the approved O&M Plan, in accordance with the approved O&M schedule set forth therein, for Ohio EPA's review and approval pursuant to the Review of Submissions Section of these Orders.

VII. ASSURANCE OF ABILITY TO COMPLETE WORK

13. Cost Estimates

a. Within sixty (60) days after Respondent's receipt of Ohio EPA's approval of the Construction Completion Report required by the Statement of Work under Section VI (PERFORMANCE OF WORK) of these Orders, Respondent shall submit to Ohio EPA a final detailed written estimate of the cost of the work associated with the long-term "O&M" and monitoring of the selected remedy identified in the Amended Decision Document, in current dollars ("Initial Cost Estimate") (estimated in the Amended Decision Document to be $1,020,000), including any adjustments for inflation based upon the Gross Domestic Product Implicit Price Deflator

("GDP/IPD") and any adjustments for discount rates based upon the Federal Reserve Bank's 30-year Treasury Bill rate for the most recent month for which data is available.

b. Within thirty (30) days after notification of the initiation of the five-year review, Respondent must submit to Ohio EPA an estimated cost of the remaining O&M and monitoring Work to be performed ("Current Revised Cost Estimate") based upon the procedures described in the preceding paragraph. Information relied upon in support of the Current Revised Cost Estimate must be provided with any request for reduction. If an adjustment is made to any such Current Revised Cost Estimate for inflation and/or discount rates, an explanation shall be provided.

c. The Current Revised Cost Estimate shall reflect any adjustments caused by the Respondent's agreement to perform any additional O&M and monitoring Work requested by Ohio EPA pursuant to Section IX (ADDITIONAL WORK) or by any other conditions that have increased the cost of the O&M and monitoring Work to be performed under these Orders (*e.g.*, change in contractor).

d. Respondent shall submit the Initial Cost Estimate and all Current Revised Cost Estimates to Ohio EPA for review and approval, which approval shall not be unreasonably withheld. Ohio EPA will review each cost estimate and notify Respondent in writing of Ohio EPA's approval, disapproval, or combination thereof in accordance with Section XIV (REVIEW OF SUBMISSIONS).

14. <u>Performance Guarantee</u>

a. In order to secure the full and final completion of the O&M and monitoring Work in accordance with these Orders, within sixty (60) days following the effective date of these Orders or within sixty (60) days following Ohio EPA's approval of the Initial Cost Estimate, whichever date is later, Respondent shall establish financial security for the benefit of Ohio EPA in an amount at least equal to the Initial Cost Estimate. Thereafter, Respondent shall maintain financial security in an amount at least equal to the Current Revised Cost Estimate ("Financial Assurance"). Respondent may use one or more of the Financial Assurance mechanisms described in subparagraphs (i) through (vi) below.

Respondent shall submit draft Financial Assurance instruments and related documents to Ohio EPA, concurrently with Respondent's submission of the Initial Cost Estimate, for Ohio EPA's review and approval in accordance with Section XIV (REVIEW OF SUBMISSIONS).

i. A trust fund administered by a trustee which is an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency, that is acceptable to Ohio EPA. The trust agreement shall provide that the trustee shall make payments from the

fund, (1) as Respondent shall direct in writing to pay invoices submitted by Respondent from the fund for Work expenditures made by approved contractors engaged by Respondent; Respondent must only direct payment of invoices for which Respondent has submitted a notification to Ohio EPA's Site Coordinator, in accordance with Section XIV (REVIEW OF SUBMISSIONS) of these Orders or (2) in the event of a failure of performance as described in this Section, to pay any other person whom Ohio EPA determines has performed or will perform the Work required by these Orders at the direction of Ohio EPA.

ii. One or more irrevocable letter(s) of credit, payable at the direction of Ohio EPA, into a standby trust fund that meets the requirements of the trust fund described in subparagraph (i) above. The letter(s) of credit must be issued by one or more financial institution(s) (1) that has the authority to issue letters of credit and (2) whose letter-of-credit operations are regulated and examined by a federal or state agency. The letter(s) of credit must be irrevocable and issued for a period of at least one (1) year. The letter(s) of credit must provide that upon its expiration date, the letter(s) of credit will be automatically extended for a period of at least one (1) year unless, at least one hundred and twenty (120) days before the current expiration date, the issuing institution notifies the Respondent and Ohio EPA by certified mail of a decision not to extend the expiration date. Under the terms of the letter(s) of credit, the one hundred and twenty (120) days will begin on the date when the Respondent and Ohio EPA have received the notice, as evidenced by the return receipts.

iii. A policy of insurance that (1) provides Ohio EPA with rights as a beneficiary, which is acceptable to Ohio EPA and (2) is issued by an insurance carrier that has the authority to issue insurance policies in Ohio and whose insurance operations are regulated and examined by a federal or state agency. The insurance policy shall be issued for a face amount at least equal to the Initial Cost Estimate or Current Revised Cost Estimate, whichever is the most current estimate, except for those costs covered by another Financial Assurance instrument, as permitted in subparagraphs (i), (ii) and (iv) herein. The policy shall provide that the insurer shall make payments as the Respondent shall direct in writing to (1) reimburse Respondent for expenditures made by Respondent for Work performed in accordance with these Orders or (2) pay any other person whom Ohio EPA determines has performed or will perform the Work in accordance with these Orders, up to an amount equal to the face amount of the policy. The policy shall also provide that it may not be canceled, terminated or non-renewed and that it shall remain in full force and effect in the event that (1) Respondent is named as a debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy) of the U.S. Code or (2) Ohio EPA issues a Performance Failure Notice under this Section of these Orders.

iv. An escrow agreement administered by an escrow agent which is an entity that has the authority to act as an escrow agent and whose escrow banking operations are regulated and examined by a federal or state agency, that is acceptable to Ohio EPA. The escrow account shall be an interest-bearing account in an amount agreed upon by the Parties, and shall be dedicated solely for the payment of costs associated with the long-term O&M and monitoring work at the Site. The escrow agreement shall provide that the escrow agent make payments from the escrow account at a rate of one dollar ($1.00) per one dollar ($1.00) spent, (1) as Respondent shall direct in writing to pay invoices submitted by Respondent from the escrow account for Work expenditures made by approved contractors engaged by Respondent; Respondent must only direct payment of invoices for which Respondent has submitted a notification to Ohio EPA's Site Coordinator, in accordance with Section XIV (REVIEW OF SUBMISSIONS) of these Orders or (2) in the event of a failure of performance as described in this Section, to pay any other person whom Ohio EPA determines has performed or will perform the Work required by these Orders at the direction of Ohio EPA.

b. Within thirty (30) days of notification of Ohio EPA's approval, the executed Financial Assurance instrument(s) provided pursuant to this Section (including, without limitation, the original versions of letters of credit and other negotiable instruments issued for Ohio EPA's benefit) shall be submitted by Respondent to the Ohio EPA Site Coordinator in accordance with Section XIV (REVIEW OF SUBMISSIONS) of these Orders.

c. Whenever the Current Revised Cost Estimate exceeds the amount of Financial Assurance already provided pursuant to this Section by more than fifteen percent (15%), the Respondent shall, within sixty (60) days thereafter, obtain and present to Ohio EPA, for review and approval a revised form of Financial Assurance (and otherwise acceptable under this Section) that reflects such cost increase.

d. In the event that an institution involved in the management of funds provided to guarantee performance under this Section, or responsible for providing such performance guarantee, becomes unable to perform its obligations, or to provide the funds or financial resources for the Work as required by these Orders, Ohio EPA shall issue a written notification to Respondent of such incapacity. Thereafter, within sixty (60) days of receipt of such notification, Respondent shall either secure proper performance of the guarantee from the institution to satisfy Ohio EPA, or submit to Ohio EPA for approval an alternative form of Financial Assurance that meets the requirements of this Section. Respondent's inability to post Financial Assurance shall in no way excuse performance of any other requirements of these Orders, including, without limitation, the Respondent's obligation to complete the O&M and monitoring Work in accordance with the terms hereof.

15. Performance Failure

a. Financial Assurance instruments provided pursuant to this Section shall provide Ohio EPA with immediate access to resources, whether in cash or in-kind services, to continue and complete the O&M and monitoring Work in the event Ohio EPA determines that Respondent (i) has ceased implementation of any portion of the O&M and monitoring Work, (ii) is significantly or repeatedly deficient or late in their performance of the O&M and monitoring Work, or (iii) is implementing the O&M and monitoring Work in a manner that may cause a substantial threat to public health or safety or the environment. Upon making such determination, Ohio EPA may issue a written notice ("Performance Failure Notice") to the Respondent and the Financial Assurance provider of Respondent's failure to perform. The Performance Failure Notice will specify the grounds upon which such a notice was issued and will provide the Respondent with a period of fourteen (14) days within which to remedy the circumstances giving rise to the issuance of such notice. Upon the expiration of the 14-day notice period, Respondent may invoke the procedures set forth in Section XV (DISPUTE RESOLUTION), to dispute Ohio EPA's determination that any of the circumstances described in clauses (i), (ii), or (iii) of this paragraph has occurred.

b. Failure by the Respondent to remedy the relevant Performance Failure to Ohio EPA's satisfaction before the expiration of the 14-day notice period specified in this paragraph, shall trigger Ohio EPA's right to have immediate access to and benefit of the Financial Assurance provided pursuant to this Section, and Ohio EPA may, at any time after the expiration of the 14-day notice period, order Respondent to cease performance of the Work and direct the Financial Assurance provider to immediately (1) deposit into a newly created trust fund approved by Ohio EPA, the remaining funds obligated under the Financial Assurance instrument; or (2) arrange for performance of the O&M and monitoring Work in accordance with these Orders.

c. If Ohio EPA has issued a Performance Failure Notice but is nevertheless unable after reasonable efforts to secure the resources (whether in cash or in-kind services) necessary to continue and complete the O&M and monitoring Work from the Financial Assurance instrument(s) posted by Respondent pursuant to this Section, then, upon receiving written notice from Ohio EPA, Respondent shall (in the event Respondent does not prevail in Dispute Resolution, if any, as set forth in Section XV (DISPUTE RESOLUTION) of these Orders), secure the resources available under the Financial Assurance mechanism, or deposit into an account specified by Ohio EPA, in immediately available funds and without setoff, counterclaim, or condition of any kind, a cash amount equal to the Current Revised Cost Estimate.

d. If Respondent disputes an Ohio EPA determination under this paragraph that identifies a substantial threat to public health or safety or the environment that warrants immediate action, Ohio EPA may direct the Trustee of the trust account newly-created by Ohio EPA following the Performance Failure Notice to make any appropriate payments from such trust fund to address such threat. Otherwise, Ohio EPA may direct the Trustee to not make any payments from the newly-created trust fund, pending resolution of a dispute. If Respondent prevails in dispute resolution, all funds in the newly-created trust fund, including any interest that accrued on the funds, shall be returned to a Financial Assurance provider who has agreed to continue providing Financial Assurance to the Respondent.

16. Reduction of Amount of Financial Assurance

Concurrent with the submission of the Current Revised Cost Estimate, if the Respondent believes that the estimated cost to complete the remaining O&M and monitoring Work has decreased below the aggregate amount of the Financial Assurance mechanism or mechanisms selected by Respondent, the Respondent may, at the time of submittal of the Current Revised Cost Estimate, submit a written request to Ohio EPA to reduce the current amount of Financial Assurance to an amount no less than the Current Revised Cost Estimate. If Ohio EPA decides to accept such a proposal, Ohio EPA shall issue a notification to the Respondent of such decision in writing. After receiving Ohio EPA's written acceptance, which shall not be unreasonably withheld, Respondent may reduce the amount of the Financial Assurance in accordance with and to the extent permitted by such written acceptance.

17. Release of Financial Assurance

Respondent may petition Ohio EPA to allow the release or discontinuance of the Financial Assurance required hereunder. Respondent shall submit a written proposal for such release to Ohio EPA which shall specify the basis for the requested release (*e.g.*, full and final completion of the O&M and monitoring Work). If Ohio EPA decides to accept such a proposal, Ohio EPA shall notify the Respondent and the provider of the Financial Assurance of such decision in writing. The provider of the Financial Assurance may be released from its obligations under the instrument only upon a written release from Ohio EPA. Respondent's Financial Assurance obligations required within this Section will automatically terminate upon termination of these Orders pursuant to Section XXV herein. Ohio EPA will notify the provider of the release of its obligations within 45 days of termination of these Orders.

VIII. LAND USE AND CONVEYANCE OF TITLE

18. Environmental Covenant

Within thirty (30) days after Respondent's receipt of Ohio EPA's approval of the Construction Completion Report, Respondent shall record with the Hocking County Recorder's Office, pursuant to R.C. 5301.82, an Environmental Covenant for any property within the boundaries of the Site on which waste from the operation of the Green I Landfill remains or remedial elements of the approved RD are located. The Environmental Covenant shall be consistent with the template contained in Attachment D, shall be signed by Respondent, and shall be approved and signed by Ohio EPA. The terms and conditions of the Environmental Covenant are incorporated into these Orders and shall be binding upon Respondent. Thereafter, if Respondent conveys any interest in such property included in the Site that is subject to an Environmental Covenant filed pursuant to this Paragraph 18, each deed, title, or other instrument shall contain a notice stating that the property is subject to these Orders and shall reference any security, monitoring, treatment or containment systems, and/or activity and use limitations present on the property as a result of these Orders.

19. Proof of Filing Environmental Covenant

Within thirty (30) days after filing with the Hocking County Recorder the executed Environmental Covenant, Respondent shall certify to Ohio EPA that the Environmental Covenant has been filed for recording, and include with the certification a file and date-stamped copy of the recorded Environmental Covenant. If the Environmental Covenant is violated or breached Respondent shall be in violation of these Orders.

20. Notice of Intention to Transfer Property

Prior to each conveyance by Respondent of an interest in any portion of the Site that is subject to an Environmental Covenant filed pursuant to Paragraph 18, including but not limited to easements, deeds, leases and mortgages, Respondent shall notify Transferee of the existence of the security, containment, treatment, or monitoring systems and/or activity and use limitations and shall provide a copy of these Orders to Transferee. Respondent shall notify Ohio EPA at least thirty (30) days in advance of each such conveyance. Respondent's notice shall include the name and address of the Transferee and a description of the provisions made for the continued access to and maintenance of the security, containment, treatment, and monitoring systems, and/or activity and use limitations.

21. Instrument and Confirmation of Conveyance

Upon each conveyance by Respondent of an interest in any portion of the Site that is subject to an Environmental Covenant filed pursuant to Paragraph 18, including but not limited to easements, deeds, leases and mortgages, Respondent shall include in the

instrument of conveyance a restatement consistent with paragraph 10 of the Environmental Covenant. Within thirty (30) days after each such conveyance, Respondent shall submit to Ohio EPA, via certified mail, the following information:

a. A copy of the deed or other documentation evidencing the conveyance;
b. The name, address, and telephone number of the new Property owner and the name, address, and telephone number of the contact person for the Property owner;

c. A legal description of the Property, or the portion of the Property, being transferred;

d. A survey map of the Property, or the portion of the Property, being transferred; and

e. The closing date of the transfer of ownership of the Property, or portion of the Property.

IX. ADDITIONAL WORK

22. Ohio EPA or Respondent may determine that in addition to the tasks defined in the approved RD/RA Work Plan, additional Work may be necessary to accomplish the Objectives of the Parties as provided in the General Provisions Section of these Orders. Additional Work may also include, pursuant to ORC § 3734.20 or other applicable law, the implementation of interim actions to address substantial threats to public health or safety or the environment should such threats be identified during the conduct of the RD/RA.

23. Within ninety (90) days of receipt of written notice from Ohio EPA that additional Work is necessary, unless otherwise specified in writing by Ohio EPA, Respondent shall submit a proposed addendum to the RD/RA Work Plan ("RD/RA Work Plan Addendum"), which contains (a) a work plan for the implementation of the additional Work, (b) any revisions to the Supporting Documents and other RD/RA deliverables, as appropriate, (c) a schedule for the performance of the additional Work, and (d) revisions to other schedules impacted by the additional Work, if any. If Respondent disputes the necessity of additional Work, Respondent shall initiate the procedures for dispute resolution set forth in the Dispute Resolution Section of these Orders within fourteen (14) days after receipt of Ohio EPA's notification of the need for additional Work. The RD/RA Work Plan Addendum shall conform to the standards and requirements set forth in the documents attached to these Orders as Attachments B and C (RD/RA SOW and List of Relevant Guidance Documents). Upon approval of the RD/RA Work Plan Addendum by Ohio EPA pursuant to the Review of Submissions Section of these Orders, Respondent shall implement the approved RD/RA Work Plan Addendum in accordance with the schedules contained therein.

24. If Respondent determines that additional Work is necessary, Respondent shall submit a proposal to Ohio EPA to explain what the additional Work is, why the additional Work is necessary, and what impact, if any, the additional Work will have on the RD/RA Work Plan and schedule. If Ohio EPA concurs with the request to perform additional Work, Respondent shall submit a RD/RA Work Plan Addendum, as described above, for the performance of additional Work. The RD/RA Work Plan Addendum shall conform to the standards and requirements set forth in the documents attached to these Orders as Attachments B and C. Upon approval of the RD/RA Work Plan Addendum by Ohio EPA pursuant to the Review of Submissions Section of these Orders, Respondent shall implement the approved RD/RA Work Plan Addendum in accordance with the schedules contained therein. Additional Work does not include any activity performed in response to an emergency at the Site for which Respondent submitted to Ohio EPA written notice of the performed activity.

X. SAMPLING AND DATA AVAILABILITY

25. Unless otherwise agreed to by the Site Coordinators or in the case of an emergency, Respondent shall notify Ohio EPA not less than fifteen (15) days in advance of all sample collection activity. Upon request, Respondent shall allow split and/or duplicate samples to be taken by Ohio EPA or its designated contractor. Ohio EPA shall also have the right to take any additional samples it deems necessary. Upon request, Ohio EPA shall allow Respondent to take split and/or duplicate samples of any samples Ohio EPA takes as part of its oversight of Respondent's implementation of the Work. Unless such samples are taken on an emergency basis, Ohio EPA shall make reasonable efforts to provide three working days' notice of such sampling to allow Respondent to participate as indicated. In the event of an emergency sampling event, Respondent shall make reasonable efforts to inform the Ohio EPA Site Coordinator as soon as practicable.

26. Within seven (7) days of Respondent's receipt of a request by Ohio EPA, Respondent shall submit to Ohio EPA copies of the results of all sampling and/or tests or other data, including raw data and original laboratory reports, generated by or on behalf of Respondent with respect to the Site and/or the implementation of these Orders. An electronic copy shall also be provided in a format approved by Ohio EPA. Respondent may submit to Ohio EPA any interpretive reports and written explanations concerning the raw data and original laboratory reports. Such interpretive reports and written explanations shall not be submitted in lieu of original laboratory reports and raw data. Should Respondent subsequently discover an error in any report or raw data, Respondent shall promptly notify Ohio EPA of such discovery and provide the correct information.

XI. ACCESS

27. Ohio EPA and its contractors shall have access at all reasonable times to the Site and any other property to which access is required for the implementation of these Orders,

to the extent access to the property is controlled by Respondent. Except where immediate access is required in the case of an emergency, the Ohio EPA representative shall provide prior notice to Respondent, via the Site Coordinator or alternate. Access under these Orders shall be for the purposes of conducting any activity related to these Orders including but not limited to the following:

a. Monitoring the Work;

b. Conducting sampling;

c. Inspecting and copying records, operating logs, contracts, and other documents related to the implementation of these Orders;

d. Conducting investigations, tests, and other activities associated with the implementation of these Orders; and

e. Verifying any data and/or other information submitted to Ohio EPA.

28. To the extent that the Site or any other property to which access is required for the implementation of these Orders is owned or controlled by persons other than Respondent, Respondent shall use their reasonable efforts to secure from such persons access for Respondent and Ohio EPA and its contractors as necessary to effectuate these Orders. Copies of each access agreement obtained by Respondent shall be provided to Ohio EPA upon execution of the access agreement. If any access required to implement these Orders is not obtained prior to Respondent's submission of the RD/RA Work Plan, unless otherwise agreed to in writing by Ohio EPA, Respondent shall promptly notify Ohio EPA in writing of the steps Respondent has taken to attempt to obtain access. Ohio EPA may, as it deems appropriate, assist Respondent in obtaining access.

29. Notwithstanding any provision of these Orders, the State of Ohio retains all of its access rights and authorities, including enforcement authorities related thereto, under any applicable statute or regulation including but not limited to ORC §§ 3734.20 and 6111.05.

XII. DESIGNATED SITE COORDINATORS

30. Within seven (7) days of the effective date of these Orders, Respondent shall notify Ohio EPA, in writing, of the name, address, telephone number and email address of their designated Site Coordinator(s) and Alternate Site Coordinator(s).

31. As used in these Orders, the term "Site Coordinator" refers interchangeably to the Site Coordinator and the Alternate Site Coordinator designated for a named party. If any designated Site Coordinator is changed, the identity of the successor will be given to the other Party at least seven (7) days before the changes occur, unless impracticable, but in no event later than the actual day the change is made.

32. To the maximum extent practicable, except as specifically provided in these Orders, communication between Respondent and Ohio EPA concerning the implementation of these Orders shall be made between the Site Coordinators. Respondent's Site Coordinator(s) shall be available for communication with Ohio EPA regarding the implementation of these Orders for the duration of these Orders. Each Site Coordinator shall be responsible for ensuring that all communications from the other Parties are appropriately disseminated and processed. Respondent's Site Coordinator(s) shall be present on the Site or on-call during all hours of Work at the Site.

33. Without limitation of any authority conferred on Ohio EPA by statute or regulation, Ohio EPA's Site Coordinator's authority includes but is not limited to the following:

a. Directing the type, quantity and location of samples to be collected by Respondent, pursuant to an approved Work Plan;

b. Collecting samples;

c. Observing, taking photographs, or otherwise recording information related to the implementation of these Orders, including the use of any mechanical or photographic device;

d. Directing that the Work stop whenever Ohio EPA's Site Coordinator determines that the activities at the Site may create or exacerbate a threat to public health or safety or worker safety, or threaten to cause or contribute to air or water pollution or soil Contamination;

e. Conducting investigations and tests related to the implementation of these Orders;

f. Inspecting and copying records, operating logs, contracts and/or other documents related to the implementation of these Orders; and

g. Assessing Respondent's compliance with these Orders.

XIII. PROGRESS REPORTS AND NOTICE

34. Unless otherwise directed by Ohio EPA, during RD and RA construction, as provided in Section 3.7 of the RD/RA SOW, Respondent shall submit a written progress report to the Ohio EPA by the tenth (10) day of every month. At a minimum, the progress reports shall include information designated in Section 3.7 of the RD/RA SOW. Monthly reports may not be used to propose modifications to approved plans; Respondent shall submit such requests to Ohio EPA in a separate written correspondence.

35. Progress reports shall be sent by e-mail or other electronic transfer method to the address listed below. All other documents (two copies) required to be submitted pursuant to these Orders to Ohio EPA shall be sent to the following agency address:

Michael D. Sherron, or his successor
Ohio EPA SEDO DERR
2195 East Front Street
Logan, Ohio 43138
michael.sherron@epa.ohio.gov

All written (including electronic) correspondence to Respondent shall be directed to:

Stan Levenger (Site Coordinator)
The Goodyear Tire & Rubber Company
200 Innovation Way
Akron, Ohio 44316
stan_levenger@goodyear.com

Jeff Sussman (Alternative Site Coordinator)
The Goodyear Tire & Rubber Company
200 Innovation Way
Akron, Ohio 44316
jeff_sussman@goodyear.com

A Party may designate an alternative contact name or address upon written notification to the other Party and in accordance with the Designated Site Coordinators Section of these Orders, as applicable.

XIV. REVIEW OF SUBMISSIONS

36. Ohio EPA shall promptly review any work plan, report, or other item required to be submitted pursuant to these Orders.

37. Upon review, Ohio EPA may in its sole discretion: (a) approve the submission in whole or in part; (b) approve the submission with specified conditions; (c) modify or, modify and approve, the submission; (d) disapprove the submission in whole or in part; or (e) any combination of the above. The results of Ohio EPA's review shall be detailed in writing and shall identify any conditions, modifications and/or deficiencies. Excluded from Ohio EPA approval pursuant to this Section are the health and safety plan (HASP) and any progress reports.

38. In the event that Ohio EPA approves an initial submission, Respondent shall proceed to take such action as required by Ohio EPA. In the event that Ohio EPA approves with conditions or modification an initial submission, Respondent shall either (a)

proceed to take such action as required by Ohio EPA, or (b) initiate the procedures for dispute resolution set forth in the Dispute Resolution Section of these Orders within fourteen (14) days of receipt of Ohio EPA's written response to Respondent's submission. Respondent shall proceed to take any action required by an unmodified or unconditioned portion of the submission, as those portions are considered approved.

39. In the event that Ohio EPA disapproves an initial submission in whole or in part and notifies Respondent in writing of the deficiencies, Respondent shall within thirty (30) days, or such longer period of time as specified by Ohio EPA in writing, correct the deficiencies, and/or incorporate the conditions, and submit a revised submission to Ohio EPA for approval. The revised submission shall incorporate all of the changes, additions, and/or deletions specified by Ohio EPA in its notice of disapproval. Revised submissions shall be accompanied by a letter indicating how and where each of Ohio EPA's comments was incorporated into the revised submission. To facilitate review of the revised submission, those portions of the document not affected by the Ohio EPA comments should remain unchanged. The letter accompanying the submission should indicate, however, any indirect changes necessitated by Ohio EPA's comments.

40. To the extent that Respondent disputes any of Ohio EPA's changes, additions, and/or deletions to an initial submission, Respondent shall initiate the procedures for dispute resolution set forth in the Dispute Resolution Section of these Orders, within fourteen (14) days after receipt of Ohio EPA's written notice of disapproval. Notwithstanding the disapproval, Respondent shall proceed to take any action required by a portion of the submission that is not specified as disapproved in the notice of disapproval.

41. In the event that Ohio EPA disapproves or modifies a revised initial submission, in whole or in part, and notifies Respondent in writing of the deficiencies, within thirty (30) days, or such longer period of time as specified in writing by Ohio EPA, to: (a) correct the deficiencies and incorporate all changes, additions, and/or deletions, and submit the revised submission to Ohio EPA for approval, or (b) initiate the dispute resolution process pursuant to the Dispute Resolution Section of these Orders. If Respondent fails to submit a revised submission incorporating all changes, additions, modifications and/or deletions within thirty (30) days, or such longer period of time as specified by Ohio EPA in writing, or alternatively, fails to initiate the procedures for dispute resolution set forth in the dispute resolution section of these Orders, Respondent shall be considered in breach and/or violation of these Orders. If Respondent is in breach and/or violation of these Orders, Ohio EPA retains the right to perform any additional remediation, conduct studies and investigation, conduct a complete or partial Remedial Design or Remedial Action; and/or enforce the terms of these Orders as provided in the Reservation of Rights Section of these Orders.

42. All work plans, reports, or other items required to be submitted to Ohio EPA under these Orders shall, upon approval by Ohio EPA, be deemed to be incorporated in and made an enforceable part of these Orders. In the event that Ohio EPA approves a portion

of a work plan, report, or other item, the approved portion shall be deemed to be incorporated in and made an enforceable part of these Orders.

XV. DISPUTE RESOLUTION

43. The Site Coordinators shall, whenever possible, operate by consensus.

44. In the event of disapproval, or an approval with condition(s) or modification(s), by Ohio EPA of a submission by Respondent, or a disagreement regarding the Work performed under these Orders or Reimbursement of Costs, or any other activity or situation in which Dispute Resolution is expressly authorized herein, Respondent's Site Coordinator(s) shall notify Ohio EPA's Site Coordinator in writing that Respondent wishes to invoke an informal dispute pursuant to this Section. The notification to invoke an informal dispute shall occur prior to the submission deadline.

45. The Parties shall have ten (10) days from the date written notice of the informal dispute is received by Ohio EPA's Site Coordinator to negotiate in good faith to resolve the dispute. This informal dispute resolution period may be extended by agreement of the Site Coordinators for up to twenty (20) additional days.

46. In the event that the dispute is not resolved during the informal dispute resolution period, Respondent's Site Coordinator(s) shall notify Ohio EPA's Site Coordinator in writing by the end of the informal dispute resolution period that Respondent wishes to invoke a formal dispute pursuant to this Section. This notice shall include a brief description of the item(s) in dispute. Within twenty (20) days of receipt of the written notice invoking the formal dispute resolution procedure, the Site Coordinators shall exchange written positions, including technical rationale supporting their positions. The Site Coordinators shall have ten (10) days from the date they have exchanged written positions to negotiate in good faith to resolve the formal dispute. This formal dispute period may be extended by agreement of the Site Coordinators for up to twenty (20) additional days.

47. In the event the dispute is not resolved in the informal dispute resolution period, Respondent's Site Coordinator(s) shall notify Ohio EPA's Site Coordinator in writing by the end of the formal dispute resolution period whether Respondent wishes to submit final written positions to a DERR Manager for review and resolution. The Site Coordinators shall have ten (10) days from the end of the informal dispute resolution period to submit their written positions. The DERR Manager will resolve the dispute based upon and consistent with these Orders, the SOW, the RD/RA Work Plan, and applicable or relevant and appropriate federal and state laws. The decision of the DERR Manager is considered final for the purposes of these Orders.

48. The pendency of a dispute under this Section shall extend only the time period for completion of the item(s) in dispute, except that upon mutual agreement of the Site

Coordinators, any time period may be extended as is deemed appropriate under the circumstances. Such agreement shall not be unreasonably withheld by Ohio EPA. Elements of the Work not affected by the dispute shall be completed in accordance with the applicable schedules and time frames.

XVI. UNAVOIDABLE DELAYS

49. Respondent shall cause all Work to be performed in accordance with applicable schedules and time frames set forth in these Orders or any approved work plan unless any such performance is prevented or delayed by an event that constitutes an unavoidable delay. For purposes of these Orders, an "unavoidable delay" shall mean an event beyond the control of Respondent that prevents or delays performance of any obligation required by these Orders and that could not be overcome by due diligence on the part of Respondent. Increased cost of compliance, among other circumstances, shall not be considered an event beyond the control of Respondent for the purposes of these Orders.

50. Respondent shall notify Ohio EPA in writing within ten (10) days after the occurrence of an event that Respondent contends is an unavoidable delay. Such written notification shall describe the anticipated length of the delay, the cause or causes of the delay, the measures taken and to be taken by Respondent to minimize the delay, and the timetable under which these measures will be implemented. Respondent shall have the burden of demonstrating that the event constitutes an unavoidable delay.

51. If Ohio EPA does not agree that the delay has been caused by an unavoidable delay, Ohio EPA will notify the Respondent in writing of that finding and of the noncompliance with these Orders at which point Respondent may invoke the formal dispute resolution procedures in the Dispute Resolution Section of these Orders. If Ohio EPA agrees that the delay is attributable to an unavoidable delay, Ohio EPA will notify Respondent in writing of the length of the extension for the performance of the obligations affected by the unavoidable delay.

XVII. REIMBURSEMENT OF COSTS

52. Ohio EPA has incurred and continues to incur Response Costs in connection with the Site. Respondent shall reimburse Ohio EPA $122,618.75 for past response costs incurred as of September 28, 2015. Respondent shall also reimburse Ohio EPA for all Response Costs incurred after September 28, 2015 and after the effective date of these Orders to the extent such costs were incurred in a manner not inconsistent with the NCP, 40 CFR Part 300.

53. Within sixty (60) days of receipt of an itemized invoice for the Response Costs incurred prior to the effective date of these Orders, Respondent shall remit a check to

Ohio EPA for the full amount invoiced.

54. For Response Costs incurred after the effective date of these Orders, Ohio EPA will submit to Respondent on an annual basis an itemized invoice of its Response Costs for the previous year. Within sixty (60) days of receipt of such itemized invoice, Respondent shall remit payment for all of Ohio EPA's Response Costs for the previous year, unless Respondent invokes the procedures for dispute resolution set forth in the Dispute Resolution Section of these Orders. To the extent Respondent disputes the accuracy of the State of Ohio's request for reimbursement or whether costs are inconsistent with the NCP, Respondent shall initiate the formal dispute resolution provisions of the Dispute Resolution Section within fourteen (14) days after receipt of Ohio EPA's request for reimbursement of costs. Should Respondent dispute a portion of the response costs set forth in an itemized statement, but not all of the costs, Respondent shall timely pay the uncontested portion pursuant to the provisions of the Reimbursement of Costs Section. In the event that Respondent does not remit payment of Response Costs within ninety (90) days after receipt of such invoice, Respondent shall remit payment for the unpaid balance and the interest accrued on the unpaid balance. Interest shall accrue beginning sixty (60) days from the date of the invoice until the date payment is remitted, and shall be calculated at the rate specified by ORC § 5703.47(B) or any subsequent rate adjustments.

55. Respondent shall remit payments to Ohio EPA pursuant to this Section as follows:

a. Payment shall be made by bank check payable to "Treasurer, State of Ohio / Hazardous Waste Special Cleanup Account" and shall be forwarded to Office of Fiscal Administration, Attn: Carol Butler, or her successor, Ohio EPA, Lazarus Government Center, P.O. Box 1049, Columbus, Ohio 43216-1049;

b. A copy of the transmittal letter and check shall be sent to the Fiscal Officer, DERR, Ohio EPA, P.O. Box 1049, Columbus, Ohio 43216-1049, and to the Ohio EPA Site Coordinator; and

c. Each payment shall identify the name and address of the party making payment, the Site name, and Ohio EPA's revenue number identified on the associated invoice.

XVIII. ACCESS TO INFORMATION

56. Upon request, Respondent shall provide to Ohio EPA within thirty (30) days, copies of all documents and information within their possession or control or that of their contractors or agents relating to events or conditions at the Site including but not limited to manifests, reports, correspondence, or other documents or information related to the Work. This provision shall not be a limitation on any request for information to the Respondent by Ohio EPA made under state or federal law for information relating to

events or conditions at the Site.

57. Respondent may assert a claim that documents or other information submitted to Ohio EPA pursuant to these Orders are confidential under the provisions of OAC 3745-50-30, OAC 3745-49-03 or ORC § 6111.05(A). If no such claim of confidentiality accompanies the documents or other information when it is submitted to Ohio EPA, the documents or other information may be made available to the public without notice to Respondent.

58. Respondent may assert that certain documents or other information are privileged under the attorney-client privilege or any other privilege recognized by state law. If Respondent makes such an assertion, they shall provide Ohio EPA with the following: (1) the title of the document or information; (2) the date of the document or information; (3) the name and title of the author of the document or information; (4) the name and title of each addressee and recipient; (5) a general description of the contents of the document or information; and (6) the privilege being asserted by Respondent.

59. No claim of confidentiality shall be made with respect to any data or reports, including but not limited to laboratory or interpretive reports, and all sampling, analytical, and monitoring data. Claims of confidentiality may be asserted for expert reports in accordance with paragraph 58.

60. Respondent shall preserve for the duration of these Orders and for a minimum of ten (10) years after termination of these Orders, all documents and other information within their possession or control, or within the possession or control of their contractors or agents, which in any way relate to the Work notwithstanding any document retention policy to the contrary. Respondent may preserve such documents by electronic or photographic device. At the conclusion of this document retention period, Respondent shall notify Ohio EPA at least sixty (60) days prior to the destruction of these documents or other information; and upon request, shall deliver such documents and other information to Ohio EPA.

XIX. PERIODIC REVIEW

61. Respondent shall conduct studies and investigations as requested by Ohio EPA in order to permit Ohio EPA to conduct reviews as to the effectiveness of the Remedial Action at least every five (5) years as described in section 121(c) of CERCLA and any applicable regulations.

62. If Ohio EPA determines that information received, in whole or in part, during a review conducted pursuant to the Periodic Review Section of these Orders indicates that the Remedial Action is not protective of public health or safety or the environment, the Respondent shall undertake any further response actions Ohio EPA has determined are appropriate. Respondent shall submit a plan for such work to Ohio EPA for approval in

accordance with the procedures set forth in the Review of Submissions Section of these Orders, within thirty (30) days of receiving a request from Ohio EPA to submit such a work plan.

63. Respondent may invoke the procedures in the Dispute Resolution Section to dispute (1) Ohio EPA's determination that the Remedial Action is not protective of public health or safety or the environment, or (2) Ohio EPA's selection of further response actions.

XX. MODIFICATIONS

64. These Orders may be modified by agreement of the Parties. Modifications shall be in writing, signed by the authorized representative of the Respondent and by the Director, and shall be effective on the date entered in the Journal of the Director of Ohio EPA.

XXI. INDEMNITY

65. Respondents agree to indemnify, save, and hold harmless Ohio EPA from any and all claims or causes of action arising from, or related to, Ohio EPA oversight of activities at this Site for the duration of these Orders including any acts or omissions of Respondents, and their successors in interest, in carrying out any activities pursuant to this Order. Said indemnification shall not apply to acts or omissions of Ohio EPA, its employees, agents or assigns at, on, upon, or related to the Site if said acts are negligent, performed outside the scope of employment or official responsibilities, or performed with malicious purpose, in bad faith, or in a wanton or reckless manner. Ohio EPA shall not be considered a party to and shall not be held liable under any contract entered into by Respondent in carrying out the activities pursuant to these Orders. Ohio EPA agrees to provide notice to Respondent within fourteen (14) days after receipt of any third party claim which asserts the subject of indemnity as provided in this Section, and to cooperate with Respondent in the defense of any such claim or action against Ohio EPA.

XXII. CONTRIBUTION AND AGREEMENT NOT TO REFER

66. With respect to matters addressed in these Orders, the Parties hereto agree that these Orders constitute an administrative settlement for purposes of CERCLA sections 113(f)(2) and 113 (f)(3)(B), 42 U.S.C. § 9613(f)(2) and § 9613(f)(3)(B), pursuant to which Respondent has resolved their liability to the State, and that Respondent is entitled to contribution protection and contribution rights as of the effective date of these Orders as to any liable persons who are not parties to these Orders, as provided by CERCLA section 113(f)(2) and (f)(3)(B), 42 U.S.C. § 9613(f)(2) and (f)(3)(B), provided that Respondent complies with these Orders. The "matters addressed" in these Orders are all investigative

and remedial actions taken or to be taken and all response costs incurred or to be incurred by Ohio EPA or any other person with respect to the Site, including without limitation the Work and Response Costs under these Orders.

67. During the implementation of these Orders, and provided Respondent is considered by Ohio EPA to be in compliance with these Orders, Ohio EPA agrees not to refer Respondent to the Ohio Attorney General's Office for enforcement, or take administrative enforcement action against Respondent or their successors in interest liable under Ohio law for Work required under these Orders at the Site. Upon termination of these Orders pursuant to the Termination Section, Ohio EPA agrees to not refer Respondent to the Ohio Attorney General's Office for enforcement, or take administrative enforcement action against Respondent and their successors in interest liable under Ohio law for Work required under these Orders at the Site.

XXIII. OTHER CLAIMS

68. Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation not a Party to these Orders, for any liability arising from, or related to, events or conditions at the Site.

XXIV. RESERVATION OF RIGHTS

69. Ohio EPA reserves the right to seek legal and/or equitable relief to enforce the terms and conditions of these Orders, including penalties against Respondent for noncompliance with these Orders. Except as provided herein, Respondent reserves any rights they may have to raise any legal or equitable defense in any action brought by Ohio EPA to enforce the terms and conditions of these Orders.

70. Ohio EPA reserves the right to terminate these Orders and/or perform all or any portion of the Work or any other measures in the event that the requirements of these Orders are not wholly complied with within the time frames required by these Orders provided the Work at issue is not being disputed pursuant to the Dispute Resolution Section of these Orders.

71. Ohio EPA reserves the right to take any action, including but not limited to any enforcement action, action to recover costs, or action to recover damages to natural resources, pursuant to any available legal authority as a result of past, present, or future violations of state or federal laws or regulations or the common law, and/or as a result of events or conditions arising from, or related to, the Site. Respondent reserves its rights to defend any such enforcement action, action to recover costs, or action to recover damages to natural resources and to raise any counterclaim, affirmative defense, third-party claim or cross claim which it may have with respect to these actions. Upon

termination pursuant to the Termination Section of these Orders, Respondent shall have resolved their liability to Ohio EPA only for the Work performed pursuant to these Orders.

72. Respondent reserves all rights, claims, demands and causes of action they may have against any and all persons and entities who are not parties to these Orders, including rights of contribution against any other parties who may be liable for actual or threatened releases of contaminants at the Site.

XXV. TERMINATION

73. Respondent's obligations under these Orders shall terminate upon Ohio EPA's written approval of Respondent's written certification to Ohio EPA that all Work required to be performed under these Orders including payment of Response Costs has been completed. The Respondent's certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate, and complete." This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of the Respondent. The termination of Respondent's obligations under these Orders shall not terminate the Respondent's obligations under the Reservation of Rights, Access to Information, Indemnity, Other Claims, Contribution and Agreement Not to Refer, and Land Use and Conveyance of Title Sections of these Orders. Once submitted, the Ohio EPA Site Coordinator will promptly review Respondent's written certification for approval or disapproval and approve or disapprove such certification.

XXVI. WAIVER AND AGREEMENT

74. In order to resolve disputed claims, without admission of fact, violation, or liability, Respondent consents to the issuance of these Orders, and agrees to comply with these Orders.

75. Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders and Respondent hereby waives any and all rights that they may have to seek administrative or judicial review of these Orders either in law or equity.

76. Notwithstanding the waiver herein of Respondent's right to appeal or seek administrative or judicial review, Ohio EPA and Respondent agree if these Orders are appealed by any other party to the ERAC, or any court, Respondent retains the right to intervene and participate in such appeal. In such event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XXVII. EFFECTIVE DATE

77. The effective date of these Orders shall be the date these Orders are entered in the Journal of the Director of Ohio EPA.

XXVIII. SIGNATORY AUTHORITY

78. Each undersigned representative of a Party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such Party to these Orders.

IT IS SO ORDERED AND AGREED:

OHIO ENVIRONMENTAL PROTECTION AGENCY

Craig W. Butler, Director
Ohio Environmental Protection Agency

NOV 09 2015
Date

IT IS SO AGREED:

The Goodyear Tire & Rubber Company

Dennis E. McGavis
Global VP, EHS & Sustainability

10/16/15
Date

Attachment A

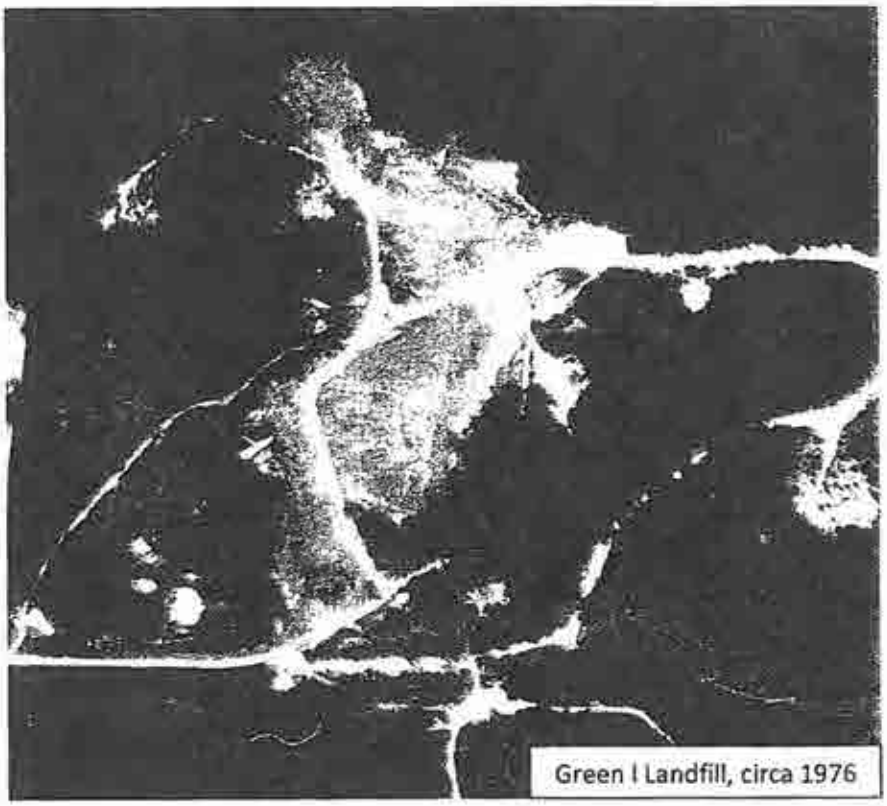
Amended Decision Document

OHIO E.P.A.
MAR 19 2015

Amended Decision Document

For the Remediation of Green I Landfill

Green Township, Hocking County, Ohio



Green I Landfill, circa 1976

Division of Environmental Response and Revitalization
Remedial Response Program
January 2015

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: Jenny Lassiter Date: 3-19-15

Ohio EPA's Division of Environmental Response and Revitalization (DERR) - Assessment, Cleanup & Reuse Program Remedial Response Section			Amended Decision Document For the Remediation of the Green I Landfill Site Green Township, Hocking County, Ohio		
The Remedial Response Process					
(1) Preliminary Assessment & Site Inspection	(2) Remedial Investigation (RI) & Feasibility Study (FS)	(3) Remedy Selection (Preferred Plan & Decision Document)	(4) Remedial Design (RD)	(5) Remedial Action (RA)	(6) Remedy Operation & Maintenance (O&M)

Ohio EPA Announces Amended Decision Document

On December 31, 2013, Ohio EPA issued an Amended Preferred Plan that outlined Ohio EPA's preferred alternative to remediate contamination at the Green I Landfill site. Ohio EPA held a public meeting on February 12, 2014, at the Ohio EPA Southeast District Office located at 2195 East Front Street, Logan, Ohio, to explain the Amended Preferred Plan. Oral and written comments were accepted at this meeting and during the comment period which ended February 21, 2014. Section 8.0 (Responsiveness Summary) of this Amended Decision Document summarizes the comments and Ohio EPA's responses.

Based on the Amended Preferred Plan and the consideration of comments received during the comment period, Ohio EPA is issuing this Amended Decision Document identifying the selected remedial alternative for the cleanup of the contamination at the site, and providing the rationale for the selection. It also includes summaries of other remedial alternatives evaluated for use at this site.

Ohio EPA is issuing this Amended Decision Document in a manner consistent with Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It summarizes information found in detail in the remedial investigation and feasibility study reports and other documents contained in the administrative record file for this site. Ohio EPA encourages the public to review these documents to gain a better understanding of the site and the activities that have been conducted at the site.

ERAC Appeal Period: As a final action of the Director of Ohio EPA, the Amended Decision Document may be appealed to the Environmental Review Appeals Commission (ERAC) pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with ERAC (77 South High Street, 17th Floor, Columbus, OH 43215) within thirty (30) days after notice of the Director's action.

Additional Information: Available from Site Coordinator Michael Sherron at the Southeast District Office, located at 2195 East Front Street, Logan, Ohio, or by calling 740-385-8501 or by email: Michael.Sherron@EPA.Ohio.gov. Specific site documents can be reviewed at the Logan-Hocking County Library in Logan, Ohio.

DECLARATION

SITE NAME AND LOCATION

Green I Landfill, Hunters Woods Road, Logan, Hocking County, Ohio

STATEMENT OF BASIS AND PURPOSE

This Amended Decision Document presents the selected remedial action for the Green I Landfill in Green Township (Logan), Hocking County, Ohio, chosen in accordance with the policies of the Ohio Environmental Protection Agency, statutes and regulations of the State of Ohio, and the National Contingency Plan, 40 CFR Part 300.

ASSESSMENT OF THE SITE

Actual and threatened releases of industrial waste, hazardous waste and other wastes at the site, if not addressed by implementing the remedial action selected in the Amended Decision Document, constitute a substantial threat to public health or safety and are causing or contributing to air or water pollution or soil contamination.

From 1970 to 1974, the Green I Landfill was the only local disposal facility near Logan, Ohio, and accepted household, municipal, and industrial wastes. A number of local manufacturing facilities disposed of approximately 4,600 drums of liquid industrial wastes, including polyols (an alcohol compound), isocyanates, alcohols, oils, waxes, paints, solvents, paint booth cleanings, broken glass, floor sweepings, glass batch and flue dust residues as well as furnace refractories. The landfill was closed, but not in full accordance with applicable Ohio environmental statutes and regulations in effect at the time. Contaminated leachate has been observed discharging from the landfill perimeter in violation of Ohio law.

DESCRIPTION OF THE SELECTED REMEDY

The major components of the selected remedial alternative include:

- Construction of a composite cap system that will include an impermeable flexible membrane liner, passive gas venting, a clay layer consisting of existing soils at the Site, a drainage layer, a protective layer and a vegetative cover;
- Collection and storage (or treatment) of leachate discharging from the nine seeps at the perimeter of the landfill to prevent direct contact with the leachate and prevent discharge to surface water;
- Development of a long-term operation and maintenance plan that will include periodic sampling of groundwater, inspection of the installed landfill cap system, and leachate collection activities; and

- Establishment of an environmental covenant on the landfill property to prohibit the use of groundwater for potable or agricultural uses, and to prohibit building or placement of any permanent, occupied structure on the landfill property.

STATUTORY DETERMINATIONS

The selected remedial action is protective of human health and the environment, complies with legally applicable state and federal requirements, is responsive to public participation and input and is cost-effective. The remedy uses permanent solutions and treatment technologies to the maximum extent practicable to reduce toxicity, mobility and volume of hazardous substances at the Site. The effectiveness of the remedy will be reviewed regularly.

Craig W. Butler, Director

1/23/15
Date

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AMENDED DECISION DOCUMENT
Green I Landfill
Green Township, Hocking County, Ohio

1.0 INTRODUCTION

1.1 Executive Summary

On September 20, 2002, The Goodyear Tire & Rubber Company (Goodyear) signed Director's Final Findings and Orders with the Ohio Environmental Protection Agency (Ohio EPA) to investigate and develop remedial alternatives for the Green I Landfill located in Green Township, Hocking County, Ohio (Site). The remedial investigation (RI) Report was approved in December 2005. Through the course of conducting the RI, Ohio EPA's understanding of the Green I Landfill has greatly increased. The lateral and vertical extents of the landfill have been defined, the seeps and groundwater have been sampled, and the various ways that people, animals, birds, plants and other species can be affected by the landfill have been studied. The feasibility study (FS) Report was approved in December 2007 and outlined various options for addressing the threats to public health, safety and the environment identified during the RI.

The 10.6 acre Site is irregularly shaped and has nine locations where water appears on the ground surface (seeps) after coming into contact with waste (leachate). The major health and environmental risks of this Site come from direct contact with waste materials in the landfill; direct contact or ingestion of leachate emanating from the landfill or sediments in the on-Site drainage ways receiving leachate; and direct contact or ingestion of contaminated soils at the Site. Contaminants from the Green I Landfill have been detected in shallow groundwater, but not in the deeper regional aquifer used by local residents as a source of potable water. Contaminants found at the Green I Landfill in concentrations which pose a threat to human health or the environment include: acetone, benzene, benzoic acid, carbazole, ethylbenzene, trichlorothene, 1,4–dichlorobenzene, polychlorinated biphenyls (PCBs), and vinyl chloride. The following metals were also detected at the Site in concentrations that exceed background (naturally occurring in the vicinity of the Site) concentrations or cleanup standards: arsenic, barium, cadmium, copper, lead, manganese, selenium, thallium, vanadium, and zinc.

A human health risk assessment and an ecological risk assessment were conducted at the Site. The results demonstrated that the existing contaminants in environmental media pose or potentially pose unacceptable risks and/or hazards to human and ecological receptors sufficient to trigger the need for remedial actions.

Ohio EPA has prepared this Amended Decision Document for the remediation of the Site. The original Preferred Plan was issued by Ohio EPA on February 9, 2010, followed by a Decision Document dated November 22, 2010. Goodyear appealed the Decision Document to the Environmental Review Appeals Commission (ERAC) on

December 21, 2010, and the General Electric Corporation (GE) later joined the appeal. Based on the review of available information, including the information provided by Goodyear on January 16, 2013, and on the Ohio EPA approval on July 2, 2012 of Goodyear's request for an exemption pursuant to Ohio Revised Code (ORC) 3734.02(G) to a number of landfill capping requirements, Ohio EPA has modified the selected remedial alternative included in the February 2010 Preferred Plan and November 2010 Decision Document.

This Amended Decision Document summarizes information on the range of remedial alternatives evaluated; identifies Ohio EPA's selected remedial alternative and explains the reasons for selection of the remedial alternative. The Amended Decision Document is based primarily on an Ohio EPA approved RI and FS prepared by Goodyear and additional information provided and evaluated by the Agency during the ERAC appeal.

1.2 Scope of the Selected Remedial Action

Ohio EPA's selected remedial alternative should yield a permanent solution for risks associated with the contaminated media at the Site. The expectations for the selected alternative include:

- Reduction of human health risks to within acceptable limits; protecting human health and the environment from exposure to contaminants of concern in the buried waste, soil, ground water and surface water that are above acceptable limits;
- Short and long-term protection of public health and the environment;
- Compliance with applicable regulations;
- Cost-effectiveness and limitation of expenses to what is necessary to achieve the selected alternative's expectations; and
- Development of an operation and maintenance (O&M) plan to ensure the long-term protectiveness of the preferred remedial action and monitoring systems.

The selected remedial alternative in this Amended Decision Document includes:

- Construction of a composite cap system that will include an impermeable flexible membrane liner, passive gas venting, a clay layer consisting of existing soils at the Site, a drainage layer, a protective layer and a vegetative cover;
- Collection and storage (or treatment) of leachate discharging from the nine seeps at the perimeter of the landfill to prevent direct contact and discharge to surface water;
- Development of a long-term operation and maintenance plan that will include periodic sampling of groundwater, inspection of the installed landfill cap system, and leachate collection activities; and
- Establishment of an environmental covenant on the landfill property to prohibit the use of groundwater for potable or agricultural uses, and to prohibit building or placement of any permanent, occupied structure on the landfill property.

Ohio EPA finds that these measures will protect public health and the environment by reducing risk to acceptable levels once the remedial action objectives have been achieved.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Green I Landfill is located on Hunters Woods Road in Green Township, Hocking County, Ohio (see Figure 1) approximately one and three-quarters miles north of the City of Logan. From 1970 to 1974, the Green I Landfill was owned and operated by Lee and Evelyn Notestine. Richard Donahey assisted with operations. Later, Mr. Notestine and Mr. Donahey became business partners. In 1978, Mr. Notestine sold his interest to Mr. Donahey, who is now deceased. In 1979 the plat for the Hunters Woods Subdivision was filed in the Hocking County Recorder's Office. From 1975 to 1990, the landfill property was owned by Mr. Donahey, but the mortgage was held by Citizen's Bank of Hocking County. Approximately six of the 10.6 acres of the landfill were auctioned to private individuals in the fall of 1989, which led to the further development of the area.

The majority of the landfill, along with some additional acreage, was sold to Leslie Johnson on May 4, 1990 at a sheriff's auction. In 1991, Mr. Johnson subdivided the property into three sections and sold approximately 22 acres, which included most of the Green I Landfill, to Mr. Bill Hamby. Goodyear purchased the majority of property on which the landfill is situated during the Remedial Investigation.

The Green I Landfill was the only local disposal facility near Logan, Ohio, in the early 1970s and accepted household, municipal, and industrial wastes. Goodyear's local production facility disposed of approximately 4,600 drums of liquid industrial wastes (The Goodyear Tire & Rubber Company, Wolfe, D.L., 1983). These drummed wastes included polyols (an alcohol compound), isocyanates, alcohols, oils, waxes, paints, solvents, and paint booth cleanings. In addition, Goodyear also disposed of various solid wastes at the Green I Landfill. GE also disposed of solid wastes at the Green I Landfill. These wastes included broken glass, floor sweepings, glass batch and flue dust residues as well as furnace refractories (General Electric, Michael Lamanna, 1990).

The Green I Landfill design was approved by the Ohio Department of Health in 1970. At the time the Green I Landfill operated, it was regulated by the Hocking County Health Department. Records obtained from the Hocking County Health Department and subsequent inspections performed by Ohio EPA indicate that the landfill was never properly closed pursuant to the rules in effect in 1974. In 1983 U.S. EPA installed four monitoring wells at the Green I Landfill, and attributed the identified groundwater contamination to the landfill. Following the U.S. EPA investigation, Ohio EPA conducted a Preliminary Assessment and Green I Landfill was prioritized for additional investigation.

In 1990, additional soil and groundwater samples were collected by Ohio EPA, which confirmed the presence of various contaminants of concern. In November 1990, while attempting to reclaim an oil well, approximately 10 buried drums were exposed during

excavation activities at the Site. A black tar-like substance began to surface and sampling indicated that the material contained a variety of chemicals including polychlorinated biphenyls (PCBs). An emergency action was initiated involving U.S. EPA and Ohio EPA. During this emergency response action, approximately 100 drums and 370 tons of soil were removed from the Site and disposed of at a facility licensed and authorized to accept such waste. PCB contamination of soils remained following the removal action and a U.S. EPA contractor treated the PCB contaminated soils in place.

In 1991, Ohio EPA conducted a geophysical study of the Green I Landfill to determine the approximate limits of waste placement. A secondary objective of the geophysical study was to attempt to identify areas within the landfill waste where large amounts of metals were detectable in order to determine if additional mass drum disposal had occurred. In 1994, a U.S. EPA contractor (PRC Environmental Management) evaluated the Site for inclusion on the National Priorities List (NPL) due to the threat posed to human health and the environment. The U.S. EPA contractor affirmed the presence of contamination, but determined that the Green I Landfill did not meet the requirements for inclusion on U.S. EPA's NPL.

In an effort to monitor the safety of the groundwater used by local residents near Green I Landfill, Ohio EPA conducted periodic private water well sampling from 1985 through 2003. All of the private water wells sampled were drawing water from the regional Big Injun/Blackhand Sandstone aquifer. To date, samples collected from private water wells have not detected landfill contaminants. Public water is available in the area of Green I Landfill, however no service has been established on Hunters Woods Road. All residents in the area of the landfill utilize the regional aquifer for their potable water.

Based on their use of the Green I Landfill for disposal of hazardous substances, Goodyear and GE were identified as responsible parties at the Green I Landfill. Goodyear signed the Ohio EPA Director's Final Findings and Orders to conduct a Remedial Investigation and Feasibility Study in 2002. Several interim actions were initiated for the protection of public health, safety and the environment. These interim actions included the installation of fencing at the Green I Landfill surrounding nine springs of contaminated water ("seeps") and additional sampling and study of two private water wells on and adjacent to the Site. The completion of these activities resulted in the abandonment of one of the private water wells because of poor construction. The remaining private water well was determined to have been constructed in a manner that provides for a safe source of potable water. This was confirmed through several historic sampling events.

The RI Report was approved in December 2005. Through the course of conducting the RI, Ohio EPA's understanding of the Green I Landfill has been greatly increased. The lateral and vertical extents of the landfill have been defined, the seeps and groundwater have been sampled, and the various ways that people, animals, birds, plants and other species can be affected by the landfill have been studied. The FS Report was approved

in December 2007 and outlines various options for addressing the threats to public health, safety and the environment identified during the RI.

On February 9, 2010, Ohio EPA issued a Preferred Plan identifying the preferred alternative for the remediation of the Green I Landfill. A public meeting was held and public comments were received. Several comments received from local residents related to issues of traffic control and roadway access. While Ohio EPA understands the issues associated with the comments, Ohio EPA has no direct jurisdiction over a number of the issues raised. However, Ohio EPA will work with the responsible parties to address these comments to the extent practical during the planning and performance of the work.

On November 22, 2010, the Decision Document for the Remediation of the Green I Landfill was entered into the Director's Journal. On December 21, 2010, Goodyear filed a Notice of Appeal of the November 2010 Decision Document with the Environmental Review Appeals Commission (ERAC), and GE subsequently joined the appeal.

In the November 22, 2010 Decision Document, Ohio EPA selected a remedial alternative that followed the current regulatory capping requirements for a modern landfill. After filing its ERAC appeal, Goodyear submitted to Ohio EPA on September 12, 2011 a request for an exemption pursuant to ORC 3734.02(G) from certain landfill capping requirements. Upon review of the request for an exemption, Ohio EPA found that Goodyear made a technical demonstration that certain modifications to the capping requirements were technically equivalent and unlikely to adversely affect public health, safety or the environment. Accordingly, the Director of Ohio EPA approved Goodyear's exemption request on July 2, 2012. The exemption allows the following to occur as part of the remedy:

- Re-grade and use of existing soils that have been shown through testing to have the required permeability as the minimum 12-inch thick soil barrier;
- Construction of the cap using the existing soils at the Site without the requirement for re-compacting soils during construction and testing; and
- Elimination of the requirement for thirty (30) inches of soil cover for freeze/thaw protection.

In the context of the ERAC appeal negotiations, Ohio EPA was asked by Goodyear to reexamine the sample and lab data associated with the off-Site pond contamination. Goodyear provided additional information on January 16, 2013, to support the request. The screening concentrations used during the ecological risk assessment were based on the "Threshold Effects Concentration" or "TEC." Presently, U.S. EPA has adopted the use of "Probable Effects Concentration" or "PEC" for cleanup standards. The detected concentrations in pond sediments were above the TEC, but below the PEC. This Amended Decision Document reflects this new information, and based on the Agency's evaluation of this updated information, no remediation (no action) is required for the off-site pond.

2.2 Summary of the Remedial Investigation

The RI was conducted by Goodyear and included a number of tasks to identify the nature and extent of Site-related chemical contaminants. The investigation was conducted with oversight by Ohio EPA, and was approved in December 2005. The tasks included sampling of soil, ground water, surface water, and sediment. The data obtained from the investigation were used to conduct a baseline risk assessment (*i.e.*, an evaluation of the risks to humans and the environment posed by a site) and to determine the need to evaluate remedial alternatives. This Amended Decision Document contains only a summary of the RI and FS findings. For additional information, refer to the RI and FS Reports available for review at Ohio EPA's Southeast District Office and at the Logan-Hocking Library, both located in Logan, Ohio.

Included with this Amended Decision Document are figures taken from the RI Report showing the sample locations where testing determined that contaminants exceeded project action levels. During the RI, the following activities were conducted:

- A total of 36 test pits were installed around the Green I Landfill to determine the lateral and vertical extent of wastes at the Site.
- To determine the concentration of metals in soils that have not been impacted by Site activities (i.e., background concentrations), soil samples were collected from 15 soil sample locations outside the limits of the landfill (BSB-1 through BSB-15). Two composite soil samples were prepared from each of the 15 soil sample locations: one representative of a surface soil sample (0 to 4 feet below ground surface, "bgs") and another representative of a subsurface soil sample (4 to 4.5 feet bgs).
- Soil samples were collected from soil borings (SB-1, SB-2, and SB-3) and monitoring well borings (MW-2I, MW-4I, MW-5, MW-6, MW-6I, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13) located outside the landfill limits. These samples were analyzed for volatile organic compounds (VOCs) (Method 8260B), semi-volatile organic compounds (SVOCs) (Method 8270C), and Target Analyte List (TAL) Metals (Methods 6010B and 7471A).
- The shallow and intermediate aquifers were evaluated for hydrogeologic properties using high-resolution borehole imaging and gamma logging. Monitoring wells MW-2I, MW-4I, MW-6I, and MW-6 were evaluated using this equipment.
- Groundwater samples were collected from the 11 newly installed monitoring wells (MW-2I, MW-4, MW-6, MW-6I, and MW-7 through MW-13) and the four existing monitoring wells (MW-1 through MW-4). Groundwater was analyzed for VOCs (Method 8260B), SVOCs (Method 8270C), and total and dissolved TAL Metals (Method 6010B and 7470A). Groundwater from monitoring well MW-8 was also analyzed for polychlorinated biphenyls (PCBs) (Method 8082).
- Surface soil and surface water samples were collected from a total of nine leachate seep locations (Seeps 1 through 8 and 5A). Four to five surface soil samples and one surface water sample were collected from each seep location. All samples were analyzed for VOCs (Method 8260B), SVOCs (Method 8270C), and TAL Metals (Method 6010B and 7470A). Select surface soil samples from Seeps 4, 5 5A and 8 were analyzed for PCBs (Method 8082).

- To determine the concentration of metals in sediments that have not been impacted by Site activities (*i.e.,* background concentrations), 16 sediment samples from four locations (SD-1 through SD-4) were collected. One composite surface (0 to 0.5 feet bgs) sediment sample was collected from each of the 16 sample locations. The sediment samples were analyzed for TAL metals (Method 6010/7470), except beryllium and silver.
- Sediment samples were collected from four locations (SED-1 through SED-4) from 0 to 0.25 feet bgs along the ditch that runs through the Site. The samples were analyzed for VOCs, SVOCs, and metals.
- Three surface water samples (locations 1 through 3) and seven sediment samples (from locations 1 through 4) were collected from a small pond located down slope of Seeps 5 and 5A on property owned by Harold and Donna Phillips ("off-Site pond"). Ohio EPA gained access and samples were collected from the off-Site pond by the Ohio EPA (Goodyear could not obtain access to the property). Pond samples were analyzed for VOCs, SVOCs, TAL metals, and PCBs.

The nature and extent of contamination at the Green I Landfill in each environmental medium and the contaminants of concern attributable to the Site are described below in the following sections.

2.2.1 Soil Contamination

Background Soil Evaluation

To determine the concentration of metals in soils that have not been impacted by Site activities (i.e., background concentrations), soil samples were collected from 15 soil sample locations outside the limits of the landfill (BSB-1 through BSB-15). The sample locations were approved by Ohio EPA and collected from areas at a sufficient distance from the Green I Landfill. Sampling locations were limited to areas where Goodyear had access agreements.

Two composite soil samples were prepared from each of the 15 soil sample locations: one representative of a surface soil sample (0 to 4 feet bgs) and another representative of a subsurface soil sample (greater than 4 feet bgs). The composite surface soil samples were analyzed for TAL metals, except beryllium and silver which had not been detected in the preliminary assessments of the Site. The composite subsurface soil samples were analyzed for arsenic, iron, lead, and manganese. Soil background values were calculated according to Ohio EPA background calculation methodology (Ohio EPA, June 2004).

Landfill Perimeter Soil Evaluation

Soil samples were collected from soil borings (SB-1, SB-2, and SB-3) and monitoring well borings (MW-2I, MW-4I, MW-5, MW-6, MW-6I, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13) located outside the landfill limits. These samples were analyzed for VOCs, SVOCs and TAL Metals. Results of these data are summarized in the RI Report (Table 3 and Figure 4).

Soil sampling results indicate that the soils outside the landfill limits are not impacted with VOCs or SVOCs above project action levels[1]. The results of the soil sampling activities indicate that the soil outside the landfill limits contains concentrations of metals. Three metals (arsenic, iron, and manganese) have been detected at concentrations exceeding Preliminary Remediation Goals (PRGs) and above Site specific background concentrations. Arsenic exceeds PRGs (0.39 ppm) and/or background concentrations (11.025 ppm) in soil from SB-3 (4 to 6 feet), and MW-4I (4 to 6 feet), and MW-6I (6 to 8 feet). Concentrations ranged from 10.8 parts per million (ppm) to 18.1 ppm. Iron was detected exceeding PRGs (23,000 ppm – residential) and above background concentrations (30,850 ppm) in samples collected from borings MW-2I (0-2), and MW-2I 92-4). Concentrations of iron exceeding action levels and above background concentrations range from 37,900 ppm to 59,500 ppm. Manganese was detected in one soil sample from boring MW-2I (2-4) at a concentration of 4,840 ppm, which exceeds PRGs (1,800 ppm – residential) and background soil concentrations (1,327 ppm). Metals (iron, manganese, selenium, vanadium, and zinc) were also determined to exceed project action levels for ecological receptors at several locations outside of the landfill limits.

2.2.2 Ground Water

During the investigation, three ground water aquifers were investigated. On-Site monitoring wells were installed into the shallow and intermediate aquifers. Off-Site, Ohio EPA has sampled the deep, Blackhand Sandstone aquifer which supplies drinking (potable) water to local residents. Sample results from the intermediate aquifer indicate that Site related contaminants have not impacted this zone. Shallow aquifer sampling did, however, reveal impacts from Site-related contaminants. It should be noted that the vertical separation between the shallow and deep aquifers is greater than 250 feet with layers of relatively impermeable bedrock in between, which restricts the potential for downward migration of contaminants.

Borehole Imaging and Gamma Logging

The shallow and intermediate aquifers were evaluated for hydrogelogic properties using high-resolution borehole imaging and gamma logging. Monitoring wells MW-2I, MW-4I, MW-6I, and MW-6 were evaluated using this equipment. The gamma ray response was characteristic of the shale and siltstone (bedrock) formations encountered during drilling activities. The borehole imaging provided excellent resolution of the formations encountered, including bedding features and lithologic contacts. No fractures were observed in the data from the deeper wells. A fracture zone was observed in monitoring well MW-6 at approximately 40 feet bgs. This fracture zone is located in a siltstone/sandstone sequence. This zone was cased in the deeper wells, and was not

[1] A "project action level" is a concentration for a chemical of concern that has been determined by regulation or through a risk assessment to be protective of human health or ecological receptors. This concentration value could be based on a preliminary remediation goal ("PRG"); a drinking water maximum contaminant level ("MCL"); or a background concentration ("background").

observed in the deeper wells that were logged. The complete Geophysical Well Logging Report is included in the RI Report (Appendix E).

Groundwater
Groundwater samples were collected from the 11 newly installed monitoring wells (MW-2I, MW-4, MW-6, MW-6I, and MW-7 through MW-13) and the four existing monitoring wells (MW-1 through MW-4). Groundwater was analyzed for VOCs, SVOCs, and total and dissolved TAL Metals. Groundwater from monitoring well MW-8 was also analyzed for PCBs. Data from these samples are summarized in the RI Report (Table 4 and Figure 5). In June 2004, monitoring wells MW-2, MW-5, and MW-8 were resampled for arsenic and lead (total and dissolved).

Groundwater sampling data indicates that groundwater collected from the monitoring wells is not impacted with SVOCs or PCBs above project action levels. VOCs were detected in three wells (MW-1, MW-6, MW-12) at concentrations exceeding project action levels (MCLs and/or PRGs). Monitoring well, MW-1, located within the landfill limits contained concentrations of benzene (170 parts per billion (ppb)) and chloroform (26 J[2] ppb) which exceeded project action levels of 5 ppb and 0.17 ppb, respectively. Ethylbenzene (32 J ppb) was detected in MW-1 at concentrations below the MCL (700 ppb) but above the PRG (2.9 ppb). Vinyl chloride (1.4 ppb) was detected in monitoring well MW-6 in excess of PRGs (0.02 ppb) but not above the MCL (2.0 ppb). MW-6 is located outside the landfill on the east side about 200 feet north of Seeps 1 and 2. Benzene (0.47 J ppb) and vinyl chloride (1.8 ppb) were detected in excess of PRGs in monitoring well MW-12 but not above MCLs. MW-12 is located outside of the landfill on the south side, east of Seep 7. Concentrations of metals were detected in all wells, except MW-11, in excess of project action levels. Metals detected in groundwater above MCLs and/or PRGs include: aluminum, antimony, beryllium, cadmium, cobalt, iron, manganese, nickel, and thallium. Table 1 (pages 18-19) shows the project action levels for these metals.

2.2.3 Sediment

On-Site Ditch Sediments
Sediment samples were collected from four locations (SED-1 through SED-4) from 0 to 0.25 feet bgs along the ditch that runs through the Site. The samples were analyzed for VOCs, SVOCs, and metals. Results of sampling are provided in the RI Report (Table 7 and Figure 8). These analyses indicate that the sediment is not impacted by VOCs or SVOCs.

Arsenic and lead were detected in the sediment samples above project action levels and background concentrations. Arsenic was detected in all four samples above PRGs and background concentrations. Lead was detected in sample SED-3 at a

[2] A sample result marked with a "J" indicates an estimated value. This value is estimated because the contaminant was detected in the testing, but at a concentration lower than the chemist / analyst can assure the accuracy of the value ("below the method detection limit").

concentration of 838 mg/kg, which exceeds PRGs and background concentrations. Metals (arsenic, iron, lead, manganese, selenium, vanadium, and zinc) were also determined to exceed ecological criteria in several ditch sediment samples.

Off-Site Pond

A small pond is located down slope of Seeps 5 and 5A on an adjacent property, approximately 225 feet north of the landfill. The pond is approximately 60 feet by 80 feet (4,800 square feet) and at its deepest point is approximately four feet deep. This pond was constructed in the late 1970s or early 1980s for use as a temporary water storage area for use during the installation of an oil and gas well, which was never drilled. This man-made pond has limited vegetation and is a poor ecological habitat. Seven sediment samples (from locations 1 through 4) were collected from the off-Site pond by Ohio EPA personnel. Pond sediment samples were analyzed for VOCs, SVOCs, TAL metals, and PCBs. Lab results of sampling are provided in the RI Report (Table 9 and Figure 10).

Results of these analyses indicate that the sediment is not contaminated by VOCs or SVOCs above a level of concern. PCBs were reported in four of the seven samples submitted for analysis. PCBs were encountered at one sample location (Pond Sediment #4 – 0 to 0.5 feet) at a concentration (0.520 ppm) above the TEC. USEPA has adopted the use of a "Probable Effects Concentrations" for total PCBs of 0.676 ppm as a remediation goal based on ecological receptors. Further, the human health remediation goal for PCBs in soil based on a single chemical exposure and a residential scenario would be 2.2 ppm ($1E^{-5}$ excess lifetime cancer risk). The detected concentrations in the pond sediment do not exceed the levels of concern.

Arsenic was detected in each sample above the project action level. Concentrations of arsenic ranged from 23.5 ppm to 68.6 ppm. Iron was detected at each sample location above the project action level. Concentrations of iron ranged from 25,000 ppm to 60,800 ppm. In addition acetone is present at concentrations in the sediments exceeding ecological screening criteria. Benzoic acid and carbazole were detected at low concentrations and retained in the ecological risk assessment because no benchmark values are available for these low toxicity compounds. Although arsenic, iron, acetone, benzoic acid and carbazole were found in detectable concentrations, these compounds do not bioaccumulate and aquatic organisms will not likely be adversely affected.

2.2.4 Surface Water Contamination

At the off-Site pond, surface water samples were collected prior to sediment sample collection at each location. Samples were analyzed for VOCs, SVOCs, TAL metals (total and dissolved), and PCBs. Results of sampling are provided in the RI Report (Table 8 and Figure 9). Results of these analyses indicate that the surface water is not impacted by VOCs, SVOCs or metals (except for manganese, which exceeds ecological criteria) above project action levels. PCBs were encountered at all three sample locations at estimated concentrations above the project action levels. Concentrations of PCBs in surface water from the pond ranged from 0.65 J ppb to 0.88 J ppb. Additional

surface water samples were collected from the leachate seeps as described in the next section.

Although PCBs were detected in the pond surface water, the values were estimated near the detection limits and, given the low concentration of PCBs in the sediment, the likely source of the PCBs was suspended sediment in the samples.

2.2.5 Leachate

Surface soil and surface water samples were collected from a total of nine leachate seep locations (Seeps 1 through 8 and 5A). Four to five surface soil samples and one surface water sample were collected from each seep location. All samples were analyzed for VOCs, SVOCs and TAL Metals. Select surface soil samples from Seeps 4, 5, 5A and 8 were analyzed for PCBs. Surface water samples were analyzed for total and dissolved metals. Surface water samples from Seeps 5 and 5A were also analyzed for PCBs. Results of surface soil and surface water sampling are provided in the RI Report (Table 5 and Figure 6 for surface soil, Table 6 and Figure 7 for surface water).

Leachate Seep Surface Soil Background Samples

To determine the concentration of metals in sediments that have not been impacted by Site activities (i.e., background concentrations), 16 sediment samples were collected from four locations (SD-1 through SD-4). One composite surface (0 to 0.5 feet bgs) sediment sample was prepared from each of the 16 sample locations. The composite sediment samples were analyzed for TAL metals by Method 6010/7470, except beryllium and silver.

Sediment background values were calculated according to Ohio EPA Background Calculation Methodology (Ohio EPA, June 2004). The background sediment soil sample results are summarized in Table 11 of the RI Report. The calculated sediment background levels are summarized in Table 13 of the RI Report.

RI Samples

Results of the surface soil sampling at the leachate seeps indicate that the soils are not impacted with VOCs and SVOCs, except for bis(2-ethyhexyl)phthalate at location Seep 4, which exceeded ecological criteria. However, PCBs were detected above the screening level (0.220 ppm) in one sample from Seep 4 sample location S5 at 0.340 ppm. Arsenic was detected above the PRGs and background concentrations in all seep soil samples collected with the exception of Seep 5A sample location S2. The concentration of arsenic in samples ranged from 15.7 J to 1,400 J ppm. Iron was detected in all seep locations; however, several samples from Seeps 1, 3, 5A, and 7 did not contain concentrations of iron above action levels and above background concentrations. Samples collected from Seeps 5, 6, and 8 contained concentrations of manganese above project action levels and background concentrations. The concentration of manganese ranged from 1,800 J to 8,730 ppm. Thallium was detected in two samples (Seep 6 and 8) in concentrations exceeding project action levels and background concentrations. Metals (arsenic, barium, cadmium, iron, lead, manganese,

selenium, thallium, vanadium, and zinc) were also determined to exceed ecological criteria at several locations in seep soils/sediments.

Leachate Seep Surface Water Samples
Surface water samples were collected from nine leachate seep locations (Seeps 1 through 8 and 5A). Results of the surface water sampling indicate that PCBs were not detected in the samples collected from Seep 5 and 5A. However, water samples from the seeps are impacted with VOCs, SVOCs, and metals. Specifically, Seeps 1, 2, 3, and 8 contained concentrations of benzene above PRGs. Seep 1 contained concentrations of vinyl chloride (1.7 ppb) exceeding PRGs. Ethylbenzene, trichloroethene, and vinyl chloride were also detected above project action levels at Seep 8. The SVOC 1,4-Dichlorobenzene was also detected above action levels at Seep 8.

Several metals (arsenic, iron, lead, and manganese) were detected above MCLs and/or PRGs in the samples collected from all seep locations. Arsenic was detected above action levels in all surface water samples collected (filtered and nonfiltered) at concentrations ranging from 0.0065 B (dissolved) to 1.4 (total) ppm. Iron was detected above action levels in all samples except those collected from Seeps 2, 5A, 6, and 7. Dissolved iron was detected above project action levels from samples collected at Seeps 1 and 8. Concentrations of lead were detected above MCLs and/or PRGs in all surface water samples, except the sample collected from Seep 1. Manganese was detected above PRGs at a concentration of 3.2 J ppm in one sample collected from Seep 5. Metals (arsenic, copper, iron, lead, manganese, and zinc) were also determined to exceed ecological criteria in several seep water samples.

2.3 Interim or Removal Actions Completed to Date

Fencing
Two interim actions were initiated to protect public health, safety and the environment during the RI. The first interim action was to install fencing around each leachate seep area to restrict access to these areas. These fences were installed in the summer of 2003. During field activities, two additional seeps were located at the Site, for a total of nine seep locations (Seeps 1 through 8 and Seep 5A). Fencing was installed around all nine seep locations (Figure 2). The fencing at the Site was a minimum of six feet high with a minimum three-strand barbed wire at the top of the fence. Where appropriate, set backs of 25 feet from the edge of the seep were installed, unless there were physical constraints. A five-foot gate was also installed at each fence location to allow for inspection of the seep areas. These fences will remain in place until construction of the remedy.

Targeted Residential Well Sampling
In an effort to verify the safety of the regional aquifer for use by local residents, a second interim action was conducted. This second interim action involved sampling groundwater from two private water wells (Horn and Hamby residences) to determine if these wells had been impacted by historical Site operations. The locations of these

wells are shown on Figure 2. Water from the wells was analyzed for VOCs, SVOCs, and TAL metals (filtered and non-filtered).

On June 10, 2003, the private water wells located on the Hamby (now Goodyear property) and Horn properties were sampled in accordance with the Ohio EPA approved Source Control Interim Action (SCIA) Work Plan. Water samples were analyzed for VOCs, SVOCs, and TAL Metals.

The results of the June 2003 sampling indicated that VOCs, SVOCs, and thallium were detected in samples collected from the Horn well. After evaluating the data from the Horn well, it was determined that the well should be resampled to validate results. On August 18, 2003, groundwater samples were collected directly from the Horn water well head and submitted to the laboratory for VOC, SVOC, and total and dissolved metal analysis.

The August 2003 laboratory results for the Horn well indicated that thallium was not a COC, as it was not encountered above the method detection limit of 0.010 ppm. VOC data was unavailable due to an electrical outage at the laboratory. However, total lead (0.067 ppm) was detected in the samples collected from the Horn well above the MCL (0.015 ppm), and concentrations of dissolved lead were found to be below method detection limits. The water samples collected from the Horn well on August 18, 2003, were turbid and contained small amounts of sediment. The concentrations of total lead were most likely caused by the small amount of sediment in the groundwater samples; however, it was determined that the Horn well would be sampled again to confirm these results.

The Horn well was sampled again directly from the water well for VOC analysis on October 8, 2003. However, due to anomalies in the metals data collected from the October sampling event, the well was sampled again for total and dissolved metals on November 26, 2003. At this time, samples were collected at the well head and from a tap located outside the Horn residence. An additional sample was collected from the Horn well at the request of Ohio EPA on August 11, 2004, and the sample was analyzed for total and dissolved thallium. Purging was conducted from the tap, and sampling was conducted from the well head. Following evaluation of all of the data from the Horn well sampling, the groundwater was found to contain no contaminants from the Green I Landfill. The Horn well remains in service and provides water to two homes owned by Mr. Horn adjacent to the landfill on Hunters Ridge Road.

Results of laboratory analysis for the Hamby well indicated that the well was not impacted by VOCs, SVOCs, or metals (total or dissolved). Concentrations of acetone, bis (2-ethylhexyl) phthalate, and di-n-butyl phthalate were detected in the groundwater samples collected from the Hamby water supply well; however, acetone, bis (2-ethylhexyl) phthalate, and di-n-butyl phthalate are considered laboratory contaminants, as acetone was also detected in the trip blank, and bis (2-ethylhexyl) phthalate, and di-n-butyl phthalate are common laboratory contaminants. Concentrations of COCs detected in the Hamby well were below drinking water standards (MCLs). The Hamby

well was decommissioned on October 9, 2003, after Mr. Hamby decided that he would not use it as a water supply well.

2.4 Summary of Site Risks

A baseline risk assessment was conducted to evaluate current and potential future risks to human health and ecological receptors as the result of exposure to contaminants present at the Site. The results demonstrated that the existing contaminants in environmental media pose or potentially pose unacceptable risks and/or hazards to human and ecological receptors sufficient to trigger the need for remedial actions.

The conceptual Site model defines the physical and chemical setting of the Green I Landfill. This conceptual Site model (CSM) combines historical Site information with the data collected during the remedial investigation field activities. Based on the history of the Site and the results of Site investigations, the primary source of contamination is the landfill materials buried at the Site. Primary release mechanisms may include direct release, leaching, erosion, and precipitation and associated runoff. Secondary sources of contamination are impacted soil, leachate seeps, and groundwater migration.

The media directly affected by the landfill wastes buried at the Site are soil and groundwater. Surface runoff is considered a transport medium because precipitation from storm events may have generated episodic overland flow and carried contaminants of potential concern (COPCs) away from the waste areas. Groundwater is a transport medium of concern for COPCs where discharge to seeps may occur. Surface water (*i.e.*, the small off-site pond) may also be affected by the landfill wastes buried at the Site through surface runoff. Dust is considered a potential transport medium, because COPCs in soil may become entrained in fugitive dust.

Transport Pathways

Release mechanisms and transport pathways were evaluated during the RI on a media-by-media basis. Listed below are potential cross-media transfer mechanisms of COPCs:

- COPCs in subsurface soil leaching into groundwater underlying the Site.
- COPCs in surface soil migrating to leachate seeps and ditch sediment along the landfill through surface runoff.
- COPCs in groundwater transport to leachate seeps and ditch along the landfill through groundwater recharge.
- COPCs in surface soil and groundwater transport to the atmosphere via volatilization or fugitive dust emission.
- COPCs in pond sediment and surface water impacted through surface runoff.

Contaminant Migration

The RI results show that VOCs and metals were detected in shallow groundwater, and SVOCs and PCBs were not detected in any of the groundwater samples. The source of VOCs and metals may migrate to shallow groundwater through potential direct release to soil from wastes disposed at the Green I Landfill and further leaching to shallow

groundwater. The source of metals could also be part of the natural background. Both VOCs and metals could transport to a surface water body through seep or groundwater/surface water interphase. In addition, the VOCs could migrate to air through volatilization.

The groundwater and seep water analytical results show that benzene, ethylbenzene, vinyl chloride, arsenic, iron, lead and manganese were detected exceeding either MCLs or PRGs indicating that these chemicals are mobile and could be transported through seep water to a surface water body. Only chloroform, aluminum, antimony, beryllium, cadmium, cobalt, nickel, and thallium were detected in groundwater exceeding MCLs or PRGs. Trichloroethene and 1,4-dichlorobenzene were only detected in seep water, which indicate the potential for transport of these chemicals from wastes in the vadose zone to surface water.

PCBs were detected in seep sediment samples, pond surface water and pond sediment samples. However, PCBs were not detected in any of the soil from borings, groundwater, and seep water samples.

2.4.1 Risks to Human Health

A human health risk assessment for the Green I Landfill was prepared to evaluate potential adverse impacts to human health posed by COPCs in soil, ditch sediment, groundwater, pond sediment, and pond surface water outside of the landfill perimeter (limits of waste) based on data collected during the RI. When Site-specific data are not available, standard defaults were used for the assessment.

Potential adverse impacts to human health are posed by COPCs within the landfill perimeter based on previous investigation results. The risk assessment process combines information on opportunities for exposure to Site-related COPCs with information on their toxic characteristics to generate a quantitative estimate of risk.

Discussion of Risks to an Adult Living on the Site with No Remedial Action
The risk assessment results show that the total cancer risk and total hazard index resulting from exposure to COPCs in soil and groundwater for a current/future adult resident were calculated to be 2.7×10^{-5}. The chemical of concern for this receptor is arsenic detected in soil and the pathway of concern is soil incidental ingestion. The total hazard index is below the target hazard level of 1.

Discussion of Risks to a Child Living on the Site with No Remedial Action
The total cancer risk and total hazard index resulting from exposure to COPCs in soil and groundwater for a current/future child resident were calculated to be 5.3×10^{-5} and 5.1, respectively. Both the total cancer risk and the total hazard index exceeded the target cancer level of 1×10^{-5}, and the target hazard level of 1. The chemicals of concern for this receptor are arsenic and manganese detected in soil and the pathway of concern is soil incidental ingestion.

Lead was evaluated separately. The residential Region 9 Preliminary Remediation goal (PRG) of 400 ppm, based on a child residential scenario, was used to determine the potential risk of lead. The comparison results show that only one sample (ditch sediment sample location SED-3, lead concentration of 838 ppm) exceeds the PRG of 400 ppm. The lead concentrations detected in surface and subsurface soils are all below 400 ppm.

Based on the risk assessment results, the COPCs detected in soil may pose an unacceptable risk and hazard to human health under the current and future residential scenarios. COPC concentrations exceeding the Site-specific background levels are located in limited areas on the former Hamby (now Goodyear) and Hoag (Hunters Woods Subdivision Lot 3) properties. COPCs in the groundwater and pond sediment and surface water do not pose unacceptable risk to human health under the current and future residential or commercial scenarios.

2.4.2 Risks to Ecological Receptors

An Ecological Risk Assessment (ERA) was conducted as part of the RI of the Green I Landfill Site. The ERA was conducted in order to assess potential adverse effects to ecological receptors (non-human, non-domesticated species) at the Site, caused by exposure to chemicals of concern.

Specifically, a Level I scoping ERA determined that based on the history of disposal activities at the Green I Landfill Site and surrounding land use, the Green I Landfill Site has the potential to pose a risk to ecological receptors. Thus, a Level II ERA was conducted. The Level II ERA for the Green I Landfill includes a comparison of Site-specific data to screening benchmark values and the identification of relevant and complete exposure pathways between each source medium of concern and ecologically significant receptors for the potential ecological contaminants of concern.

For the chemicals that exceed the screening values and where a completed exposure pathway exists, a baseline ecological risk assessment was conducted (*i.e.*, Level III ERA). The approach for the Level III ERA consisted of the calculation of Hazard Quotients (HQs) using Site-specific exposure factors, chemical-specific and species-specific toxicity values and representative endpoint species. Upon completion of the ERA for the Green I Landfill Site, the following compounds in various media were determined to pose a potential risk to ecological receptors:

- Surface Soils: arsenic, barium, cadmium, iron, lead, manganese, selenium, thallium, vanadium, zinc, and bis(2-ethylhexyl)phthalate.

3.0 REMEDIAL ACTION OBJECTIVES

The FS was conducted by PARSONS on behalf of Goodyear to define and analyze appropriate remedial alternatives. The study was conducted with Ohio EPA oversight and was approved in December 2007. The RI and FS are the basis for the selection of the Ohio EPA's selected remedial alternative.

As part of the RI/FS process, remedial action objectives (RAOs) were developed in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), codified at 40 CFR Part 300 (1990), as amended, which was promulgated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. §9601 et. seq., as amended, and U.S. EPA guidance. The RAOs are goals that a remedy should achieve in order to ensure the protection of human health and the environment. The goals are designed specifically to mitigate the potential adverse effects of Site contaminants present in the environmental media.

Preliminary Remediation Goals (PRGs) for the protection of human health were established using the acceptable excess lifetime cancer risk and non-cancer hazard goals identified in the DERR Technical Decision Compendium (TDC) document "Human Health Cumulative Carcinogenic Risk and Non-carcinogenic Hazard Goals for DERR Remedial Response and Federal Facility Oversight", dated April 26, 2004, and updated August 21, 2009. These goals are given as 1E-5 (*i.e.*, 1 in 100,000) excess lifetime cancer risk and a hazard index of 1, and were established using the default exposure parameters provided by U.S. EPA or Site-specific information. This TDC document can be found at the Ohio EPA's webpage:

http://www.epa.ohio.gov/portals/30/rules/HH%20Cumulative%20Carc%20Risk%20and%20Non-Carc%20Hazard%20Goals.pdf

The carcinogenic risk level refers to the increased likelihood that someone exposed to chemicals from the Site would develop cancer during his or her lifetime as compared with a person not exposed to the Site. For example, a 1 in 100,000 (equal to 1/100,000 or 1E-5) risk level means that if 100,000 people were chronically exposed to a carcinogen at the specified concentration, then there is a probability of one additional case of cancer in this population. Note that the risks refer only to the incremental risks created by exposure to the chemicals at the Site. They do not include the risks of cancer from other non-Site related factors to which people could be exposed in their lifetime (*e.g.*, smoking, poor diet). Non-carcinogenic hazards are generally expressed in terms of a hazard quotient (HQ) or index (HI), which combines the concentration of chemical exposures with the toxicity of the chemicals (quotient refers to the effects of an individual chemical whereas index refers to the combined effects of all chemicals). A hazard index of 1 represents the exposure at which no harmful effects are expected.

The Remedial Action Objectives (RAOs) detailed below in Table 1 for the Green I Landfill have been developed to address the pathways of exposure to contaminants of potential concern (COPCs) that were identified in the conceptual Site model and

evaluated in the human health and ecological risk assessments. Based on the results of the RI and FS, removal of the wastes from the property poses an unacceptable risk to local residents. Although the Site will continue to be a closed landfill into the foreseeable future, the Site is surrounded by residential properties and therefore, the RAOs have been designed to be protective of this use designation.

TABLE 1 – REMEDIAL ACTION OBJECTIVES

PATHWAY	APPLICABLE COMPOUNDS	TARGET LEVEL[3]	BASIS
Soils – Human Receptors (H1)			
Protect human health by eliminating exposure (*i.e.* direct contact, ingestion and inhalation) to soils with concentrations of chemicals of concern in excess of regulatory or risk based standards. This includes direct contact with the buried waste materials and leachate emanating from the Site.	Arsenic Lead Manganese	11.025 400 1,326.75	Background Region 9 PRG[1] Background
Leachate – Human Receptors (H2)			
Protect human health by eliminating exposure (*i.e.* direct contact, ingestion and inhalation) to leachate with concentrations of chemicals of concern in excess of regulatory or risk based standards.	Benzene Ethylbenzene Vinyl chloride Arsenic Manganese	5 700 2 0.010 0.015	MCL MCL MCL MCL (ppm) MCL (ppm)
Shallow Groundwater – Human Receptors (H3)			
Protect human health by eliminating exposure (*i.e.* ingestion) to shallow groundwater with concentrations of chemicals of concern in excess of regulatory or risk based standards.	Benzene 1,4-DCB[5] Chloroform Ethylbenzene TCE[6] Vinyl chloride Arsenic Beryllium Cadmium Lead Thallium	5 75 0.17 700 5 2 0.010 0.004 0.005 0.015 0.002	MCL MCL Region 9 PRG MCL MCL MCL MCL (ppm) MCL (ppm) MCL (ppm) MCL (ppm) MCL (ppm)
Soils – Ecological Receptors (E1)			
Prevent direct contact with contaminated surface soils and consumption of contaminated food	Arsenic Barium Cadmium Iron Lead Manganese Selenium Thallium Vanadium Zinc BEHP[4]	11.025 100 0.21 30,850 25 1,326.75 0.4 1.1 26.85 71.2 0.05	Background HQ=1 (Robin)[2] Background Background HQ=1 (Robin) Background HQ=1 Background Background Background HQ=1 (Robin)

1. USEPA Region 9 Preliminary Remediation Goal
2. HQ=1 for the most sensitive terrestrial receptor
3. Units of Measure: Surface Soils – ppm; Surface Water or Groundwater - ppb; Sediments – ppm.
4. BEHP = bis(2-ethylhexyl)phthalate
5. 1,4-Dichlorobenzene
6. Trichloroethene

4.0 SUMMARY OF REMEDIAL ALTERNATIVES

A total of 18 remedial alternatives were considered in the FS. A brief description of the major features of each of the remedial alternatives follows. More detailed information about these alternatives can be found in the FS. For comparison a "No Action" alternative is included in each of the sets of remedial alternatives. This No Action alternative is the basis for comparison of the other options.

The following descriptions were taken from the approved Feasibility Study for the Site and were presented in the original February 2010 Preferred Plan. Ohio EPA's selected remedial alternative in this Amended Decision Document includes modifications based on the ORC 3734.02(G) Exemption approved on July 2, 2012, and Ohio EPA risk management decisions (*i.e.*, off-site pond surface water and sediments).

4.1 Landfill Capping Alternatives

4.1.1 General Description of Alternatives

Alternative 1 No Action.
Alternative 2 Soil Cover (1 foot) with Underlying Geotextile Fabric.
Alternative 3 Soil Cover (2 feet).
Alternative 4 Dual Layer Low Permeability Cap.
Alternative 5 Single Layer Low Permeability Cap.
Alternative 6 Single Layer Low Permeability Cap over Existing Soil Alternative.

Please note that Alternative 6 was included in the original February 2010 Preferred Plan as a contingent remedy for Alternatives 2 and 3. Alternative 6, as described in the original Preferred Plan, could only be implemented as a stand-alone remedy with the issuance of an exemption pursuant to ORC 3734.02(G). Given that an exemption has been approved by Ohio EPA, Alternative 6 is now considered a viable remedial option and is presented as one of the remedial alternatives in this Amended Decision Document.

A brief description of the individual alternatives is presented in the subsequent sections. All of the landfill cap alternatives listed above, except Alternative 1 (No Action), include the following components.

Landfill stability along slopes will be addressed as necessary. Costs for slope stabilization are incorporated into the costs associated with Landfill Capping Alternatives 2-6. The method of addressing slope instability will be determined as part of a pre-design investigation and evaluation. Unstable slope areas will be buttressed as necessary. It is anticipated that landfill waste will not be re-graded and relocated for slope stability improvement. Limited relocation of a small amount of landfill waste located on adjacent properties will be performed as necessary to consolidate all of the landfill waste within the limits of the property owned by Goodyear. Surface drainage will be controlled to divert as much runoff as possible away from the landfill. In addition,

surface drainage on the landfill will be controlled to minimize erosion potential. Roads and conveyances will be designed to access the landfill, but not reduce the effectiveness of the alternative.

Institutional controls (*i.e.,* land use restrictions) documented in an environmental covenant in accordance with Ohio's enactment of the *Uniform Environmental Covenants Act (UECA),* Ohio Revised Code Section 5301.80 *et seq.* (effective December 20, 2004), will be recorded for the landfill property containing waste. The restrictions will prohibit the use of groundwater for potable and/or agricultural purposes. The restrictions will also prohibit building or placing any permanently occupied structures on the landfill proper.

Trench drains will be installed at the existing leachate seeps to control the seeps. Leachate collection and treatment options are presented in Section 4.4. The trench drains will be monitored during post closure inspections to determine if the seeps persist after placement of the landfill soil cover to determine the need for implementation of one of the leachate treatment alternatives 2 through 5.

The soil cover will be planted with a vegetative mix (*e.g.,* prairie mix) suitable for the Site. Gates will be installed at the access roads and fences extended approximately 20 feet on each side to limit access to the property. Warning signs will be installed around the landfill as deemed appropriate during remedial activities. Fencing around the entire landfill is not necessary to protect human health or the environment. The gates will comply with the requirement of OAC Rule 3745-27-11(H)(7) to block the access road from unauthorized entry to the Site.

One (1) additional intermediate zone monitoring well will be added to the existing monitoring well network on the south east side of the landfill to comply with the condition stated in the approval letter for the RI Report. This monitoring well network will be monitored in accordance with an approved groundwater monitoring plan to be developed as part of the landfill operation and maintenance (O&M) plan.

Any runoff from construction operations on the landfill will need to be diverted away from the pond or otherwise ensure that the water is not contaminated. The leachate trench drains will be installed at these seeps prior to cleanup of the seep drainage channels. Temporary measures to collect seep water generated during construction will be incorporated as part of the construction package.

4.1.2. Alternative 2 – Soil Cover (1 Foot) with Underlying Geotextile Fabric

With this alternative, a soil cover coupled with a geotextile fabric would be employed at the Site to encompass the impacted unconsolidated material. This design provides adequate soil cover for growth of a vegetative cover while the geotextile fabric prevents worms and other prey species from reaching the contaminated soil at the landfill. With this alternative, the Site would not require mowing. The establishment of trees and shrubs would also be desirable. Plans to plant trees (evergreens) at about the time of the five-year review are included in the O&M cost. The transport of approximately

19,600 cubic yards of clean cover soil to the Site would also be required. Approximately 130 rolls of geotextile fabric would also have to be transported to the Site.

4.1.3. Alternative 3 – Soil Cover (2 Feet)

With this alternative, a two foot thick soil cover would be employed at the Site to encompass the impacted unconsolidated material. No geotextile would be utilized with this alternative. The two foot cover is considered adequate on a risk basis to provide protection against direct contact with the contaminated soil at the landfill from worms and other prey species. With this alternative, the Site would not require mowing. The establishment of trees and shrubs would also be desirable. Plans to plant trees (evergreens) at about the time of the five-year review are included in the O&M cost. The transport of approximately 39,200 cubic yards of clean cover soil to the Site would be required.

4.1.4. Alternative 4 – Dual Layer Low Permeability Cap:

With this alternative, a dual layer low permeability cap would be employed at the Site to encompass the impacted unconsolidated material. The cap would include a gas collection layer placed over the entire impacted unconsolidated area. This could be constructed of sand or could be a geocomposite layer. A low permeability 18 inch thick recompacted clay layer (1×10^{-6} cm/sec) or a geosynthetic clay layer would then overlay the gas collection layer. A second low permeability layer (40 mil high-density polyethylene (HDPE) liner) would be installed overlying the clay layer. A drainage layer consisting of at least 12 inches of soil or an equivalent geosynthetic drainage layer (with associated geosynthetic fabric) would overlay the HDPE liner. A protection layer, at least 18 inches thick, would then cover the drainage layer followed by six inches of topsoil.

This Alternative would require the transport of the following materials to the Site:

- approximately 19,600 cubic yards of clean sand or 528,000 square feet geocomposite for a gas collection layer,
- approximately 29,400 cubic yards of clean clay (1×10^{-6} permeability) for a low permeability layer,
- approximately 29,400 cubic yards of clean soil for a protective cover soil layer,
- approximately 9,800 cubic yards of clean soil for a topsoil layer,
- approximately 130 rolls of geosynthetic material for a second low permeability layer, and
- approximately 130 rolls of geosynthetic drainage material (with associated geosynthetic fabric) for a drainage layer.

4.1.5. Alternative 5 – Single Layer Low Permeability Cap

With this alternative, a single layer low permeability cap would be employed at the Site to encompass the impacted unconsolidated material. The cap would include a low permeability layer (40 mil high-density polyethylene (HDPE) liner) and passive gas venting. A drainage layer consisting of at least 12 inches of soil, an equivalent geosynthetic drainage layer (with associated geosynthetic fabric), or some other equivalent drainage layer design would overlay the HDPE liner. A protection cover soil

layer, at least 18 inches thick, would then cover the drainage layer followed by 6 inches of topsoil.
This Alternative would require the transport of the following materials to the Site:

- approximately 29,400 cubic yards of clean soil for a protective cover soil layer,
- approximately 9,800 cubic yards of clean soil for a topsoil layer,
- approximately 130 rolls of geosynthetic material for a low permeability layer, and
- approximately 130 rolls of geosynthetic drainage material (with associated geosynthetic fabric) for a drainage layer.

4.1.6 Alternative 6 – Single Layer Low Permeability Cap Over Existing Soil

Alternative 6, a single layer low permeability cap, was included in the original Preferred Plan to be employed at the Site as a contingent remedial alternative if either Alternative 2 or 3 was utilized and was unsuccessful. This alternative did not meet ARARs in the original Preferred Plan and could not be selected. With the issuance of the 02(G) exemption by Ohio EPA, a demonstration to the satisfaction of the director was made that this cap design will be technically equivalent and will not adversely affect public health, safety and the environment, based on the Site conditions. This Alternative, with the granting of the 02(G) exemption, now meets ARARs. Therefore, Alternative 6 is being carried forward in this Amended Decision Document as a viable remedial alternative.

The topsoil from the existing cover would be removed for reuse and the following cap barrier would be installed (same as in Alternative 5). The cap system would include passive gas vents and a low permeability layer (40 mil high-density polyethylene (HDPE) liner). A drainage layer consisting of at least 12 inches of soil, and equivalent geosynthetic drainage layer (with associated geosynthetic fabric), or some other equivalent drainage layer design would overlay the HDPE liner. A protection cover soil layer, at least 18 inches thick, would then cover the drainage layer followed by six (6) inches of topsoil.

This Alternative would require the transport of the following materials to the Site:

- approximately 29,400 cubic yards of clean soil for a protective cover soil layer, (if Alternative 3 was implemented, some of the protective cover soil may be used from soil removed from the existing cap depending on construction economics),
- approximately 9,800 cubic yards of clean soil for a topsoil layer (use existing soil to be removed and replaced),
- approximately 130 rolls of geosynthetic material for a low permeability layer, and
- approximately 130 rolls of geosynthetic drainage material (with associated geosynthetic fabric) for a drainage layer.

4.2 Off-Site Pond Surface Water

The following descriptions from the Feasibility Study Report are included for continuity between the original and this Amended Decision Document. However, based on information presented by Goodyear in their 2010 ERAC appeal, and an Ohio EPA review of the risks associated with the off-Site pond surface water, Ohio EPA has concluded that no action is necessary for the off-Site pond surface water.

4.2.1 General Description of Alternatives

Alternative 1 No Action.
Alternative 2 Pre-filtering, Carbon Adsorption, and Discharge to Surface.
Alternative 3 Pre-filtering, Carbon Adsorption, and Transport and Disposal at Local WWTP.
Alternative 4 Transport and Disposal at Treatment and Disposal Facility.

Alternatives 2 and 3 use the following similar components for the pre-filtering and carbon adsorption parts of the remedies:

The pre-filtering and carbon adsorption and treatment would be located on-Site and would be able to remediate the COCs in water at the current concentrations as well as the anticipated volume of water. At a minimum, two carbon vessels would be linked in series. Periodic testing would be conducted of the influent, in between the carbon vessels, and prior to discharge to the surface to ensure compliance with applicable standards. Testing would be conducted on the carbon media and filters to determine how to dispose of them properly. The RI found only PCBs, at levels just above the drinking water standards. The pre-filtering, carbon adsorption treatment system would remove PCBs and the system would be designed to meet state water quality standards for the surface water discharge.

The estimated volume of water to be treated is 250,000 gallons. Sizing of the pre-filters and the carbon filters would depend on the length of time to be taken to treat this water. This would be determined as part of the design.

4.2.2 Alternative 2 – Pre-Filtering, Carbon Adsorption, and Discharge to Surface

With this alternative, water contained within the confines of the off-Site pond would be evacuated and treated on-Site using carbon to adsorb COCs prior to discharge to the surface. The water would be pretreated using inline filters to remove suspended materials prior to entering the carbon treatment system. The suspended material filtration would prolong the active use of the carbon media and allow for sediment free discharge of water to the surface.

4.2.3 Alternative 3 – Pre-Filtering, Carbon Adsorption, and Transport and Disposal at Local WWTP

With this alternative, water contained within the confines of the off-Site pond would be evacuated and treated on-Site using carbon to adsorb COCs prior to transport and disposal at the local WWTP in Logan. The water would be pretreated using inline filters to remove suspended materials prior to entering the carbon treatment system. The suspended material filtration would prolong the active use of the carbon media and allow for sediment free water to be collected, transported, and discharged at the local WWTP. In order to transport the water, access to the pond for the transport vehicles would need to be created and maintained.

4.2.4 Alternative 4 – Transport and Disposal at Treatment and Disposal Facility

With this alternative, water contained within the confines of the off-Site pond would be evacuated and transported to an off-Site treatment and disposal facility (other than the local WWTP) for treatment and disposal without requiring pre-treatment.

Given the low concentrations of sediment and surface water contaminants, the limited size of the water body (~0.11 acres) and the elimination of future contaminant loadings to the pond (due to future landfill capping), Ohio EPA concludes that no further action with regard to the off-Site pond surface water or sediment is warranted.

4.3 Off-Site Pond Sediments

The following descriptions from the Feasibility Study Report are included for continuity between the original and this Amended Decision Document. However, based on information presented by Goodyear in their 2010 ERAC appeal, and an Ohio EPA review of the risks associated with the off-Site pond sediments, Ohio EPA has concluded that no action is necessary for the off-Site pond sediments.

4.3.1 General Description of Alternatives

Alternative 1	No Action.
Alternative 2	Treat Sediment *In Situ* and Leave In Place.
Alternative 3	Dewater Sediment *In Situ* and Place Under Green I Landfill Cover.
Alternative 4	Treat Sediment *In Situ,* Remove, Transport and Dispose at Sanitary Landfill.
Alternative 5	Leave Sediment In Place, Dewater, Cover, and Eliminate Pond.

4.3.2 Alternative 2 – Treat Sediment In-Situ and Leave in Place

After the seeps are eliminated and the water in the pond is evacuated, the remaining sediment would be treated (solidified) in place using Portland cement and/or other fixing agents. The solidified material would be left in place and the Pond and surrounding area graded to eliminate the Pond and prevent the flow of surface water from the surrounding area to within the former Pond area.

Some pre-design testing would be required to determine the optimum solidification agent and mixing ratio. The optimum reagent to waste mix ratio is typically around 0.25

for contaminated soil. However, this ratio can vary anywhere from 0.1 to 2.0 depending on the contaminants present and the initial moisture content of the waste.

Post-treatment testing would consist of both chemical and physical tests. Required chemical testing often consists of performing the Toxicity Characteristic Leaching Procedure (TCLP) and chemically analyzing the extract. The physical parameters to be tested would be determined during remedial design and would likely include unconfined compressive strength. As there is only an estimated 600 cubic yards of sediment to be treated, only one (1) post-treatment test would be necessary to confirm the sediment is solidified in accordance with the design specifications.

4.3.3 Alternative 3 – Dewater Sediment In-Situ and Place Under Green I Landfill Cap

After evacuation of the water in the pond, the remaining sediment would be dewatered in place using drying agents. The material would then be excavated, transported to the Green I Landfill, and placed under the soil cover or cap. The Pond area could be graded to remain as a pond or re-graded to eliminate the containment of surface water.

4.3.4 Alternative 4 – Treat Sediment In-Situ, Remove, Transport and Dispose at Sanitary Landfill

With this alternative, after the seeps are eliminated and the water in the pond is evacuated, the remaining sediment would be treated (solidified) in place using Portland cement and/or other fixing agents. The materials would then be excavated and transported to the sanitary landfill for disposal. Alternatively, the sediment could be excavated, transported, and solidified at the sanitary landfill. This Alternative would require lined trucks to ensure that water does not seep out of the sediment onto the roadway during transport. The Pond area could be graded to remain as a pond or re-graded to eliminate the containment of surface water.

4.3.5 Alternative 5 – Leave Sediment In Place, Dewater, Cover, and Eliminate Pond

After the seeps are eliminated and the water in the pond is evacuated, the remaining sediment would be dewatered, left in place, and covered with a suitable soil material. The area would need to be regraded as necessary to provide for surface drainage to be re-routed away from the former pond. Pre-design testing may be required to determine if the sediment can be dried in a reasonable time period without the addition of drying agents to provide sufficient structural strength for placement of a suitable cover soil material.

Given the low concentrations of sediment and surface water contaminants, the limited size of the water body (~0.11 acres) and the elimination of future contaminant loadings to the pond (due to future landfill capping), Ohio EPA concludes that no further action with regard to the off-Site pond surface water and sediment is warranted.

4.4 Leachate Collection

4.4.1 General Description of Alternatives

Alternative 1 No Action.
Alternative 2 Collect Leachate and Treat On-Site in Constructed Wetlands.
Alternative 3 Collect Leachate and Subsurface Recharge within Landfill.
Alternative 4 Collect Leachate, Transport, and Dispose at Local WWTP.
Alternative 5 Collect Leachate, Transport and Dispose at Treatment and Disposal Facility
Alternative 6 Leachate Collection and Holding Tank System.

4.4.2 Alternative 2 – Collect Leachate and Treat On-Site in Constructed Wetlands

With this alternative, a leachate collection piping system connecting the leachate trench drains would be installed outside of the limits of the cap to transport the leachate to the constructed treatment wetland. The piping would be double walled to protect against leakage and would be either gravity or pumped as required (to be determined during design). The design flow for the leachate would be based on an evaluation of the amount of leachate seepage in the leachate trench drains. A pre-design study may be necessary to evaluate this flow.

The constructed treatment wetlands would be designed based on an analysis of the leachate in the trench drains. If any seeps that exist after construction of the cap resemble in constituency the nine leachate seeps sampled as part of the RI, the constructed treatment wetland would need to treat the water for VOCs, SVOCs, and metals in order to reduce the contaminant load to levels that would meet acceptable state water quality standards for surface water discharge. The configuration of the constructed treatment wetland and the selection of components included in the constructed treatment wetland would be determined during the design. The components of the constructed treatment wetland would need to be selected so that the discharge would be able to meet NPDES permit requirements.

4.4.3 Alternative 3 – Collect Leachate and Subsurface Recharge in Landfill

With this alternative, a leachate collection piping system connecting the leachate trench drains would be installed outside of the limits of the cap to transport the leachate to a holding tank from which the recharge system would pump the leachate into the waste below the cap. The piping would be double walled to protect against leakage and would be either gravity or pumped as required (to be determined during design). The design flow for the leachate would be based on an evaluation of the amount of leachate seepage in the leachate trench drains. A pre-design study may be necessary to evaluate this flow. The holding tank would be provided with double containment.

4.4.4 Alternative 4 – Collect Leachate, Transport, and Dispose at Local WWTP

With this alternative, a leachate collection piping system connecting the leachate trench drains would be installed outside of the limits of the cap to transport the leachate to the holding tank. An agreement would need to be made with the local WWTP and a

transport company for transport and disposal of the leachate. The piping would be double walled to protect against leakage and would be either gravity-fed or pumped as determined in design. The design flow for the leachate would be based on an evaluation of the amount of leachate seepage in the leachate trench drains. A pre-design study may be necessary to evaluate this flow, which would be used for sizing the piping, tanks and pumps. The holding tank would be provided with double containment.

4.4.5 Alternative 5 – Collect Leachate, Transport, and Dispose at Treatment and Disposal Facility

With this alternative, a collection system and the holding tanks would need to be designed and an agreement made with the TSD and a transport company.

4.4.6 Alternative 6 – Leachate Collection and Temporary Holding Tank System

With this alternative, as part of the cap construction, a leachate collection system with a holding tank would be installed to collect and contain the leachate for transport and disposal. If leachate production is significant and is not greatly reduced shortly after cap installation, one of the other leachate handling options may be implemented such as the installation of a constructed treatment wetland. Collection system and holding tank specifications would need to be established during design.

Ohio EPA anticipates that leachate generation rates would decrease significantly in the first five years following implementation of the selected remedy. A review of the leachate generation rates and analytical data would be conducted to determine the quality and quantity of the leachate and whether another leachate alternative should be considered.

5.0 COMPARISON AND EVALUATION OF ALTERNATIVES

5.1 Evaluation Criteria

In selecting a remedy for a contaminated site, Ohio EPA considers the following eight evaluation criteria as outlined in U.S. EPA's NCP promulgated under CERCLA (40 CFR 300.430):

1. Overall protection of human health and the environment - Remedial alternatives shall be evaluated to determine whether they can adequately protect human health and the environment, in both the short- and long-term, from unacceptable risks posed by hazardous substances, pollutants, or contaminants present at the site.

2. Compliance with all applicable or relevant and appropriate requirements (ARARs) - Remedial alternatives shall be evaluated to determine whether a remedy will meet all of the applicable or relevant and appropriate requirements of state and federal environmental laws.

3. Long-term effectiveness and permanence - Remedial alternatives shall be evaluated to determine the ability of a remedy to maintain reliable protection of human health and the environment over time once pollution has been abated and RAOs have been met. This includes assessment of the residual risks remaining from untreated wastes, and the adequacy and reliability of controls such as containment systems and institutional controls (*i.e.*, environmental covenant).

4. Reduction of toxicity, mobility, or volume through treatment - Remedial alternatives shall be evaluated to determine the degree to which recycling or treatment are employed to reduce toxicity, mobility, or volume, including how treatment is used to address the principal threats posed by the site.

5. Short-term effectiveness - Remedial alternatives shall be evaluated to determine the following: (1) short-term risks that might be posed to the community during implementation of an alternative; (2) potential impacts on workers during remedial action and the effectiveness and reliability of protective measures; (3) potential environmental impacts of the remedial action and the effectiveness and reliability of mitigative measures during implementation; and (4) time until protection is achieved.

6. Implementability - Remedial alternatives shall be evaluated to determine the ease or difficulty of implementation and shall include the following as appropriate: (1) technical difficulties and unknowns associated with the construction and operation of a technology, the reliability of the technology, ease of undertaking additional remedial actions, and the ability to monitor the effectiveness of the remedy; (2) administrative feasibility, including activities needed to coordinate with other offices and agencies and the ability and time required to obtain any

necessary approvals and permits from other agencies (for off-site actions); and (3) availability of services and materials, including the availability of adequate off-site treatment, storage capacity, and disposal capacity and services; the availability of necessary equipment and specialists, and provisions to ensure any necessary additional resources; the availability of services and materials; and the availability of prospective technologies.

7. Cost - Remedial alternatives shall evaluate costs and shall include the following: (1) capital costs, including both direct and indirect costs; (2) annual operation and maintenance costs (O&M); and (3) net present value of capital and O&M costs. The cost estimates include only the direct costs of implementing an alternative at the site and do not include other costs, such as damage to human health or the environment associated with an alternative. The cost estimates are based on figures provided by the Feasibility Study.

8. Community acceptance - Remedial alternatives shall be evaluated to determine which of their components interested persons in the community support, have reservations about, or oppose. This assessment was completed upon review of comments received during the public comment period on the 2013 Amended Preferred Plan.

Evaluation Criteria 1 and 2 are threshold criteria required for acceptance of an alternative that has accomplished the goal of protecting human health and the environment and has complied with the law. Any acceptable remedy must comply with both of these criteria. Evaluation Criteria 3 through 7 are the balancing criteria used to select the best remedial alternative(s) identified in the Amended Preferred Plan. Evaluation Criteria 8, community acceptance, is a modifying criterion that will be evaluated through public comments on the alternatives received during the comment period.

5.2 Analysis of Evaluation Criteria

This section examines how each of the evaluation criteria in Section 5.1 is applied to each of the remedial alternatives found in Section 4.0 and compares how the alternatives achieve the criteria.

5.2.1 Overall Protection of Human Health and the Environment

Evaluation of the overall protectiveness of the alternatives focused on whether each alternative achieves adequate protection of human health and the environment and identifies how site risks posed through each pathway being addressed are eliminated, reduced or controlled by the alternative. This evaluation also includes consideration of whether the alternative poses any unacceptable short-term or cross-media impacts.

Landfill Capping Alternatives

Alternative 6 - Single Layer Low Permeability Cap over Existing Soil Alternative: This alternative combines alternatives 2 or 3 with alternative 5. This alternative has been shown to be technically equivalent to Alternative 4, is able to be constructed, it takes advantage of low permeability soils that are already present at the Site, is cost effective and will be protective of human health and the environment. Alternative 6 would effectively address the concerns outlined in RAO H1 when constructed according to an Ohio EPA approved design.

Alternative 1 – No Action: This alternative would not provide additional protection of human health and the environment and would continue to allow direct contact with leachate and the potential for direct contact with waste materials. This alternative would not prevent or retard the infiltration of surface water or precipitation and thus would not prevent or reduce the generation of leachate.

Alternative 2 – Soil Cover (1 foot) with Underlying Geotextile Fabric: This alternative would provide some additional protection as a physical barrier is placed to prevent soil dwelling species and some burrowing animals from coming into contact with buried waste. This alternative would not prevent or retard the infiltration of surface water or precipitation and thus would not prevent or reduce the generation of leachate. This alternative, as described in the FS, would not require mowing and tree planting would be considered at the first Five Year Review. By not mowing, burrowing animal activity is more difficult to observe and the planting of trees in the cap may permit the unearthing of waste if a tree were to be uprooted.

Alternative 3 - Soil Cover (2 feet): This alternative is similar to the no action alternative in that it would rely on soil to become a barrier to prevent contact with waste materials. This alternative would not prevent or retard the infiltration of surface water or precipitation and thus would not prevent or reduce the generation of leachate. By not mowing, burrowing animal activity is more difficult to observe and the planting of trees in the cap may permit the unearthing of waste if a tree were to be uprooted.

Alternative 4 - Dual Layer Low Permeability Cap is the only alternative presented in the FS that would incorporate the use of compacted clay and a plastic liner, which would provide a solid physical barrier that would prevent contact by humans and other species with contaminated landfill materials. The combination of these two layers would provide the level of protection required for modern solid waste landfills. This alternative would provide two barriers (liner and clay) to prevent infiltration of surface water and precipitation which would reduce the amount of leachate production. FS Alternative 4 would effectively address the concerns outlined in RAO H1.

Alternative 5 - Single layer low permeability cap. This alternative significantly improves the level of protection of human health and the environment when compared with the no action alternative and soil only alternatives by virtue of the

addition of a plastic liner. This alternative is not as protective as Alternative 4 since the thickness of the cap is less and the potential for the plastic to leak is increased due to the absence of the clay layer.

Leachate Collection and Management

Ohio EPA anticipates that leachate generation rates will decrease significantly in the first five years following implementation of the selected remedy. Therefore implementation of Alternative 6 (leachate collection and holding tank system) will be implemented until leachate volume and chemical analysis can be monitored following cap construction. A review of the leachate generation rates and analytical data will be conducted annually during the first five years to determine the quality and quantity of the leachate and whether a change to Alternative 2 (treatment wetlands), Alternative 4 (collection and disposal at WWTP) or Alternative 5 (collection and disposal at non-WWTP treatment facility) is appropriate. The final implementation of one of these alternatives is anticipated to eliminate the pathways described by RAO H1 and E1. Interim measures are anticipated to be protective of human health and the environment.

Alternative 6 – Leachate Collection and Holding Tank System: This alternative is a component of what would be required to implement Alternative 4 and Alternative 5, if either were selected. As presented in the FS, this alternative is a short-term alternative until leachate generation rates stabilized, an evaluation of the chemical makeup could be conducted, and one of the other alternatives could be implemented as a permanent solution. This alternative, when properly implemented and monitored, is considered protective of human health and the environment and is Ohio EPA's preferred alternative for leachate management.

Alternative 1 – No Action: This alternative would continue to allow leachate to be produced resulting in on-Site and off-site exposures to contaminants of concern.

Alternative 2 – Collect Leachate and Treat On-Site in Constructed Wetlands: This alternative may be viable at some point in the future; however, the implementation of this remedial alternative would require further consideration of the volume and quality of the leachate produced to determine if a seasonally active wetland would be a viable alternative for treating this wastewater. Some contaminants of concern, for example PCBs, may make this alternative technically impractical. In addition, an NPDES permit may be required before this remedy could be utilized. Until the design and basis for the design are better understood, this alternative is not viable as it may not be protective of human health and the environment.

Alternative 3 – Collect Leachate and Subsurface Recharge within Landfill: Since the Green I Landfill was constructed without a bottom liner and leachate collection system, this alternative is not appropriate. Recirculating leachate has been shown to increase decomposition in municipal solid waste landfills; however, these facilities were constructed in such a manner as to ensure the containment of the

leachate. This alternative would not be protective of human health and the environment.

Alternative 4 – Collect Leachate, Transport, and Dispose at Local WWTP: This alternative would provide for both capture and appropriate treatment of the leachate. Given the contaminants of concern, a municipal waste water treatment plant (WWTP) would likely be able to accept this leachate. Additional testing, post cap installation, would be required to determine the characteristics of the leachate. The WWTP would also need to agree to accept this material. This alternative could be protective of human health and the environment, depending on the quality of the leachate generated at the Green I Landfill.

Alternative 5 – Collect Leachate, Transport and Dispose at Treatment and Disposal Facility: This alternative would retain all of the benefits of Alternative 4, but would result in disposal of the leachate at a facility permitted to handle chemically contaminated water. This alternative would be protective of human health and the environment.

5.2.2 Compliance with ARARs

Landfill Capping Alternatives

Alternative 4 – Dual Layer Low Permeability Cap was the only alternative in the original Preferred Plan that, at that time, would have been fully compliant with the applicable, relevant and appropriate rules and laws (ARARs) for construction of a solid waste landfill cap in Ohio as described in the Ohio Administrative Code Rule 3745-27-08. Accordingly, Alternatives 1, 2, 3, 5 and 6, at the time the original Preferred Plan was issued, were not ARAR compliant. With the issuance of the 02(G) Exemption, Alternative 6 is a remedial alternative that is protective of human health and the environment.

Leachate Management Alternatives

All of the leachate management options, except Alternative 1 – No Action, would be ARAR compliant once the leachate was transported to an appropriate disposal facility. Alternative 2 – Treatment Wetlands, would be ARAR compliant if an NPDES permit was issued for the discharge to such treatment wetlands.

5.2.3 Long-Term Effectiveness and Permanence

The landfill capping alternatives were evaluated, in part, on their ability to divert or prevent infiltration of water into the waste in an effort to reduce the generation of leachate. All of the capping options presented in the FS would be permanent if properly maintained. However, Alternatives 4, 5 and 6 would incorporate a plastic liner component (*e.g.,* 40 mil HDPE) which would provide the greatest measure of effectiveness and permanence. Alternative 6 also utilizes existing low permeability clay soils which would serve as a second layer of protection against infiltration. Capping of

the landfill will result in a long-term and eventually permanent solution for the leachate issues.

5.2.4 Reduction of Toxicity, Mobility or Volume by Treatment

Under Ohio EPA's preferred alternatives for landfill capping, no treatment or reduction in volume will occur. However, a reduction in the mobility of the contaminants found in the sediments and the landfill waste will be achieved through the construction of the single layer low permeability cap.

Through implementation of the preferred landfill cap alternative, Ohio EPA anticipates a significant reduction in annual leachate volume by preventing infiltration of surface water and precipitation. In addition, leachate that may be generated will be treated off-Site at either a treatment and disposal facility or a wastewater treatment plant until the first five year review is conducted, at which point leachate volume and quality can be evaluated. Following the evaluation, leachate volume and quality may allow for on-Site treatment through constructed wetlands.

5.2.5 Short-Term Effectiveness

With the exception of the no action alternative, all of the landfill capping alternatives (including Ohio EPA's preferred alternative) for the landfill cap would increase dust production in the short term due to construction activities. Construction activities which disturb the existing cap would have the potential to increase infiltration of surface water and increase erosion which could expose waste materials if not carefully monitored. However, the re-grading of low permeability soil layers would increase the density of the soil, reducing the potential for erosion. The installation of a flexible membrane liner would protect the underlying soils from erosion.

Following installation of the leachate collection system and holding tank(s), immediate gains in protectiveness would be realized as the leachate would no longer be releasing from the Site or available for direct contact exposure.

5.2.6 Implementability

All of Ohio EPA's preferred alternatives are constructible using readily available construction equipment and methods. The preferred leachate management system is constructible. The collected leachate will require chemical analysis in order to be taken off-Site for treatment at a POTW or industrial WWTP. No additional permits or waivers are anticipated to be needed for the implementation of any preferred alternative. The responsible party(ies) will need to develop and record the environmental covenant for the Site.

5.2.7 Cost

The cost estimates produced for all alternatives are discussed in each section and the cap system costs are also described in Table 2 found after Section 5.2.8. The costs of Ohio EPA's preferred alternatives are presented in the following text.

Preferred Landfill Capping Alternative
The cost for the pre-design investigation, design, and construction oversight are included with the construction costs. The cost of implementing landfill capping Alternative 6 is $2,773,225. This also includes the cost for installation of the additional monitoring well required in the approval of the RI Report.

The cost estimate for O&M for 30 years based on a 7% interest rate is a present worth of $1,020,000 for Alternative 6.

Preferred Leachate Collection and Management
The cost for this system is based on a leachate system to collect, convey, and hold 50,000 gallons. The estimated cost for installation of the leachate collection and the leachate storage system is $506,000. Additional operation and maintenance costs may be incurred based on the amount of leachate requiring disposal. Since this cost is highly variable and dependent on the volume and chemical characteristics, the costs associated with leachate management have not been included for comparison; however, leachate disposal costs were estimated by GE and Goodyear in June 2013 at $0.18 to $0.25 per gallon produced.

5.2.8 Community Acceptance

Ohio EPA received comments from interested parties at the public meeting held February 12, 2014, at the Ohio EPA Southeast District Office and during the public comment period, which ended February 21, 2014. Those comments and Ohio EPA's responses are included in Section 8.0 (Responsiveness Summary) of this Amended Decision Document.

5.3 Summary of Evaluation Criteria

Table 2: Evaluation of Remedial Alternatives for the Green I Landfill Cap

Evaluation Criteria	*Alternative 1*	*Alternative 2*	*Alternative 3*	*Alternative 4*	*Alternative 5*	*Alternative 6*
(1) Overall protection of human health and the environment	☐	☐	☐	■	■	■
(2) Compliance with ARARs	☐	☐	☐	■	◘	◘
(3) Long term effectiveness and permanence	☐	◘	◘	■	■	■
(4) Reduction of toxicity, mobility or volume through treatment	☐	☐	☐	■	■	■
(5) Short term effectiveness	☐	■	■	■	■	■
(6) Implementability	■	■	■	■	■	■
(7a) Capital Cost	—	*$2,073,000*	*$2,448,000*	*$4,036,000*	*$3,467,000*	*$2,773,225*
(7b) O&M Cost (30 year)	—	*$666,000*	*$666,000*	*$1,020,000*	*$1,020,000*	*$1,020,000*
(8) Community acceptance	*Community acceptance of the preferred alternatives will be evaluated after the public comment period.*					

■ *Fully meets criteria* ◘ *Partially meets criteria* ☐ *Does not meet criteria*

6.0 OHIO EPA'S SELECTED ALTERNATIVES

Ohio EPA's selected remedial alternative includes the construction of a single layer low permeability landfill cap (Alternative 6) along with passive gas vents and leachate collection piping, installed to direct leachate to a holding tank (Alternative 6).

The selected alternative for capping uses a plastic liner (40 mil HDPE) and low permeability clay soils already found at the Site to prevent infiltration of surface water and precipitation. The use of these technologies at Green I Landfill is appropriate for the long-term protection of human health and the environment, and meets ARARs[3]. The single layer cap design combined with the physical setting of this landfill is anticipated to significantly reduce the amount of leachate produced by Green I Landfill.

The estimated cost of $2,773,225 for Alternative 6 was provided to Ohio EPA by Goodyear after the approval of the ORC 3734.02(G) Exemption.

Green I Landfill is located in a rural area with increasing residential development. The environmental covenant for the property will restrict groundwater usage and future development of the property and will be enforceable by Ohio EPA. This rural area is home to a variety of recreational uses including hunting and hiking. Property lines are not always clear to persons who are unfamiliar with the local area. Signage will be posted along the property border as part of this remedial action to deter trespassers from accessing this property.

When implemented, the preferred alternative selected by Ohio EPA will enable the long-term protection of groundwater and prevention of direct exposure to contaminants. The estimated total cost of the Ohio EPA selected preferred alternative is $3,279,225.

Based on information presently available, it is Ohio EPA's current judgment that the selected remedial alternative best satisfies the criteria listed in Table 2 Evaluation of Site Remedial Alternatives. The elements of the selected remedial alternative are as follows:

6.1 Single Layer Low Permeability Cap Installation and O&M:

This component will include a 40 mil HDPE liner and low permeability clay soils to prevent infiltration of surface water from snowmelt, rain, etc., and will be designed to meet appropriate design standards for a landfill cap set out in Ohio EPA's rules and include passive gas vents, with the exception of those requirements that were exempted through the ORC 3734.02(G) exemption, which found that the alternative capping proposal was unlikely to affect human health, safety or the environment and would be as protective as a dual layer cap

[3] The originally selected alternative (Alternative 4) is consistent with what is required to be constructed on a landfill closed today. The waste buried in a newly closed landfill will decompose and compact and the surface of the landfill will settle. Since Green I Landfill closed in 1974, settling of the landfill waste has already occurred. Therefore, the preferred remedy will allow for the permanent entombment of the waste and prevent infiltration.

at this Site. The actual thickness of the cap in this preferred alternative also establishes a protective barrier to further prevent contact with the waste material.

To provide for long-term operation and maintenance (O&M) of the cap and associated leachate collection activities, an O&M Plan will be developed for approval by Ohio EPA. The cap will be inspected on an annual basis following construction by Ohio EPA and any conditions that will affect the performance of the cap system will be corrected by the responsible parties. The implementation of this remedial action will eliminate the pathways described by RAO H1 and E1.

Performance Standard: The success of this cap will be evaluated after installation and an Ohio EPA inspection, following Ohio EPA's approval of the final design.

Performance Standard: Long-term O&M of the cap will be considered successful if Ohio EPA approves an O&M Plan and the cap passes periodic inspections by Ohio EPA.

6.2 Environmental Covenant:

A component of the remedy for Green I Landfill is the recording of an environmental covenant pursuant to ORC §§ 5301.80 to 5301.92. This environmental covenant, to be recorded in the Hocking County Recorder's Office, will place restrictions on the landfill properties which contain waste following the completion of the cap construction to prohibit the use of groundwater for potable and/or agriculture purposes. In addition, the restrictions will prohibit building or placing any permanently occupied structures on the landfill proper. Implementation of this environmental covenant will address RAO H1, H2 and H3.

Performance Standard: The environmental covenant element of the remedy will be considered successful when proof of recording of the environmental covenant in the Hocking County Recorder's Office is presented to Ohio EPA. Compliance with the environmental covenant will be further assessed during Ohio EPA's periodic inspections of the landfill.

6.3 Leachate Collection and Management:

The preferred alternative for leachate collection at the Green I Landfill involves the installation of a series of drains and piping that will collect and convey the leachate to holding tanks, subsequent to appropriate treatment and/or disposal. Collected leachate will be sampled and quantified over time in order to monitor the chemical characteristics and volume of the leachate. The leachate collection system will both eliminate the off-Site discharge of leachate and the direct contact of leachate by wildlife and trespassers.

The responsible party(ies) and Ohio EPA will also review the chemical analysis of the leachate to detect changes in concentrations or chemical constituents as a routine operation and maintenance activity. Ohio EPA's expectation is that the

leachate will become more concentrated as less surface water infiltration occurs. As stated in Section 6, Ohio EPA will determine the final leachate treatment method for Green I Landfill during the Five Year Review process, based on the quality and quantity of leachate generated. The implementation of this remedial action will eliminate the pathways described by RAO H2 and E1.

Performance Standard: This element of the remedy will be considered successful when a leachate management system is constructed and maintained to pass periodic inspections by Ohio EPA, documenting that all leachate is being contained.

7.0 Documentation of Significant Changes

Ohio EPA received comments on the Preferred Plan, but no significant changes have been made to the selected remedial alternative. The Agency's responses to the comments are provided in Section 8.0 (Responsiveness Summary).

8.0 Responsiveness Summary

A public meeting/hearing was held on February 12, 2014, to present the Agency's Amended Preferred Plan for the Site and to solicit public comment. Additionally, oral and written comments were accepted at this meeting and during the comment period which ended February 21, 2014.

Ohio EPA received comments at the public meeting/hearing and/or during the public comment period. A stenographic record of the public hearing portion of the meeting is attached. For those comments received by the Agency, a summation of each comment (in italics) followed by the Agency's response (in plain text) is presented below. Comments of a similar nature were combined in this summary.

Comment #1
Green I Landfill is now 40 years old and the metal drums disposed of in the landfill have likely corroded and released their contents and potentially created pockets of liquid wastes within the landfill. If, during remedy construction, these materials were disturbed and released to the surface, what actions will be taken to ensure public safety?

> Response: As part of the remedial design an emergency action / contingency plan will be developed to address sudden, unplanned changes in conditions at the landfill that pose a risk to workers, the public or the environment.

Comment #2
What will be done for dust control for homes in the area? Could a barrier of trees be established?

> Response: Dust control methods will be employed during construction. These methods typically include the use of water to suppress dust from construction equipment, limiting speeds, and other best management practices. These methods will be included in the remedial design. A barrier of trees between the landfill and adjacent properties will be considered as part of the design.

Comment #3
Some people are more sensitive to odors than others and migraines can be triggered by such odors. Will there be special case provision provided for people that have these needs if the need arises? (cost associated with relocation during the time period of the offensive odors)

Response: Excessive odors are not anticipated with this project. This concern is noted and will be discussed and addressed during the development of the emergency action / contingency plan.

Comment #4

The remedial investigation determined that water bearing zones near the elevation of the landfill have detectable amounts of contamination. There is concern about the long-term safety of the wells in the area and a desire to have wells that are not already cased abandoned and replacement wells drilled to current requirements.

Response: Ohio EPA will require periodic sampling of the existing ground water monitoring network during the operation and maintenance phase of the project. In addition, the responsible parties will be required to sample potable wells within 1,000 feet of the landfill prior to the start of construction, within 60 days of the completion of construction, and one year prior to the start of the five year review. In the event that future data demonstrate that contamination from the landfill threatens potable wells, an appropriate course of action will be determined.

Comment #5

Commenter expressed concern about the impact of the landfill on local property values.

Response: Ohio EPA is limited to specific criteria while preparing plans for clean-up activities, and cannot consider property value.

Comment #6

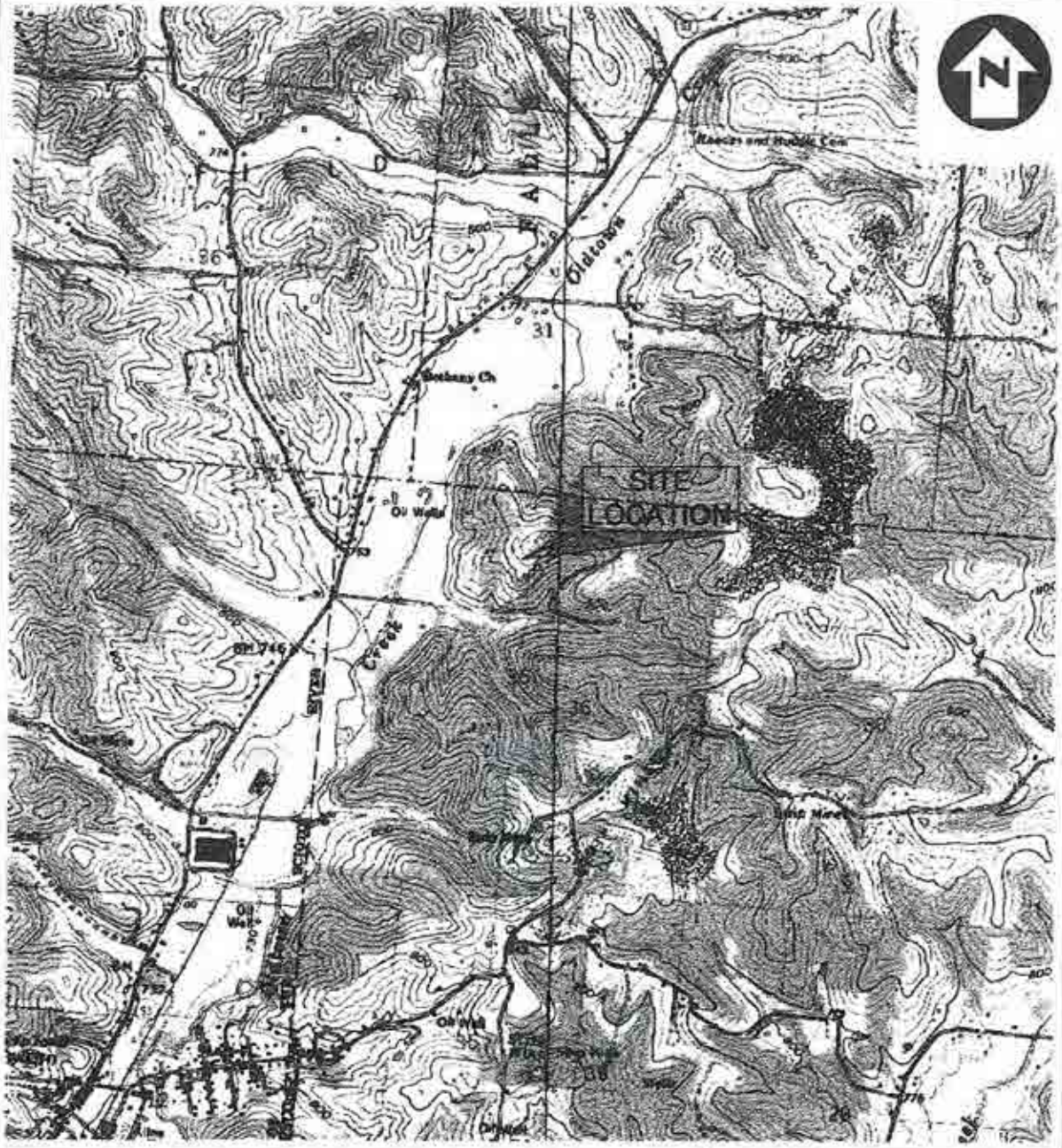
Commenter indicated that a source of borrow dirt could be made available to reduce the amount of truck traffic on Hunters Woods Road.

Response: The source of the borrow soils is an issue to be resolved by the responsible parties and their contractors.

Comment #7

Additional water from drainage of surface water from the landfill could create flooding on the lower portions of Hunters Woods Road.

Response: This concern is noted and drainage patterns will be reviewed during the design phase of the project. If practical, surface water will be managed to prevent additional flow to Hunters Woods Road.



2000 1000 0 2000

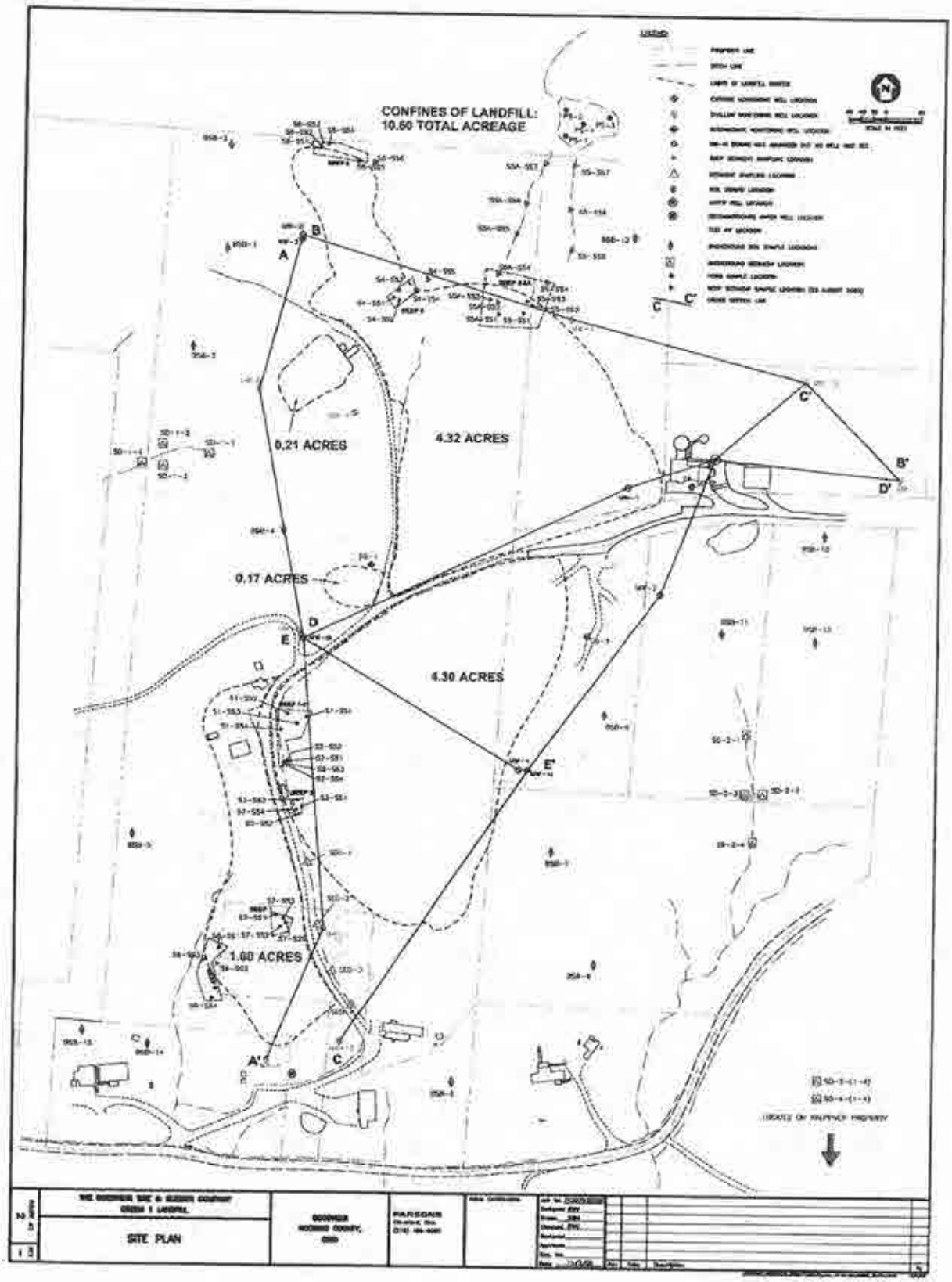
SCALE IN FEET

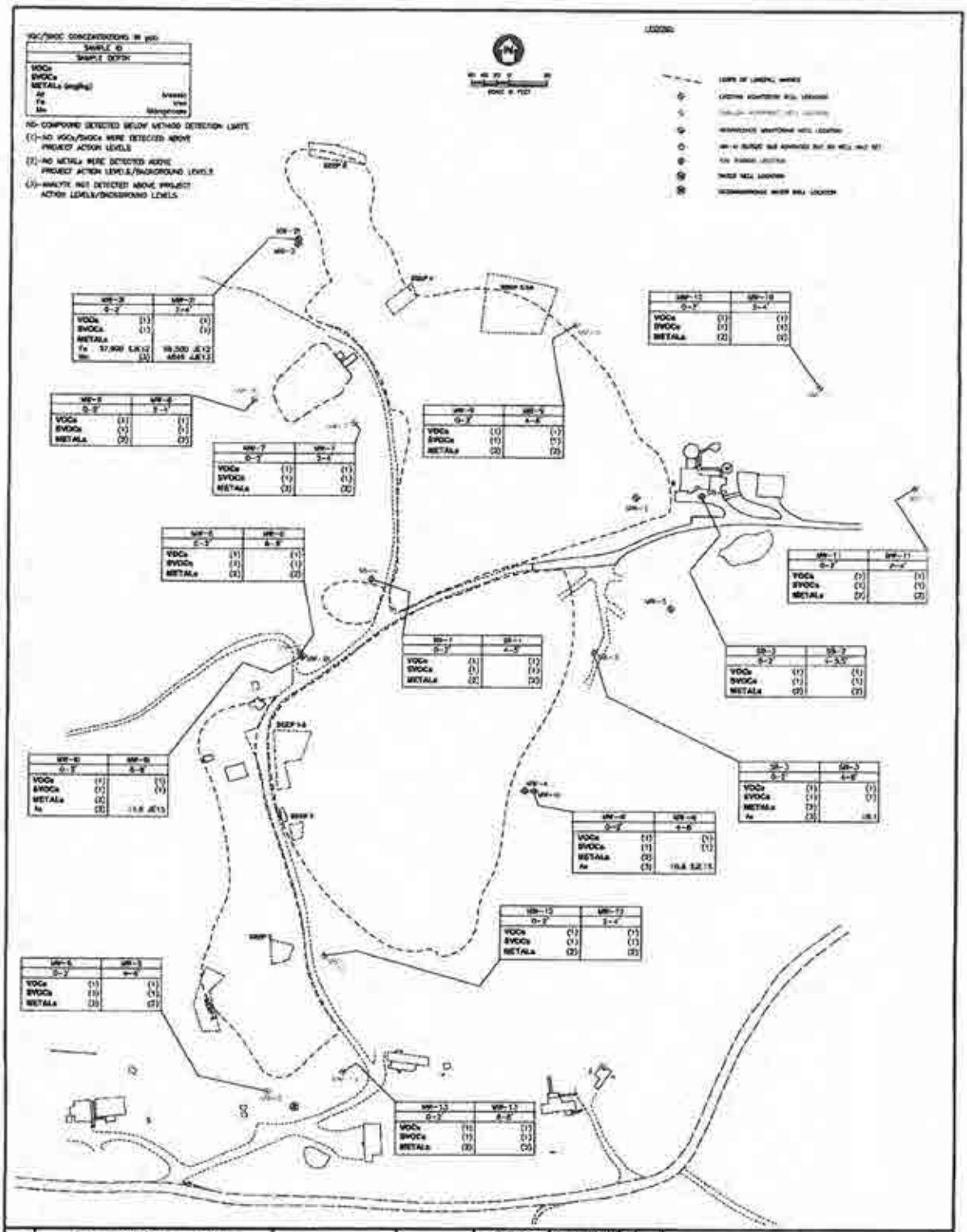
OHIO
QUADRANGLE LOCATION

THE GOODYEAR TIRE & RUBBER CO.	
GREEN I LANDFILL HOCKING CO., OHIO	FIGURE 1 SITE LOCATION MAP

PARSONS
19101 VILLAVIEW ROAD, CLEVELAND, OH 44119, PHONE: 216-486-9000

742629.07000
\\CLEFS01\P:\GOODYEAR_GREEN 1...42629SLM.DWG 11/2/05


CONFINES OF LANDFILL:
10.60 TOTAL ACREAGE
0.21 ACRES
4.32 ACRES
0.17 ACRES
6.30 ACRES
1.00 ACRES
A
B
C
D
E
A'
B'
C'
D'
E'
SITE PLAN


VOC/SVOC CONCENTRATIONS IN ppb
SAMPLE ID
SAMPLE DEPTH
VOCs
SVOCs
METALs (mg/kg)
Fe
Mn
ND- COMPOUND DETECTED BELOW METHOD DETECTION LIMITS
(1)-NO VOCs/SVOCs WERE DETECTED ABOVE PROJECT ACTION LEVELS
(2)-NO METALs WERE DETECTED ABOVE PROJECT ACTION LEVELS/BACKGROUND LEVELS
(3)-ANALYTE NOT DETECTED ABOVE PROJECT ACTION LEVELS/BACKGROUND LEVELS
LEGEND
SOIL RESULTS ABOVE PROJECT ACTION LEVELS/BACKGROUND CONCENTRATIONS
PARSONS

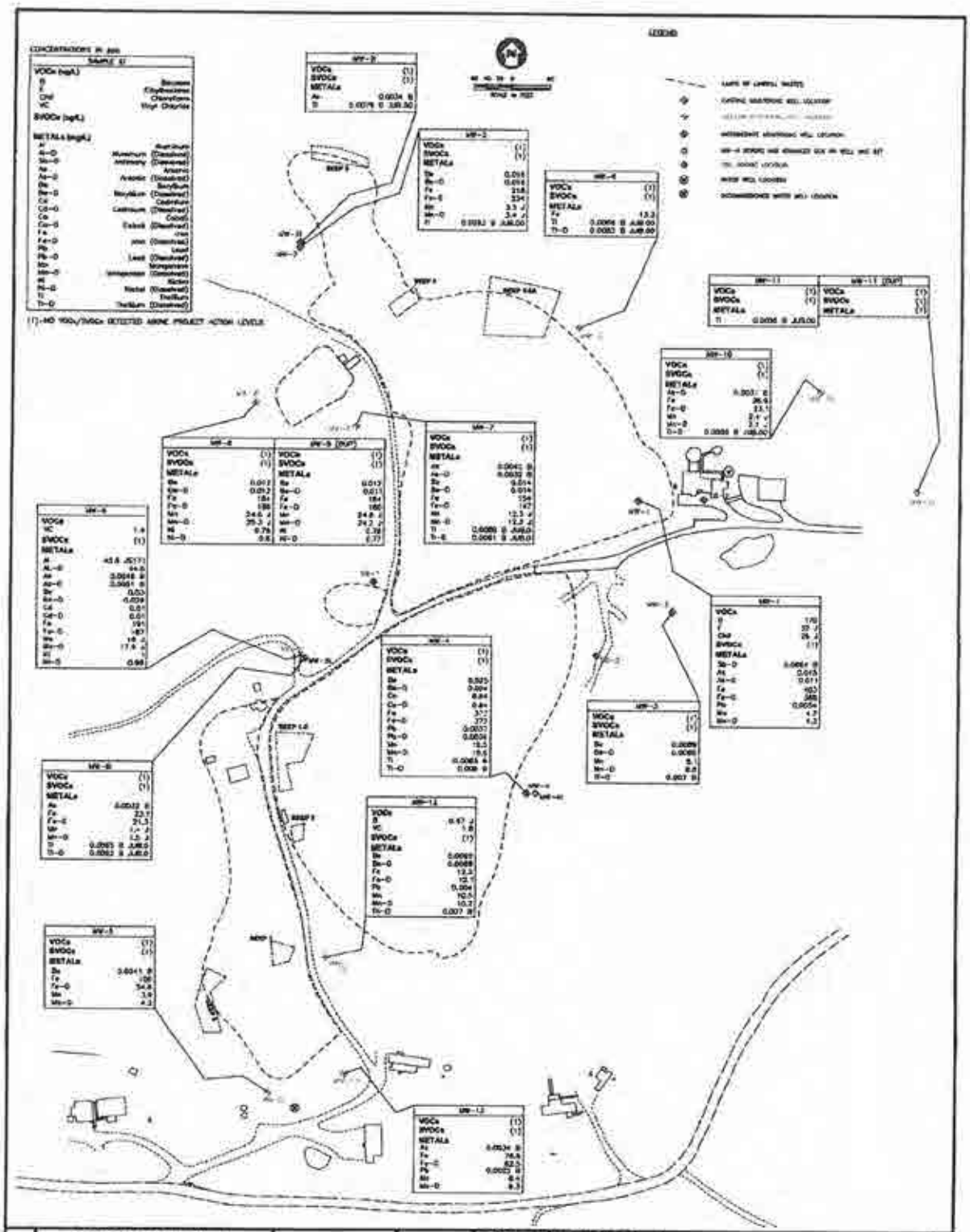
Comment #8
What can be done to preserve the aesthetics currently provided by the tree covered landfill after installation of the cap?

Response: This comment is noted and efforts will be made to achieve a suitable resolution within the constraints of acceptable landfill capping practices.

Comment #9
What will be done to ensure the public roads are maintained or repaired if damaged by the heavy trucks bringing materials into the Site.

Response: During the public meeting a township trustee advised that there is a road use and repair agreement that will need to be signed prior to construction. This agreement will ensure damage to the road is corrected after construction is completed.

All written comments received are available for review at Ohio EPA's Southeast District Office located at 2195 East Front Street, Logan, Ohio, and at the site's public repository, the Logan-Hocking Public Library in Logan.


LEGEND
CONCENTRATIONS IN ppb
SAMPLE ID
VOCs (ug/L)
SVOCs (ug/L)
METALS (mg/L)
(1)-NO VOCs/SVOCs DETECTED ABOVE PROJECT ACTION LEVELS
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9 (DUP)
MW-10
MW-11
MW-11 (DUP)
MW-12
MW-13
MW-14
MW-15
MW-16
MW-17
MW-18
MW-19
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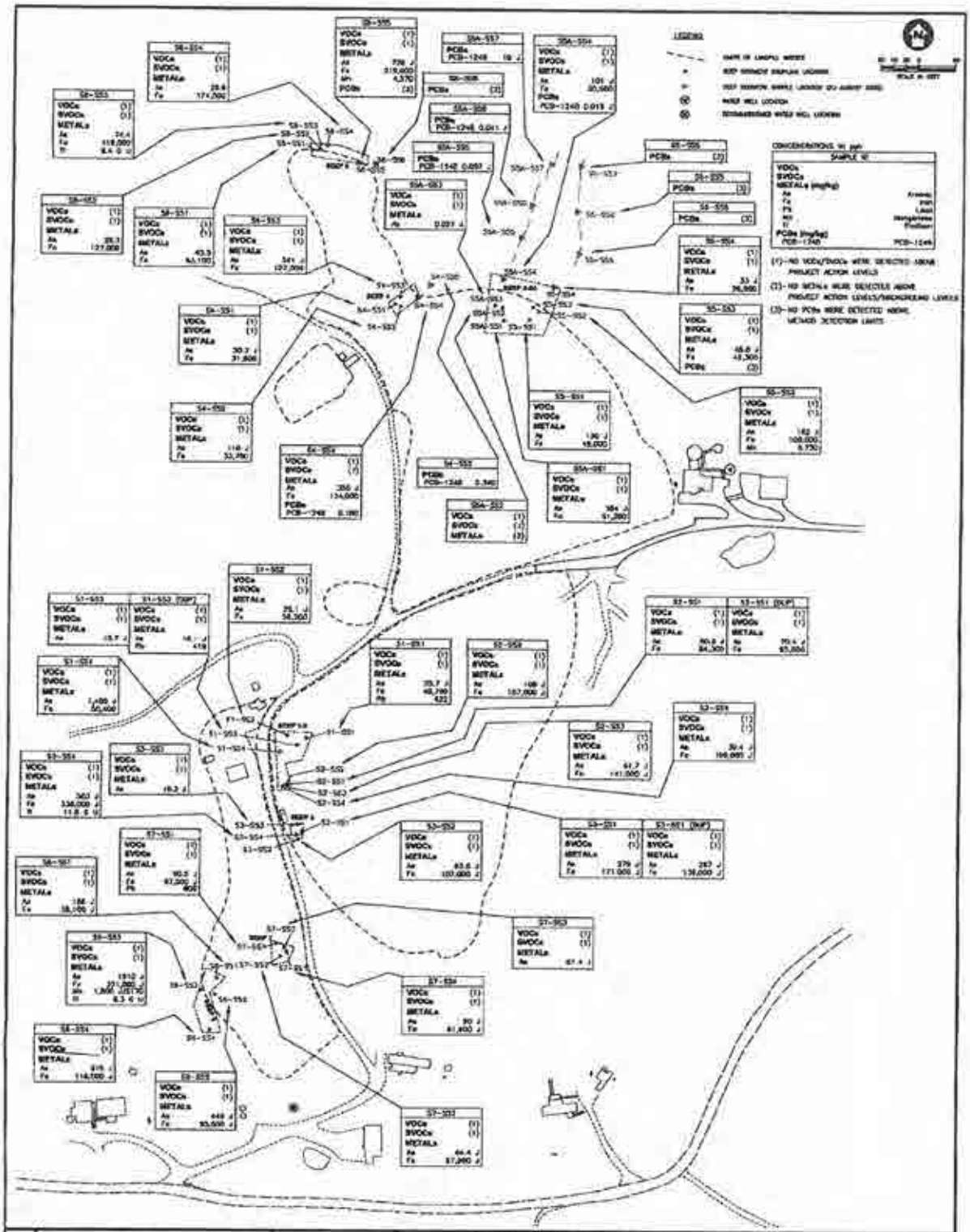
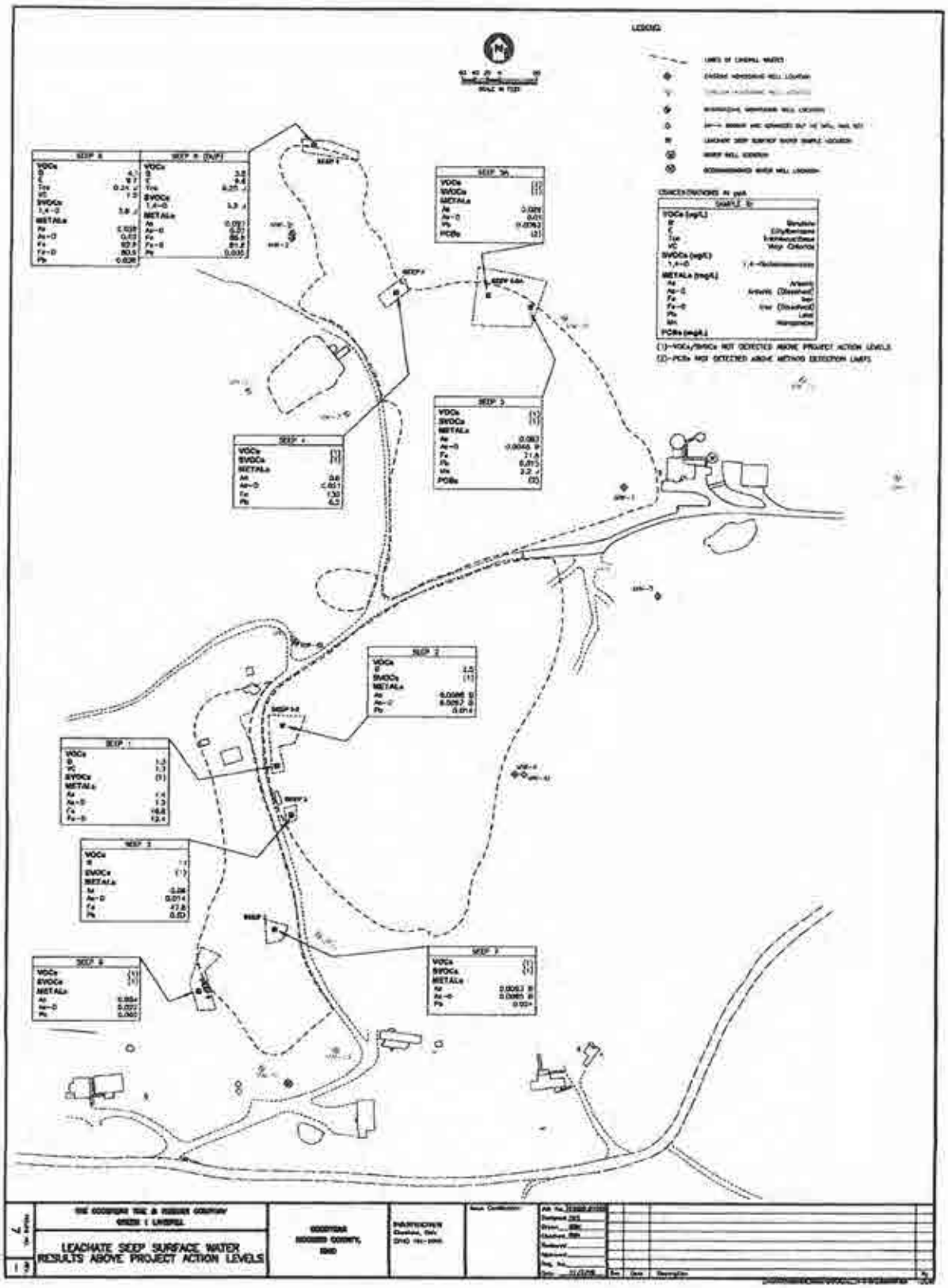
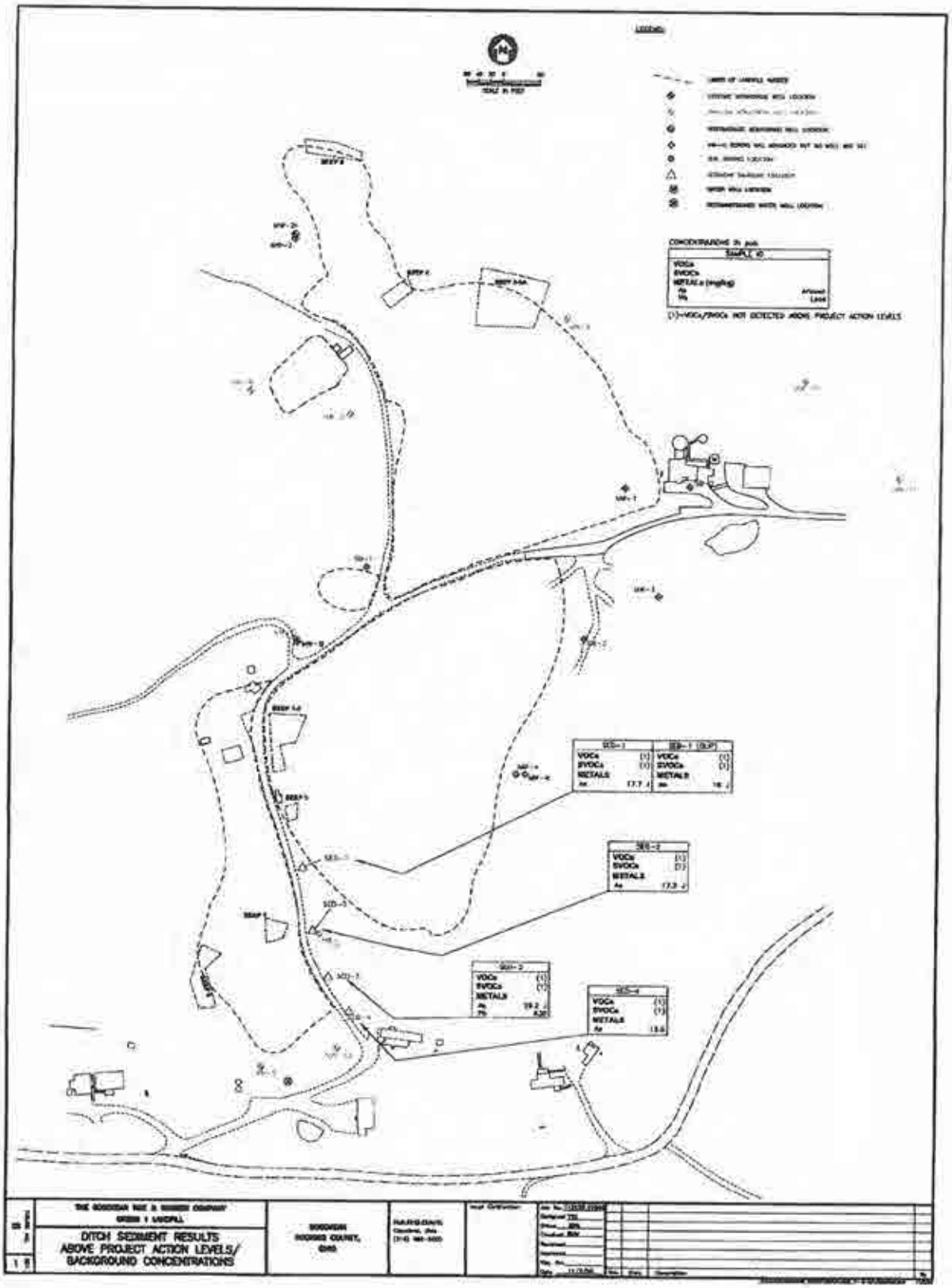
MW-51



LEACHATE SEEP SURFACE SOIL RESULTS ABOVE PROJECT ACTION LEVELS/ BACKGROUND CONCENTRATIONS


LEGEND
SEEP 6
SEEP 6 (DUP)
SEEP 3A
SEEP 3
SEEP 4
SEEP 2
SEEP 1
SEEP 5
SEEP 7
LEACHATE SEEP SURFACE WATER
RESULTS ABOVE PROJECT ACTION LEVELS


LEGEND
SCALE IN FEET
CONCENTRATIONS IN ppb
SAMPLE ID
VOCs
SVOCs
METALS (mg/kg)
As
Zn
Arsenic
Lead
(1)=VOCs/SVOCs NOT DETECTED ABOVE PROJECT ACTION LEVELS
SED-1
VOCs (1)
SVOCs (1)
METALS
As 17.7 J
SED-1 (DUP)
VOCs (1)
SVOCs (1)
METALS
As 18 J
SED-2
VOCs (1)
SVOCs (1)
METALS
As 17.3 J
SED-3
VOCs (1)
SVOCs (1)
METALS
As 19.2 J
Zn 8.20
SED-4
VOCs (1)
SVOCs (1)
METALS
As 13.6
DITCH SEDIMENT RESULTS
ABOVE PROJECT ACTION LEVELS/
BACKGROUND CONCENTRATIONS

ATTACHMENT A: GLOSSARY OF TERMS

Adsorb	The adhesion in an extremely thin layer of molecules (as of gases, solutes, or liquids) to the surfaces of solid bodies or liquids with which they are in contact
Aquifer	An underground geological formation capable of holding and yielding water.
ARARs	Applicable or relevant and appropriate requirements. Those statutes and rules which strictly apply to remedial activities at the site, or those statutes and rules whose requirements would help achieve the remedial goals for the site.
Baseline Risk Assessment	An evaluation of the risks to humans and the environment posed by a site.
Bioconcentrate	The net result of the uptake, distribution, and elimination of a substance in an organism due to water-borne exposure, whereas bioaccumulation includes all routes of exposure (i.e. air, water, soil, food).
Carcinogen	A chemical that causes cancer.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq. A federal law that regulates cleanup of hazardous substances sites under the U.S. EPA Superfund Program.
Contaminants of Concern (COCs)	Chemicals identified at the site which are present in concentrations that may be harmful to human health or the environment.
Decision Document	A statement issued by the Ohio EPA giving the Director's selected remedy for a site and the reasons for its selection.
Ecological Receptor	Animals or plant life exposed or potentially exposed to chemicals released from a site.
Environmental Covenant	A servitude arising under an environmental response project that imposes activity and use limitations and that meets the requirements established in section 5301.82 of the Revised Code.
Exposure Pathway	Route by which a chemical is transported from the site to a human or ecological receptor.
Feasibility Study	A study conducted to ensure that appropriate remedial alternatives are developed and evaluated such that relevant information concerning the remedial action options can be presented to a decision-maker and an appropriate remedy selected.
Final Cleanup Levels	Final cleanup levels are identified in the Decision Document along with the RAOs and performance standards.

Hazardous Substance	A chemical that may cause harm to humans or the environment.
Hazardous Waste	A waste product, listed or defined by the RCRA, which may cause harm to humans or the environment.
Human Receptor	A person or population exposed to chemicals released from a site.
Hydrolyze	To decompose by reacting with water.
Leachate	Water contaminated by contact with wastes.
LOE Contractor	Level of Effort Contractor. A person or organization retained by the Ohio EPA to assist in the investigation, evaluation or remediation of a site.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in a public drinking water supply. The level is established by U.S. EPA and incorporated into OAC 3745-81-11 and 3745-81-12.
NCP	National Oil and Hazardous Substances Pollution Contingency Plan, codified at 40 C.F.R. Part 300 (1990), as amended. A framework for remediation of hazardous substance sites specified in CERCLA.
O&M	Operation and Maintenance. Long-term measures taken at a site, after the initial remedial actions, to assure that a remedy remains protective of human health and the environment.
PAHs	Polycyclic aromatic hydrocarbons. Class of semi-volatile chemicals including multiple six-carbon rings. Often found as residue from coal-based chemical processes.
PCBs	Polychlorinated biphenyls. An oily chemical typically used in electrical equipment.
Performance Standard	Measures by which Ohio EPA can determine if RAOs have been met.
Preferred Plan	The plan that evaluates the preferred remedial alternative chosen by Ohio EPA to remediate the site in a manner that best satisfies the evaluation criteria.
Preliminary Remediation Goal (PRG)	Initial clean-up goals that (1) are protective of human health and the environment and (2) comply with ARARs. They are developed early in the process (scoping) based on readily available information and are modified to reflect the results of the baseline risk assessment (termed site-specific PRGs at this point in time). They are also used during the analysis of remedial alternatives in the remedial investigation/feasibility study (RI/FS).
Probable Effects Concentration (PEC)	A concentration above which adverse effects to sediment associated organisms are expected to occur more often than not.
Project Action Level	A concentration for a contaminant of concern that has been determined by regulation or through a risk

	assessment to be protective of human health or ecological receptors. This concentration value could be based on a preliminary remediation goal ("PRG"); a drinking water maximum contaminant level ("MCL"); or a background concentration ("background").
RCRA	Resource Conservation and Recovery Act of 1976 codified at 42 U.S.C. Section 6901 et seq. (1988), as amended. A federal law that regulates the handling of hazardous wastes.
Remedial Action Objectives (RAOs)	Specific goals of the remedy for reducing risks posed by the site.
Remedial Investigation	A study conducted to collect information necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives.
Responsiveness Summary	A summary of all comments received concerning the Preferred Plan and Ohio EPA's response to all issues raised in those comments.
Threshold Effects Concentration (TEC)	A concentration below which adverse effects to sediment associated organisms are not expected to occur.
Vadose (or vadose zone)	the layer of soil extending from the ground surface to groundwater
Water Quality Criteria	Chemical, physical and biological standards that define whether a body of surface water is unacceptably contaminated. These standards are intended to ensure that a body of water is safe for fishing, swimming and as a drinking water source. These standards can be found in Chapter 3745-1 of the Ohio Administrative Code

Attachment B: Public Comments Received

This is in reference to the Green landfill 1 that was operated between the years of 1970 to 1974

With todays date being Jan. 23, 2014 the Green landfill 1 would be 40 years old,

The corrosion factors of buried steel are 20-200 microns per year depending on the PH of the soil. Using a factor of 40 microns per year, times 40 years would equal 1600 microns of total corrosion over that time. If a steel drum is 18ga or 1/16" +- ,converted to microns would be around 1540 microns.

With that said then most likely any material dumped in drums no longer has any structural integrity remaining and could be creating pockets of liquid material. If equipment is run over these areas, there could be a chance the equipment would break through the over burden and bring this material to the surface. If this was to happen what emergence action plan will you have in place to address this issue should it arise?

Most of the homes in this area lay east of the said landfill and prevailing winds will carry odors and dust in the direction of these homes.

Some people are more hyper sensitive to odors then others and migraines can be triggered by such odors. Will there be special case provision provided for people that have these kind of needs if the need arises? (cost associated with relocation during the time period of the offensive odors)

It is widely known from geotechnical data reviewed that clays and bedrock do have a porosity factor depending on the strata you are working with. Cracks and separation are often found vertically and horizontally in bedrock formations. Being that some of the higher aquifers are already contaminated it would stand to reason that the downward or lateral migration would continue.

Some of the residence on Hunters woods rd purchased our American dream before the real estate disclosure laws were in effect. My wife and I was 22 and 25 years old when we purchased this property and had no idea or was we told about a landfill in the area.

FHA and HUD or any government back loans will not longer finance homes on Hunters Woods Rd . Local banks also are being very particular about giving loans for homes like this.

In 1974 I'm sure everyone thought that what they did at Green Landfill 1 was the thing to do but clearly it was not. I'm also sure that in 2014 everyone feels we are doing the right thing.

The deeper wells do not show any signs of contaminations and I would hope that we don't wait until they do!

With some of the moneys that are being saved with the new plan how about considering casing the drinking water wells of the residence that are not already cased.

Now is the time, for the right long term fix, Hocking County now draws as many people as Yellow stone national park does, the moneys generated from tourism are a major part of the employment and tax base in Hocking county and a toxic contamination of an aquifer would be a media feeding frenzy. Mike Mouser

1 BEFORE THE OHIO ENVIRONMENTAL PROTECTION AGENCY

2 - - -

3 IN RE: :
:
4 GREEN 1 LANDFILL :
PROPOSED REMEDY. :
5

6 - - -

7 TRANSCRIPT OF PROCEEDINGS

8 - - -

9 Public hearing held before Ms. Amber Finkelstein,
10 Public Involvement Coordinator for Ohio EPA's Public
11 Interest Center, taken before Diane L. Schad, Court
12 Reporter, at Ohio EPA Southeast District Office,
13 Conference Room 100, 2195 East Front Street, Logan,
14 Ohio 43138, commencing on Wednesday, February 12, 2014,
15 at 6:50 p.m.

16 - - -

17 FRALEY, COOPER & ASSOCIATES
222 East Town Street, Second Floor
18 Columbus, Ohio 43215-4620
(614) 228-0018 - (800) 852-6163
19 Fax - (614) 224-5724

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1 INDEX TO WITNESSES

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6 TIM BLAIR	9
7 MICHAEL MOUSER	10
8 WILLIAM KAEPPNER	11

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1 Wednesday Evening Session
2 February 12, 2014
3 - - -
4 MS. FINKELSTEIN: The purpose of this public
5 hearing is to accept comments on the official record
6 regarding the amended cleanup plan for the 10.6-acre
7 Green 1 Landfill site near Logan on Hunters Woods Road
8 in Green Township.
9 Ohio EPA published a public notice to
10 announce the hearing and public comment period
11 regarding the project in newspapers in the area. This
12 notice was issued in Ohio EPA's Weekly Review, which is
13 a publication that lists, by county, all Agency
14 activities and actions taking place in the State of
15 Ohio.
16 Written and oral comments received as part of
17 the official record are reviewed by Ohio EPA prior to a
18 final action of the Director. To be included in the
19 official record, written comments must be received by
20 Ohio EPA by the close of business on February 21st,
21 2014. Comments received after this date may be
22 considered as time and circumstances permit, but will
23 not be part of the official record for this hearing.
24 Written comments can be filed with me tonight

1 or submitted to Ohio EPA, P.O. Box 1040 -- Well, it's
2 best to submit them to the address on the agenda that
3 brings them here, correct, Mike?
4 MR. MOUSER: So the ones I emailed are still
5 part of it?
6 MR. SHERRON: Yes, I have those.
7 MS. FINKELSTEIN: The specific instructions
8 for the address for the comments can be found on the
9 agenda for this hearing.
10 It is important for you to know that all
11 comments received in writing at the Agency, all written
12 comments given to me tonight, and all verbal comments
13 given here tonight are given the same consideration.
14 I ask that all exhibits, including written
15 speeches, maps, photographs, overheads, and any other
16 physical evidence referred to in your testimony be
17 submitted to me tonight as part of the official record.
18 If you chose not to submit the information, Ohio EPA
19 cannot ensure the accuracy of your testimony.
20 A court reporter is here to make a
21 stenographic record of tonight's proceedings.
22 Questions and comments made at the public
23 hearing will be responded to in a document known as a
24 responsiveness summary.

1 The Director, after taking into consideration
2 the recommendations of the program staff and comments
3 presented by the public, may issue or deny the permit.
4 Once a final decision is made by the
5 Director, the final decision along with the
6 responsiveness summary will be communicated to the
7 applicant, all persons who have submitted comments and
8 all persons who present testimony at tonight's hearing.
9 Final actions of the Director are appealable
10 to the Environmental Review Appeals Commission, also
11 known as ERAC. The board is separate from Ohio EPA
12 and reviews cases in accordance with Ohio's
13 environmental laws and rules. Any ERAC decision is
14 appealable to the Franklin County Court of Appeals.
15 Any order of the Court of Appeals is appealable to the
16 Supreme Court of Ohio.
17 If you do wish to present testimony at this
18 hearing tonight and have not already completed a blue
19 card, please do so at this time and return it to me or
20 Mike. The cards are available at the registration
21 table.
22 Each individual may testify only once and
23 speak for five minutes, so I do ask that you use your
24 time wisely and that you are respectful of others

1 providing their comments and questions.
2 There is no cross-examination of the speaker
3 or Ohio EPA representatives in public hearings of this
4 type. Ohio EPA public hearings afford citizens an
5 opportunity to provide input, therefore we will not be
6 able to answer questions during this hearing. The
7 hearing officer or an Ohio EPA representative may ask
8 clarifying questions of speakers to ensure the record
9 is as complete and accurate as possible.
10 If you have a question, please phrase your
11 comments in the form of a question and the Agency will
12 address your concerns in writing within the
13 responsiveness summary.
14 We will now receive testimony. As I call
15 your name, please step up close to Diane, our court
16 reporter, state your name, spell it for the record and
17 proceed with your testimony.
18 Our first person is Laura Lyon.
19 - - -
20 MS. LYON: I'm Laura Lyon.
21 MS. FINKELSTEIN: Spell your name, please.
22 MS. LYON: L-A-U-R-A L-Y-O-N.
23 And my biggest concern would be since I do
24 actually border the landfill is having a boundary of

1 some sort be it pine trees, some kind of trees that we
2 would negotiate, to keep out noise and at least to
3 keep -- even if it's not fresh trees to keep a layer of
4 trees of some sort that they don't tear down, and we
5 can deal with it.
6 At the last one of these I volunteered that
7 we would be willing to sell our land and use it as a
8 drive-thru. I'm no longer interested in that due to
9 the fact we have built a new house, so I am retracting
10 that from the last time.
11 But, however, we do have a dirt source if
12 that would be a possibility and that would alleviate --
13 if the dirt would be deemed as possible and we could
14 use it and then we wouldn't have to go out of the road.
15 So, I would make sure all the wells get
16 tested, and I wouldn't mind an encased well. That
17 would be very nice to take away that having to worry
18 about being contaminated.
19 And the other thing would be the fact that we
20 need to watch the drainage on the road. It's a big
21 concern being that road floods three times a year at
22 least, or it floods three places of the road when it
23 floods, already, and any additional water coming down
24 from that landfill from the cap will create more

1 flooding. And our trustees have given us the largest
2 tiles, which have done a better job. But adding to
3 that water level because of that cap, the liner will
4 not do us any favors. We need to make the water go a
5 different direction. That's it.
6 MS. FINKELSTEIN. Thank you.
7 And Diane is asking that you come a little
8 closer. There's noise above our heads. It's important
9 that she hears you so she gets your testimony properly.
10 Mr. Horn.
11 - - -
12 MR. HORN: Larry A. Horn, Jr. L-A-R-R-Y A.
13 H-O-R-N, J-R.
14 Like Laura I'm concerned for something
15 that -- I moved into the woods so I don't want to look
16 at a fence and a flat pasture. I am wondering what's
17 going to happen with the material if needed to be
18 brought in or the bad stuff needs to be taken out so
19 the road is kept and passable for the next 40, 50 years
20 while I'm there, I guess.
21 I really had no questions. I was just
22 wondering, you know, was there money allotted, how soon
23 they're going to get started, seeing whether or not the
24 wells are going to be sampled, and seeing whether or

not we could all be notified in black and white for the next meeting or in the future.

MR. SHERRON: So, Larry, just so I can clarify what your beginning question and comment was. You're not so worried about the loads that are being brought in or out, just how that's going to impact the traffic?

MR. HORN: And the road.

MR. SHERRON: And the road condition?

MR. HORN: Right. And the 15-ton bridge.

MR. SHERRON: Okay.

MR. HORN: Thank you.

MS. FINKELSTEIN: Thank you.

Randy Findlay.

MR. FINDLAY: Pass.

MS. FINKELSTEIN: Tim Blair.

- - -

MR. BLAIR: I'm Tim Blair, Green Township Trustee. T-I-M B-L-A-I-R.

My main concern was the road and what is going to happen with the road.

As far as the Township is concerned, we don't want to put a lot of money in the road repairing it and doing things to it and then have big trucks come back

in and tear it all up immediately right afterwards. So we need to be kept in the loop to know when if construction is going to happen, and we need to make sure that the construction people are aware that we do have a road repair agreement they have to sign before they can take their trucks on our road. That guarantees us that they will repair it.

And as far as Larry's concern about the 15-ton bridge, I talked to the county engineer about it. There is no weight restrictions whatsoever on that bridge, and he said it will haul any legal load that comes across. I have been underneath the bridge and I don't think so. But that's what our county engineer says.

MS. FINKELSTEIN: Thank you, Mr. Blair.

And Mr. Mouser.

- - -

MR. MOUSER: My name is Mike Mouser. I would like to see the remediation --

MS. FINKELSTEIN: Would you spell your name for the record.

MR. MOUSER: M-O-U-S-E-R.

I would like to see the remediation agreement address the potable water for the residents of Hunters

1 Woods Road.

2 I'm sure in 1974 they thought the fix of the

3 landfill was the correct thing to do. And I know now

4 that you think that the migration between the 100-foot

5 wells and 300-foot wells is not feasible, but a more

6 positive solution would be I would think a better

7 remedy then to wait to see if it migrates laterally

8 into the other aquifers.

9 MS. FINKELSTEIN: We have now heard from

10 anyone who's turned in a blue card. Is there anyone

11 else who would like to provide testimony tonight?

12 MR. KAEPPNER: Yes.

13 MS. FINKELSTEIN: If you would come up.

14 - - -

15 MR. KAEPPNER: Yes. William Kaeppner,

16 K-A-E-P-P-N-E-R.

17 Being a property owner on Hunters Woods Road

18 and my daughter's house being there, I have never

19 seen -- During the initial phases there was going to be

20 test wells done north, south, east and west to see how

21 far the migrations were or are. I have never been

22 informed of any test wells on the south side of Hunters

23 Woods Road in that area at all, so -- and that

24 watershed that comes up Hunters Woods Road flows north

to south across Hunters Woods Road and up the valley. So, as I said, I never seen any test wells on the south side of Hunters Woods Road.

There was also questions at the first couple steps that they were going to be requesting properties to park equipment on and stuff and there has never been any follow-up to that, if they still have that. If you still have that as a request from neighboring land owners with folks who have flat ground for the construction.

MR. SHERRON: So, Bill, are you offering a staging area?

MR. KAEPPNER: The initial stuff that came out was a little more Draconian in request. We do have flat land. There's other folks who have flat land closer.

My primary interest is the wells, the water quality. Secondary, is there going to be requirements for staging areas.

MR. SHERRON: Again --

MR. KAEPPNER: Obviously you can't answer the question. But I'm wondering about staging areas.

My primary request is well samples on the south side of Hunters Woods Road, because I've never

1 received anything.

2 MR. SHERRON: Okay.

3 MR. KAEPPNER: So that's about it, really.

4 MS. FINKELSTEIN: Thank you.

5 MR. KAEPPNER: Thank you.

6 MS. FINKELSTEIN: Was there anyone else who

7 wanted to present testimony tonight?

8 All right. If there are no further requests

9 to present testimony -- one more chance -- we will go

10 ahead and end the hearing.

11 Remember, written comments will be accepted

12 through the close of business on February 21st. Again,

13 these can be sent to the address on the agenda.

14 This does conclude today's hearing. Thank

15 you for your testimony, cooperation and participation

16 in Ohio EPA's decision-making process. The time is now

17 7:03 and this hearing is adjourned.

18 - - -

19 Thereupon, the hearing was adjourned at

20 7:03 p.m., on Wednesday, February 12, 2014.

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2 CERTIFICATE

3 - - -

I do hereby certify that the foregoing is a
4 true and correct transcript of the proceedings taken by me in this matter before the Ohio EPA, on Wednesday,
5 February 12, 2014.

6 DIANE L. SCHAD,
COURT REPORTER.

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Attachment C: R.C. 3734.02(G) Exemption

OHIO E.P.A.

JUL -2 2012

ENTERED DIRECTOR'S JOURNAL

BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the matter of:	:	
The Goodyear Tire & Rubber Company **1144 East Market Street** **Akron, Ohio 44316**	:	**Director's Final** **Findings and Orders**
Respondent.	:	
For the Site known as:	:	
Green I Landfill Site **Hunters Woods Road** **Green Township, Hocking County, Ohio**	:	

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to The Goodyear Tire & Rubber Company ("Goodyear"), pursuant to the authority vested in the Director of Ohio EPA under Ohio Revised Code ("ORC") § 3734.02(G) and Ohio Administrative Code ("OAC") Rule 3745-27-03(B).

II. PARTIES BOUND

These Orders shall apply to and be binding upon Goodyear and its successors in interest liable under Ohio law. No change in ownership of Goodyear or of the Green I Landfill shall in any way alter Goodyear's obligations under these Orders.

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By [signature] Date: 7-2-12

III. DEFINITIONS

Unless otherwise expressly provided herein, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3734.

IV. FINDINGS

The Director of Ohio EPA has determined the following findings:

1. The Green I Landfill Site ("Site") is located in Section 36, Green Township, Hocking County, Ohio, off Hunters Woods Road (Township Road 358). The Site encompasses approximately 18 acres, including the Green I Landfill, and is surrounded by residential properties.

2. The Green I Landfill operated from July 1970 to July 1974, when the landfill ceased acceptance of waste. Goodyear is the current owner of the Site.

3. During its operation, the Green I Landfill accepted "industrial waste" and/or "other waste" as defined in ORC § 6111.01(C) and (D), and/or "hazardous wastes" as defined in ORC § 3734.01(J), and/or "hazardous substances" as defined in § 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601(14).. Wastes disposed of at the Site included municipal waste and drummed materials, including: polyols, isocyanates, alcohols, oils, waxes, paints, hydrocarbon solvents, washer cleaner sludge, and paint booth sludge. Goodyear stated the company disposed of 4,605 drums of liquid waste and 94,268 cubic yards of miscellaneous solid waste at the Green I Landfill between July 1970 and June 1974.

4. In November 1983, Ohio EPA conducted a preliminary assessment at the Site. Laboratory analysis of ground water samples collected from the Site indicated levels of Volatile Organic Compounds (VOCs) in excess of Maximum Contaminant Levels (MCLs). In August 1994, Ohio EPA prepared a Site inspection report for U.S. EPA. The report summarized ground water sampling results, which indicated the presence of phenol, benzoic acid, 4-methylphenol, benzene, arsenic, barium, beryllium, chromium, lead, nickel and cyanide. U.S. EPA completed a removal action in November 1991 after drums near the surface of the ground were accidentally uncovered at a portion of the Site and a black sludge oil material containing polychlorinated biphenyls (PCBs) seeped from the ground.

5. In March 2000, additional sampling conducted by Ohio EPA revealed VOC and heavy metal contamination in several seeps on the Site.

6. On September 20, 2002, Goodyear agreed to an administrative order with Ohio EPA to investigate contaminants at the Site by conducting a Remedial Investigation (RI) to define the nature and extent of contamination at the Site, and a Feasibility Study (FS) to develop and evaluate remedial alternative(s) for cleanup of the Site.

7. Ohio EPA approved the RI Report on December 20, 2005, and approved the FS Report on December 14, 2007.

8. On February 9, 2010, Ohio EPA notified the public of its Preferred Plan for remediation of the Site and solicited public comments. On November 19, 2010, the Director of Ohio EPA issued a Decision Document, which selected the remedy for the Site. Included in the selected remedial alternative (Alternative 5 in the Decision Document) was the requirement for the construction of a dual layer, low permeability landfill cap, pursuant to Ohio Administrative Code ("OAC") rule 3745-27-08, on the Green I Landfill.

9. Respondent Goodyear appealed the Decision Document to the Environmental Review Appeals Commission (ERAC) on December 22, 2010.

10. On September 15, 2011, Goodyear submitted a request for an exemption, pursuant to ORC 3734.02(G), from several of the requirements, OAC Rules 3745-27-08(D)(21) and (26), associated with the construction of a dual layer, low permeability cap on the Green I Landfill. More specifically:

    a) OAC rule 3745-27-08(D)(21)(a)(i) requires that the re-compacted soil barrier layer in the composite cap system be at least eighteen (18) inches thick, or include a geosynthetic clay liner that complies with paragraph (D)(9) of the rule with an engineered sub-base, constructed in accordance with paragraph (D)(22) of the rule. Goodyear requested an exemption from the requirement to construct an eighteen-inch thick soil barrier in order to allow the use of existing soil cover as the soil barrier.

    b) OAC rule 3745-27-08(D)(21)(g)(i-iv) requires that the re-compacted soil barrier layer in the composite cap system be constructed in lifts and to certain specifications, and be compacted to certain specifications. Goodyear requested an exemption from these requirements as the re-graded existing soil cover would be used for the soil barrier. A re-compacted soil barrier would not be placed on the landfill; therefore, adherence to the specifications in (D)(21)(g)(i-iv) is not warranted.

c) OAC rule 3745-27-08(D)(21)(h) requires that the re-compacted soil barrier layer in the composite cap system be adequately protected from damage due to desiccation, freeze/thaw cycles, wet/day cycles, and the intrusion of objects during construction of the cap system. OAC rule 3745-27-08(D)(21)(i) requires quality control testing of the constructed lifts be performed to determine the density and moisture content according to certain specifications. Goodyear requested an exemption from these requirements as the re-graded existing soil cover would be used for the soil barrier. As an alternative, Goodyear would develop construction quality controls, for Ohio EPA approval, during remedial design.

d) OAC rule 3745-27-08(D)(26)(b) requires that cap protection layers be a minimum of thirty (30) inches thick for the facilities located in the area of the Green I Landfill. Goodyear requested an exemption from this requirement, as the average soil temperatures in the area of Green I Landfill do not warrant a thirty-inch thick cap protection layer for freeze protection.

11. An alternative cover system for the Green I Landfill, as described in Goodyear's September 15, 2011 exemption request, and for the reasons explained herein, would result in a degree of protectiveness at least equal to that of the requirements in OAC rule 3745-27-08(D).

12. For the reasons summarized above, the Director has determined that issuance of an exemption to allow the proposed alternative cap system, as further described in the September 15, 2011 exemption request, is expected to provide an adequate physical barrier between the waste mass and direct contact, and is unlikely to adversely affect the public health or safety or the environment.

V. ORDERS

The Director hereby issues the following Orders:

1. Pursuant to ORC § 3734.02(G) and OAC Rule 3745-27-03(B), Goodyear is hereby exempted from the requirements in OAC rules 3745-27-08(D)(21) and (26), as described in the Findings above, for the cap system at the Green I Landfill, provided that Goodyear implements the other components of the remedy selected in the Decision Document for the Site.

2. Nothing in these Orders shall be construed to authorize any waiver from the requirements of any applicable federal or state laws or regulations except as specified herein. These Orders shall not be interpreted to release Goodyear

from responsibility under ORC chapters 3704, 3734 or 6111, the Federal Clean Water Act, the Resource Conservation and Recovery Act, or the Comprehensive Environmental Response, Compensation and Liability Act, or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.

VI. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Goodyear, any other person, firm, partnership or corporation, and/or the Site.

VII. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from exercising its lawful authority to require Goodyear to perform additional activities pursuant to ORC Chapters 3734 or 6111 or any other applicable law in the future. Nothing herein shall restrict the right of Goodyear to raise any administrative, legal, or equitable claim or defense with respect to such further actions that Ohio EPA may seek to require of Goodyear.

VIII. EFFECTIVE DATE

The effective date of these Orders shall be the date these Orders are entered into the Journal of the Director of Ohio EPA.

IT IS SO ORDERED:

OHIO ENVIRONMENTAL PROTECTION AGENCY

Scott J. Nally, Director

JUL 0 2 2012
Date