IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI

KIRBI PEMBERTON, GINA MELISSA WILFONG, JANICE JAPA, PRESTIGE ELECTRONICS, LLC, and CORNELL SPARKS, individually and on behalf of all others similarly situated,	)	No. 4:14-cv-01421-AGF
Plaintiffs,	)	
v.	)	
REPUBLIC SERVICES, INC., ALLIED SERVICES, LLC, and BRIDGETON LANDFILL, LLC,	)	
Defendants.	)	

MOTION TO DISMISS CLAIM FOR INJUNCTIVE
RELIEF IN FIRST AMENDED CLASS ACTION COMPLAINT

Defendants Republic Services, Inc.; Allied Services, LLC ; and Bridgeton Landfill, LLC ("Defendants"), for their Motion to Dismiss Claim fo r Injunctive Relief in First Amended Class Action Complaint, states as follows:

1. On July 15, 2015, Plaintiffs filed their First Amended Compl aint ("Class Action Complaint") regarding the Bridgeton Landfill. D.E. 85.

2. The Complaint requests the Court "Grant an injunction r equiring Defendants to (a) extinguish the subsurface fire or completely abate its effects, and (b) eliminate all risk that the subsurface fire will ever reach and/or cause the dispersi on of harmful and hazardous radioactive materials into the Class Area." D.E. 85 at 29 ¶ G.

3. As set forth more fully in the accompanying memorandum in s upport of this motion, Federal Rules of Civil Procedure 12(b)(6) and 12(b)(7) require dismissal of this claim.

The Class Action Complaint fails to state a claim upon which relief can be granted and, in any event, Plaintiffs have failed to join three parties required under Rule 19.

4. The Court should abstain from hearing the claim for injunctive relief because there is a pending state enforcement action which takes precedence under *Younger v. Harris*, 401 U.S. 37 (1971) and *Huffman v. Pursue*, 420 U.S. 592 (1975) and their progeny. The Court should therefore dismiss that claim.

5. Separately, Plaintiffs have failed to join three required parties: (1) the U.S. Environmental Protection Agency, (2) the State of Missouri, and (3) the City of St. Louis. Each has an interest that would likely be affected by any injunction that might issue in this case, and in the absence of EPA and the State it is likely that Defendant will be subject to multiple inconsistent requirements.

6. Defendants further rely on the arguments developed in their Memorandum in Support of its Motion to Dismiss Claim for Injunctive Relief in First Amended Class Action Complaint.

WHEREFORE Defendants respectfully request this Court dismiss the claim for injunctive relief or, in the alternative, join EPA, the State of Missouri, and the City of St. Louis as parties and for such other further relief this Court deems just and proper.

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Dated: August 14, 2015

Respectfully Submitted,

LATHROP & GAGE LLP

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the above pleading was served via the U.S. District Court ECM/ECF system upon the following counsel of record, this 14th day of August, 2015:

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI

KIRBI PEMBERTON, GINA MELISSA WILFONG, JANICE JAPA, PRESTIGE ELECTRONICS, LLC, and CORNELL SPARKS, individually and on behalf of all others similarly situated,	)	No. 4:14-cv-01421-AGF
Plaintiffs,	)	
v.	)	
REPUBLIC SERVICES, INC.; ALLIED SERVICES, LLC; and BRIDGETON LANDFILL, LLC;	)	
Defendants.	)	

MEMORANDUM IN SUPPORT OF MOTION TO DISMISS CLAIM FOR INJUNCTIVE RELIEF IN FIRST AMENDED CLASS ACTION COMPLAINT

Summary

Defendants have moved pursuant to Fed. R. Civ. P. Rules 12(b)(6) and (7), and 19(a) and (c), to dismiss one aspect of this case—the claim for injunctive relief contained in Paragraph G of the Demand for Judgment in Plaintiffs' First Amended Class Action Complaint. Defendants are today filing an Answer and Affirmative Defenses to that Class Action Complaint responding to Plaintiffs' demands for class status and money damages, so those aspects of this case can proceed. But as this memorandum shows, there are two distinct, independently sufficient reasons to bar Plaintiffs from seeking an injunction. In summary:

Younger abstention. The claim for injunctive relief is parallel to the prior, pending state court action brought by the Attorney General of Missouri, seeking injunctive relief for precisely the same alleged harms at issue in this case. Under *Younger v. Harris*, 401 U.S. 37 (1971), *Huffman v. Pursue*, 420 U.S. 592 (1975), and their progeny, the Court should abstain from entertaining the request for an injunction in this case in deference to the pending state enforcement action, and should dismiss the claim for injunctive relief.

Required joinder of parties under Rule 19. Independent of the abstention doctrine, Plaintiffs have failed to join three required parties, (1) the U.S. Environmental Protection Agency,

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(2) the State of Missouri, and (3) the City of St. Louis. Each has an interest that would likely be affected by any injunction that might issue in this case.

EPA and the State of Missouri both have pending proceedings against the defendants in which they seek remedies for the same alleged circumstances that Plaintiffs ask this Court to address with an injunction. EPA has included the Bridgeton landfill as part of a site under its jurisdiction pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, and is considering what, if any cleanup remedy is necessary and appropriate under CERCLA. The remedies available to EPA include cleanup actions that would overlap with the injunction Plaintiffs seek here. And the Attorney General's state court lawsuit seeking injunctive relief against the Bridgeton landfill seeks relief very similar to the injunction Plaintiffs demand here. An injunction in this case would therefore at best overlap, and at worst conflict with, the relief under consideration elsewhere. An injunction here would also risk subjecting defendants to multiple inconsistent obligations.

Separately, the City of St. Louis has a property interest in the Bridgeton landfill, in the form of a recorded negative easement, which prohibits a broad range of activities at the landfill (such as excavation of buried waste) in order to protect the safety of flight operations to and from the newest runway at Lambert Airport. That interest also may be affected by an injunction.

If the Court declines to dismiss the claim for injunctive relief pursuant to the abstention doctrine, then under Rules 19(a)(1)(B) and (a)(2), it should join EPA and the State of Missouri as parties plaintiff, and the City as a party defendant. At a minimum, under Rule 19(c) Plaintiffs should be required to state the reasons they have not joined all three as parties.

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Argument

1. The Court should abstain from entertaining the claim for an injunction.

A second reason to dismiss the claim for injunctive relief is the doctrine of Younger abstention.

The Supreme Court has recognized for decades that there are "classes of cases in which the withholding of authorized relief because of undue interference with state proceedings is 'the normal thing to do.'" *New Orleans Pub. Serv., Inc. v. Council of City of New Orleans*, 491 U.S. 350, 359 (1989) ("*NOPSI*"), quoting *Younger*, 401 U.S. at 45. As the Eighth Circuit has explained, the doctrine of abstention, of which Younger and its progeny are one variety, directs that "federal courts may properly exercise their traditional discretion to withhold equitable or quasi-equitable forms of relief." *Night Clubs Inc. v. City of Fort Smith, Ark.,* 163 F.3d 475, 479 (8th Cir. 1998) (*quoting NOPSI*, 491 U.S. at 359)).

Younger itself narrowly held that "[w]hen there is a parallel, pending state criminal proceeding, federal courts must refrain from enjoining the state prosecution." *Sprint Communications, Inc. v. Jacobs*, 134 S. Ct. 584, 588 (2013). But the Court soon extended the *Younger* holding based on the more expansive underlying rationale—"a proper respect for State functions, a recognition of the fact that the entire country is made up of a Union of separate state governments," 401 U.S. at 45—to encompass cases involving state civil enforcement proceedings. *Huffman v. Pursue supra.*; *see also Cedar Rapids Cellular Tel., L.P. v. Miller*, 280 F.3d 874, 879 (8th Cir. 2002). *Sprint* explained that *Younger* abstention is also appropriate in proceedings that implicate a state's interest in enforcing the orders and judgments of its courts. 134 S. Ct. at 588. *See also Banks v. Slay*, --- F.3d ---, 2015 WL 3797605, at *4 (8th Cir. June 19, 2015). Civil enforcement actions for which Younger abstention are appropriate "are characteristically initiated to sanction" a party for an allegedly wrongful act. *Sprint*, 134 St. Ct. at 592 (citations and quotations omitted). In these types of civil enforcement actions, "a state actor is routinely a party

to the state proceeding and often initiates the action." *Id.* (collecting cases for which *Younger* abstention was appropriate). "Investigations are commonly involved, often culminating in the filing of a formal complaint or charges." *Id. See also Huffman*, 420 U.S. at 595-98 (nuisance suit by city sheriff and prosecuting attorney under state law).

Until recently, the Eighth Circuit's cases used a three-prong test to determine whether *Younger* abstention is appropriate: (1) whether the underlying state action constituted an ongoing state judicial proceeding; (2) whether that proceeding implicates an important state interest; and (3) whether there is an adequate opportunity in the state proceeding to raise constitutional or other federal questions of law. *E.g., Night Clubs Inc. v. City of Fort Smith, Ark.*, 163 F.3d 475, 479 (8th Cir. 1998) (citing *Middlesex Cnty. Ethics Comm. v. Garden State Bar Ass'n*, 457 U.S. 423, 433-34 (1982)). That test was effectively abrogated by *Sprint*, which held that the Eighth Circuit test read *Middlesex* too broadly. 134 S. Ct. at 593. Instead, cases for which *Younger* abstention fall into one of the three categories enumerated above: criminal proceedings, civil enforcement proceedings, and proceedings that implicate a State's interest in enforcing the orders and judgments of its courts. *Id.* at 593-94. *See also, e.g., MPHJ Tech. Invs. LLC v. Sorrell*, --- F.Supp.3d ---, 2015 WL 3505224, at *2-*3 (D. Vt. June 3, 2015) (discussing *Sprint* and setting aside the prior Second Circuit *Younger* abstention test in favor of narrower criteria enumerated in *Sprint*).

The state enforcement proceeding filed by the Attorney General of Missouri against the same defendants as Plaintiffs sued here make this a textbook case for Younger abstention. *State v. Republic Services, Inc.*, Case No. 13SL-CC01088, (Ex. A) is an enforcement action filed by a state actor, the Missouri Attorney General. *Compare Sprint*, 134 S. Ct. at 592. The Attorney General's suit, which sounds in negligence, strict liability, public nuisance, and violations of various Missouri environmental laws, was "initiated to sanction" Bridgeton Landfill, LLC and Republic Services for the same alleged wrongs that the Plaintiffs here seek to redress – that is, the

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purportedly harmful effects of the subsurface smoldering reaction occurring beneath the Bridgeton Landfill. *Compare Sprint*, 134 S. Ct. at 592. That the Plaintiffs in the state action and this case are not the same is of no moment: the Eighth Circuit has held that the abstention doctrine applies even if the parties are not identical, "where the interests of the parties seeking relief in federal court are closely related to those of parties in pending state proceedings and where the federal action seeks to interfere with pending state proceedings." *Cedar Rapids Cellular Tel. L.P. v. Miller*, 280 F.3d 874, 881-82 (2002).

The possibility of an injunction in this case that interferes with a state court injunction addressing the same issues is serious. And, as their respective complaints show, the interests of the State and the Plaintiffs in this action are closely aligned. Both this action and the state court action center around allegations that Republic Services and/or Bridgeton Landfill, LLC have negligently allowed an alleged subsurface smoldering reaction (characterized by both the State and the federal Plaintiffs as a "fire") at the Bridgeton Landfill to perpetuate, thereby resulting in odors that allegedly are causing a nuisance under Missouri state law. *Compare* State Petition ¶¶ 17-20, 93, 96 *with* Class Action Complaint ¶¶ 1, 2, 5, 48-55. The Plaintiffs in both actions postulate a nascent risk that the so-called "fire" in one portion of the Bridgeton Landfill will migrate to another portion of the landfill that allegedly contains radioactive materials. *Compare* State Petition ¶¶ 14, 15, 50 *with* Class Action Complaint ¶ 4. And – critically – the Plaintiffs in both actions call for injunctive relief to address the alleged subsurface smoldering reaction and its alleged effects. *Compare* State Petition pp. 15, 20, 23-24, 26-30, 34-35, 37-38, 40-41, 44 *with* Class Action Complaint pp. 28-29.

Despite their explicit acknowledgement of the State's first-filed action against Republic Services and that action's claim for injunctive relief, Class Action Complaint ¶¶ 56-62, Plaintiffs nonetheless call generally for this Court to "grant an injunction requiring defendants to (1) extinguish the subsurface fire or completely abate its effects, and (b) eliminate all risk that the

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subsurface fire will ever reach and/or cause the dispersion of harmful and hazardous radioactive materials into the Class Area[.]" *Id.* at 29. Such an injunction would at the very best overlap, and more likely interfere, with any injunctive relief issued by the state court, impairing Missouri's interest in enforcing its environmental laws. *Cf. Arkansas Peace Center v. Arkansas Dep't of Pollution Control*, 992 F.2d 145, 147 (8th Cir. 1993) ("Defendants have also shown that they may suffer irreparable harm unless a stay is granted because their interests include the important public interest in protecting the environment[.]").

The Court should dismiss the claim for injunctive relief pursuant to the *Younger* abstention doctrine.

2. Plaintiffs have failed to join required parties.

A second, independent defect in Plaintiffs' demand for an injunction is their failure to join necessary parties under Rule 19.

Plaintiffs have added a request for injunctive relief in the First Amended Class Action Complaint: in particular, paragraph G of the Demand for Judgment asks the Court to "[g]rant an injunction requiring Defendants to (a) extinguish the subsurface fire or completely abate its effects, and (b) eliminate all risk that the subsurface fire will ever reach and/or cause the dispersion of harmful and hazardous radioactive materials into the Class Area." By adding this request, which was not included in the original complaint, Plaintiffs have implicated the rights of three non-parties, each of which should be joined.

Rule 19(a)(1)(B) provides in relevant part that a person "must be joined as a party if:

> (B) that person claims an interest relating to the subject of the action and is so situated that disposing of the action in the person's absence may:
>
> (i) as a practical matter impair or impede the person's ability to protect the interest; or

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(ii) leave an existing party subject to a substantial risk of incurring double, multiple, or otherwise inconsistent obligations because of the interest.

Rule 19 thus mandates the joinder of parties "who should or must take part in the litigation to achieve a just adjudication," *Lincoln Prop. Co. v. Roche*, 546 U.S. 81, 90 (2005), "even if the absent party is not technically bound by the outcome of the action." *In re Bridge Info. Sys., Inc.*, 288 B.R. 548, 555 (E.D. Mo. Aug. 24, 2001). A Rule 19(a)(1) inquiry focuses "'on the relief between the parties'" to the case. *Yankee Supply Co. v. Steven Cox, Inc.*, 2007 WL 892416, at *2 (E.D. Mo. Mar. 22, 2007) (quoting *LLC Corp. v. Pension Benefit Guar. Corp.*, 703 F.2d 301, 305 (8th Cir. 1983)). When considering Rule 19(a), this Court is to base its decision on the pleadings as they appear at the time of the proposed joinder. *Yankee Supply Co.*, 2007 WL 892416, at *2.

EPA, the State of Missouri, and the City of St. Louis each has an interest in this case now that Plaintiffs are seeking injunctive relief.

a. EPA's interest. The Bridgeton landfill is part of the larger West Lake landfill facility that has been under EPA jurisdiction since 1990, when the Agency added it to the National Priorities List pursuant to CERCLA. 55 Fed. Reg. 33502 (Aug. 30, 1990).[1] EPA issued a "Record of Decision" for the portion of the site including the Bridgeton landfill in July, 2008, (Ex. B) which generally provides that it "will be closed and monitored in accordance with Missouri solid waste regulations." Nevertheless, as the Missouri Department of Natural Resources has explained, "EPA is the lead agency for this site." Mo. Dept. Natural Resources West Lake Landfill Website <http://dnr.mo.gov/env/hwp/fedfac/westlakelandfill-ffs.htm> (last visited 11 Aug 2015).

[1] *See also* EPA, "Westlake Landfill Site Description," availableat <http://www.epa.gov/region07/cleanup/npl_files/mod079900932.pdf> (last visited 11 Aug 2015) ("Also located on the site is the Bridgeton Sanitary Landfill, which ceased operation in 2005.").

Under these circumstances, EPA plainly has an interest in the terms of an injunction that might issue in this case. The Court would ultimately decide whether to issue an injunction to address alleged problems at the Bridgeton landfill, and if so what the terms of injunction should be, based on a record assembled in the courtroom by only the parties to this case, a process that excludes non-parties from being meaningfully heard. EPA, on the other hand, will decide on a CERCLA remedy based on an administrative record, which will include not only evidence presented by private litigants that is admissible under the Federal Rules of Evidence, but also a much broader body of information submitted as part of the administrative process, including input from members of the public. *Compare* Fed. R. Evid. *with* 40 C.F.R. Part 300, Subpart E (setting forth "methods and criteria for determining the appropriate extent of response authorized by CERCLA"). It is unlikely—indeed, almost impossible—that those two very different means of presenting facts would result in identical records, and still less likely that different finders of fact would reach the same conclusion concerning the need for, or terms of, relief. Simply stated, there is too great a risk that EPA's interest in shaping a remedy at the Bridgeton landfill, if any were actually needed, would be impaired by an injunction that the Court might issue based on the record in this case. EPA should be joined as a plaintiff pursuant to Rule 19 (a)(1)(B)(i).

A closely related concern is that any injunction issued in this case would "present a substantial risk of incurring double, multiple, or otherwise inconsistent obligations" on the defendants, so Rule 19 (a)(1)(B)(ii) requires joinder of EPA as well. *See, e.g., Bohanna v. Hartford Life & Acc. Ins. Co.*, 848 F.2d 1009, 1016 (W.D. Mo. 2012) (quotations omitted) ("An inconsistent obligation occurs when a party is unable to comply with one court's order without breaching another court's order concerning the same incident."). Both subsections (i) and (ii) thus point in the same direction: if Plaintiffs are allowed to seek an injunction, EPA needs to be a party.

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b. State of Missouri's interest. As Plaintiffs themselves point out (Class Action Complaint ¶¶ 56-62), the State of Missouri has an action pending in the Circuit Court of St. Louis County that raises the same issues, and seeks very similar relief, to this case. *State of Missouri v. Republic Services, Inc., et al.,* Cir. Ct. St. Louis County, Missouri Case No. 13LS-CC01088. Ex. A. The injunctive relief the state seeks in that case parallels that sought by Plaintiffs here.

Plaintiffs in this case seek "an injunction requiring Defendants to (a) extinguish the subsurface fire or completely abate its effects, and (b) eliminate all risk that the subsurface fire will ever reach and/or cause the dispersion of harmful and hazardous radioactive materials into the Class Area." Class Action Complaint, Demand for Judgment, par. G. The State Petition is more detailed, but in substance asks for the same thing. In Count V of the State Petition, "Burning Solid Waste at a Sanitary Landfill" (Ex. A, pp. 30-31), for example, Missouri asks the state court to enter an order:

> A. Issuing a preliminary and permanent injunction prohibiting Defendants from any further violations of the Missouri Solid Waste Management Law and regulations;
>
> B. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to extinguish or otherwise address the burning of solid waste at the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, to address, to the State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

The same issues concerning EPA's interests discussed above apply to the State of Missouri's interest; if anything, the risk that the injunction Plaintiffs seek would impair the state's interests is even more acute. And the related Rule 19 (a) concern—that proceeding with the injunctive aspect of this case in the state's absence would leave defendants "subject to a substantial risk of incurring double, multiple, or otherwise inconsistent obligations"—is even more evident. Once again, the considerations of fairness to non-parties and to defendants

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embodied in Rule 19 (a) compel joinder of the State of Missouri if Plaintiffs are allowed to seek an injunction.

c. City of St. Louis' interest. The City of St. Louis has a different, but nevertheless real and significant, interest in any injunction requiring physical work at the Bridgeton landfill. The City has a property interest in the landfill, in the form of a negative easement that it purchased in 2005 as part of the expansion of Lambert-St. Louis International Airport. Ex. C (Certified copy of the recorded easement). The City paid $400,000 to buy that easement "in order to reduce or mitigate the potential harm to airport-related activities that could be caused by certain wildlife or birds on or from" Bridgeton landfill. (*Id.*, p. 2) As the Director of Airports explained in a letter to EPA's Regional Administrator last fall, in which she emphasized concerns about any work at the landfill that might expose buried waste:

> [T]he City holds a negative easement at the Bridgeton Landfill *** to ensure that the landfills in this area will not pose a bird hazard to aircraft. Putrescible waste attracts birds, which create a safety hazard to air navigation. Any new operation that exposes putrescible waste in such close proximity to the Airport could result in a new bird hazard to aircraft, impacting the safety of the 13 million plus passengers who fly in and out of the Airport every year.

Ex. D at 2 (Letter to Karl Brooks, Regional Administrator of EPA, from Rhonda Hamm-Niegruegge, Director of Airports, November 19, 2014)

Federal courts must be "particularly diligent" in their Rule 19 analyses "when a particular property right of [an] absent party is at issue." *In re Bridge Info. Sys., Inc.*, 288 B.R. 548, 555 (E.D. Mo. Aug. 24, 2001) (citing 4 Wright & Miller, Federal Practice & Procedure, § 1618 (3d ed. 1997)) Plaintiffs' generalized request for an injunction "to (a) extinguish the subsurface fire or completely abate its effects, and (b) eliminate all risk that the subsurface fire will ever reach and/or cause the dispersion of harmful and hazardous radioactive materials into the Class Area" contemplates at least the possibility of a "new operation that exposes putrescible waste," implicating the very interest that the City has sought to protect, both by purchasing a

property interest in the Bridgeton landfill and by voicing its concerns in the administrative record before EPA. If Plaintiffs are allowed to seek an injunction, the City of St. Louis should be made a party defendant.

Conclusion

The Court should dismiss the claim for injunctive relief. Alternatively, if Plaintiffs are allowed to seek an injunction, the Court should join EPA, the State of Missouri, and the City of St. Louis as parties.

Dated: August 14, 2015

Respectfully Submitted,

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CERTIFICATE OF SERVICE

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An Attorney for Defendant

IN THE CIRCUIT COURT OF ST. LOUIS COUNTY
STATE OF MISSOURI

STATE OF MISSOURI ex rel.,)
Attorney General Chris Koster and)
the Missouri Department of Natural)
Resources,)
)
Plaintiff,)
)
v.) Case No. 13SL-CC01088
)
REPUBLIC SERVICES, INC.) Div. 10
)
ALLIED SERVICES, LLC, d/b/a) Jury Trial Demanded
Republic Services of Bridgeton,)
)
and)
)
BRIDGETON LANDFILL, LLC,)
)
Defendants.)

First Amended Petition for Negligence, Strict Liability, Punitive Damages, Public Nuisance, Injunctive Relief, Civil Penalties, Cost Reimbursement and Natural Resource Damages

This action involves violations of the Missouri Solid Waste Management, Hazardous Waste Management, Clean Water, and Air Conservation Laws, as well as claims for negligence, strict liability, punitive damages, nuisance, costs, and natural resource damages. The State of Missouri, through its relators, states for its cause of action:

EXHIBIT A

Parties

1. Chris Koster is the duly elected, qualified, and acting Attorney General of Missouri ("Attorney General"). The Attorney General is authorized under § 27.060 RSMo[1] to bring, in the State's name, all civil proceedings at law or in equity necessary to protect the rights and interests of the State.

2. The Missouri Department of Natural Resources ("Department") is a state agency created under § 640.010 RSMo to administer the programs relating to environmental control and conservation and to manage the natural resources of the state of Missouri.

3. Attorney General Koster and the Department shall be collectively referred to as "the State" in this Petition unless specifically designated otherwise.

4. Republic Services, Inc., is a Delaware corporation with its principal place of business located in Phoenix, Arizona.

5. Allied Services LLC, d/b/a Republic Services of Bridgeton, is a Delaware limited liability company, with its principal place of business in Phoenix, Arizona. Allied Services LLC, d/b/a Republic Services of Bridgeton

[1] All statutory references shall be to the Missouri Revised Statutes 2000 unless specifically stated otherwise.

registered the fictitious name "Republic Services of Bridgeton" with the Missouri Secretary of State.

6. Bridgeton Landfill LLC is a Delaware limited liability company whose sole member is Allied Waste North America, Inc. Allied Waste North America, Inc.'s sole shareholder is Republic Services, Inc. Bridgeton Landfill LLC's principal place of business is located at 13570 St. Charles Rock Road in Bridgeton, St. Louis County, Missouri.

Jurisdiction and Venue

7. This court has jurisdiction over the subject matter and the parties in this case pursuant to §§ 27.060 and 526.010 RSMo. Venue is proper in this court pursuant to § 508.010 RSMo because Defendants' conduct giving rise to this action took place in St. Louis County, and because Plaintiff's injury first occurred in St. Louis County.

Allegations Common to All Counts

Corporate Structure

8. Defendant Republic Services, Inc., is the parent company of Defendant Allied Services LLC, d/b/a Republic Services of Bridgeton.

9. Defendants Allied Services LLC, d/b/a Republic Services of Bridgeton, own and/or operate the Bridgeton Sanitary Landfill, which is located at 13570 St. Charles Rock Road in Bridgeton, St. Louis County, Missouri.

10. Defendants and/or their predecessors-in-interest have owned and/or operated the Bridgeton Sanitary Landfill at least since its inception through the present.

History of the Bridgeton Sanitary Landfill

11. The State of Missouri, through the Missouri Department of Natural Resources, regulates the Bridgeton Sanitary Landfill. The Department initially permitted the West Lake Landfill, Inc. Sanitary Landfill as No. 118912 on November 18, 1985. On December 30, 1997, the Department approved a permit modification to Bridgeton Landfill, LLC. The Bridgeton Sanitary Landfill stopped accepting waste on or about December 31, 2004.

12. The Bridgeton Sanitary Landfill is an unlined former rock quarry that was filled with residential and commercial waste, in addition to other waste sources.

13. The Bridgeton Sanitary Landfill lies within the boundaries of the West Lake Landfill Superfund Site.

14. The West Lake Landfill Superfund Site contains a significant amount of illegally deposited radioactive waste.

15. The Bridgeton Sanitary Landfill contains materials that are radiologically impacted, radioactive and/or emit radiation.

16. The allegations in this petition arise as a consequence of violations of law at the Bridgeton Sanitary Landfill.

Subsurface Smoldering Event/Fire at the Bridgeton Sanitary Landfill

17. In December 2010, some or all of the Defendants first reported to the Department that the Bridgeton Sanitary Landfill was experiencing elevated temperatures on some methane gas extraction wells, evidencing what was described as a "subsurface smoldering event."

18. Since December 2010, the subsurface smoldering event/fire has intensified as evidenced by rapid surface soil and landfill debris settlement, increased odors, elevated gas levels, and high landfill temperatures.

Effects of the Subsurface Smoldering Event/Fire

19. Beginning in or around July 2012, the State began receiving numerous complaints from nearby residents and businesses about the odor emitted by the Bridgeton Sanitary Landfill.

20. Since at least July 2012, the Bridgeton Sanitary Landfill has continued to create odors that undermine the quality of life for people living and working near the landfill.

21. Since at least August 2012 when the State began monitoring the ambient air surrounding the Bridgeton Sanitary Landfill, the Bridgeton Sanitary Landfill has emitted harmful substances into the air such as benzene, hydrogen sulfide, sulfur dioxide, carbon monoxide, acetaldehyde and

1,2,4 trimethylbenzene. These chemicals are a threat to human health and the environment.

22. On at least one occasion in February 2013, black leachate flowed out of the Bridgeton Sanitary Landfill's leachate collection system onto the surface of the ground. The flowing leachate entered a forested area and an intermittent stream near the Bridgeton Sanitary Landfill.

23. In addition, leachate has been and is collecting in the subsurface of the landfill, traveling into the limestone rock that makes up the base and sides of the landfill, and flowing into groundwater.

24. Leachate from the Bridgeton Sanitary Landfill has been and frequently is a characteristic "hazardous waste" as that term is defined by § 260.360(11) RSMo.

25. Since in or around January 2011, the Bridgeton Sanitary Landfill has generated approximately 150,000 gallons of leachate each day.

26. Because the leachate is hazardous waste, Defendants are treating the leachate on site before transporting it to disposal facilities in Missouri and Illinois.

27. The Bridgeton Sanitary Landfill generates "hazardous waste," as that term is defined by § 260.360(12) RSMo.

28. Defendants are hazardous waste "generators," as that term is defined by § 260.360(10) RSMo.

29. Leachate from the Bridgeton Sanitary Landfill is a "water contaminant" as that term is defined in § 644.016(23) RSMo.

30. The Bridgeton Sanitary Landfill is a "water contaminant source" or "point source," as those terms are defined by §§ 644.016(24) and (15) RSMo.

31. Surface water and groundwater surrounding and under the Bridgeton Sanitary Landfill are "waters of the state" as that term is defined by § 644.016 RSMo.

Republic Services, Inc.'s Control of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton and the Bridgeton Sanitary Landfill – Agency Liability

32. At all times relevant herein, Defendant Republic Services, Inc. directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton and the day-to-day operations of the Bridgeton Sanitary Landfill. This includes direct control over when the decision was made to report the subsurface smoldering event/fire to the Department, the Defendants' actions in response to evidence indicating that there may be a subsurface smoldering event/fire at the landfill, the subsurface smoldering event/fire itself, and direct control over the management of gases, odors, hazardous wastes, water pollutants, air pollutants, and leachate being generated by or emanating from the Bridgeton Sanitary Landfill.

Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton are the alter ego and mere instrumentality of Republic Services, Inc. – Veil Piercing

33. As the parent corporation of Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton, Republic Services, Inc. completely dominates the finances, control, and business practices of Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton such that neither company has a separate mind or existence of its own.

34. On information and belief, Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton have inadequate assets compared to the potential environmental liability and threat to human health posed by the Bridgeton Sanitary Landfill.

35. On information and belief, Republic Services, Inc., and/or its predecessors-in-interest intentionally maintained Bridgeton Landfill LLC in an undercapitalized state in an attempt to insulate itself from full financial responsibility for the environmental and human health hazard caused by the Bridgeton Sanitary Landfill.

36. Defendant Republic Services, Inc., either directly or indirectly, has completely financed Defendants' response to the subsurface smoldering event/fire, in addition to the management of water pollutants, leachate, air pollution, gas, and odors emanating from the landfill.

37. Defendant Republic Services, Inc., has paid, directly or indirectly, to the Department, a portion of the Department's oversight costs related to the Bridgeton Sanitary Landfill.

38. At all times relevant herein, Defendant Republic Services, Inc., has maintained complete operational control over Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and the Bridgeton Sanitary Landfill.

39. At all times relevant herein, individuals employed directly by Defendant Republic Services, Inc., have maintained direct operational/managerial control over the day-to-day operation/management of Bridgeton Landfill LLC, the Bridgeton Sanitary Landfill, Defendants' response to the subsurface smoldering event/fire, and the management of odors, air pollution, water pollution, hazardous waste, and leachate emanating from the Bridgeton Sanitary Landfill.

40. Defendant Republic Services, Inc., through its website and press releases to the media, holds itself out to the public as being the legal entity responsible for remediation of the environmental pollutants emanating from the Bridgeton Sanitary Landfill.

41. The violations of Missouri's environmental laws, the negligent acts of the Defendants, and the nuisance caused by Defendants' actions as set forth herein, all occurred during a time when Republic Services, Inc.

completely dominated the finances, control, and decision-making of Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton, and the management of the Bridgeton Sanitary Landfill itself, such that Bridgton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton are each the alter ego of Republic Services, Inc.

42. Republic Services, Inc.'s control of Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton was used to promote abuse of corporate privilege and injustice in contravention of the State's rights and obligations regarding its natural resources.

43. The State and its citizens have and will continue to suffer significant financial harm as a result of Defendants' actions.

44. Republic Services, Inc., Bridgeton Landfill LLC, and Allied Services LLC, d/b/a Republic Services of Bridgeton have such a unity of interest and operations that if their acts are treated as the acts of Bridgeton Landfill LLC and Allied Services LLC, d/b/a Republic Services of Bridgeton alone, the State and its citizens will suffer an inequitable and unjust result.

Count I - Negligent Failure to Isolate, Contain, Suppress, Inhibit and/or Extinguish the Landfill Fire

45. The previous allegations are incorporated into this count as though fully set forth herein.

46. Defendants' landfill is located in one of the most densely populated areas in the State of Missouri.

47. Defendants' landfill contains hazardous wastes and hazardous substances.

48. A recent EPA report indicated that the North Quarry of the Bridgeton Sanitary Landfill contains radiologically impacted materials, radioactive materials and/or materials that emit radiation.

49. Defendant Republic Services, Inc., has experienced prior subsurface smoldering events/fires at landfills Republic Services, Inc., and/or its subsidiaries or predecessors-in-interest own/operate in at least Ohio, Illinois, Tennessee, and California.

50. As the owner/operator of a landfill such as the Bridgeton Sanitary Landfill, it is reasonably foreseeable that if immediate steps are not taken to isolate, contain, suppress, inhibit, and/or extinguish a subsurface smoldering event/fire, that the smoldering event/fire will likely spread throughout the landfill and intensify, causing the release of hazardous gases, contaminated leachate, noxious odors, groundwater pollution, and soil pollution, in addition to the potential for off-site migration of radioactive or radiologically impacted materials and/or materials that emit radiation.

51. Due to its experience with prior subsurface smoldering events/fires at landfills owned/operated by Defendant Republic Services, Inc.,

its subsidiaries, or predecessors-in-interest, Defendant Republic Services, Inc., knew, or should have known, that if immediate steps were not taken to isolate, contain, suppress, inhibit, and/or extinguish the subsurface smoldering event/fire at the Bridgeton Sanitary Landfill, the event could cause significant harm to human health, the environment and property.

52. Due to its experience with prior subsurface smoldering events/fires at landfills owned/operated by Defendant Republic Services, Inc., its subsidiaries, or predecessors-in-interest, Defendant Republic Services, Inc., knew, or should have known, that a subsurface smoldering event/fire would result in a substantial increase in the volume of leachate emanating from the landfill.

53. Due to the foreseeability of the threat to human health, the environment and property caused by a subsurface smoldering event/fire at the Bridgeton Sanitary Landfill, Defendants had a duty to immediately take any and all actions necessary to isolate, contain, suppress, inhibit, and/or extinguish a subsurface smoldering event/fire.

54. Due to the foreseeability of increased leachate production caused by a subsurface smoldering event/fire, Defendants had a duty to immediately take any and all actions necessary to prevent significant harm to human health, the environment and property caused by excessive landfill leachate.

55. Due to elevated temperature and changes in gas readings, including but not limited to a decrease in methane, Defendants knew, or should have known, prior to or at least by December 2010, that the Bridgeton Sanitary Landfill was experiencing a subsurface smoldering event/fire.

56. Defendants breached their duty of care by failing to take immediate actions to isolate, contain, suppress, inhibit, and/or extinguish the subsurface smoldering event/fire.

57. Defendants breached their duty of care by failing to take immediate actions to address the foreseeable increased volume of leachate caused by a subsurface smoldering event/fire.

58. Defendants' failure to take immediate actions to address the increased volume of leachate, and to isolate, contain, suppress, inhibit and/or extinguish the subsurface smoldering event/fire was willful, wanton, and was done with reckless disregard for the safety of the surrounding community and the natural resources of the State.

59. Defendants' failure to take immediate action to isolate, contain, suppress, inhibit, and/or extinguish the subsurface smoldering event/fire at least by December 2010 or immediately thereafter caused the subsurface smoldering event/fire at the Bridgeton Landfill to expand in scope, intensity, depth, and distance.

60. Defendants' failure to take immediate and necessary actions to address the increased volume of leachate caused by the subsurface smoldering event/fire caused substantial pollution of the State's natural resources, including, but not limited to air pollution, pollution of the waters of the State, ground and soil pollution, and the release of noxious odors.

61. The subsurface smoldering event/fire at the Bridgeton Sanitary Landfill has resulted in substantial pollution of the State's natural resources, including, but not limited to air pollution, pollution of the waters of the State, ground and soil pollution, and the release of noxious odors.

62. As a result of Defendants' negligence, the State has incurred significant damage to its natural resources. Furthermore, Defendants' negligence has caused the State to incur unreimbursed oversight costs, including but not limited to costs related to remedial actions in response to the subsurface smoldering event/fire, costs to retain outside experts and consultants, and attorneys' fees.

63. Due to Defendants' failure to isolate, contain, suppress, inhibit and/or extinguish the subsurface smoldering event/fire, the subsurface smoldering event/fire continues to burn, causing continued air, surface water, ground water, and ground pollution to the State's natural resources, in addition to the release of noxious odors.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Awarding compensatory damages to Plaintiff in an amount to be determined at trial, including but not limited to full reimbursement for the costs and expenses incurred by the State, compensatory damages for injury to the State's natural resources including the lost use of the resources in addition to all costs associated with remediating the environmental harm, and all additional compensatory damages caused by the air, ground, water, and odor pollution;

B. Awarding punitive damages to Plaintiff in an amount to be determined at trial;

C. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

D. Granting any such further relief as may be just and proper.

Count II - Negligent Failure to Properly Operate and Maintain the Gas Collection and Control System

64. The previous allegations are incorporated into this count as though fully set forth herein.

65. The level of oxygen introduced into the waste mass at Defendants' landfill can be controlled in part by the proper operation, maintenance, and management of gas collection and control systems, including gas extraction wells, and through the maintenance of an adequate soil cover or cap over and along the sides of the waste mass to prevent the intrusion of oxygen.

66. Elevated levels of oxygen made available to the waste mass of a landfill significantly increases the risk of a subsurface smoldering event/fire.

67. Defendants knew, or should have known, that failure to maintain oxygen levels within landfill infrastructure and/or in the landfill at or below a level that would prevent the cause or spread of a subsurface smoldering event/fire could contribute to the cause or spread of a subsurface smoldering event/fire.

68. Defendants knew, or should have known, that failure to maintain an adequate soil cover or cap over and along the sides of the waste mass could cause, or contribute to the spread of a subsurface smoldering event/fire.

69. Defendants knew, or should have known, that failure to properly operate and maintain gas control measures at the landfill could cause or contribute to the spread of a subsurface smoldering event/fire.

70. Due to the foreseeability of the threat to human health, property, and the environment caused by a subsurface smoldering event/fire at the Bridgeton Sanitary Landfill, Defendants had a duty to operate and maintain the landfill's gas collection and control system to minimize oxygen levels in the Bridgeton Sanitary Landfill to a level that would prevent the cause or spread of a subsurface smoldering event/fire.

71. Due to elevated temperatures and changes in gas levels, including but not limited to a decrease in methane, Defendants knew, or should have known prior to or at least by December 2010 that the Bridgeton Sanitary Landfill was experiencing a subsurface smoldering event/fire.

72. Prior to and at least by December 2010 and continuing through present, Defendants breached their duty of care by failing to maintain oxygen levels within the Bridgeton Sanitary Landfill at or below a level that would prevent the cause or spread of a subsurface smoldering event/fire. Specifically, Defendants:

A. Failed to operate and maintain the facility's gas collection and control system in a manner to minimize oxygen at or below a level

that would prevent the cause or spread of a subsurface smoldering event/ fire;

B. Failed to ensure gas collection and control system components were timely and properly returned to working order when exposed to and/or damaged by the subsurface smoldering event/fire, including the corresponding increased temperature, pressure, gas, and leachate levels; and

C. Failed to maintain an adequate soil cover or cap over and along the sides of the waste mass.

73. Defendants' failure to maintain oxygen levels at or below a level that would prevent the cause or spread of a subsurface smoldering event/fire, and to ensure timely repair of gas collection and control system components was willful, wanton, and was done with reckless disregard for the safety of the surrounding community, property, and the natural resources of the State.

74. Defendants' failure to maintain oxygen levels in the landfill at or below a level that would prevent the cause or spread of a subsurface smoldering event/fire caused or contributed to cause the subsurface smoldering event/fire at the Bridgeton Landfill.

75. Defendants' failure to maintain oxygen levels in the landfill at or below a level that would prevent the cause or spread of a subsurface smoldering event/fire caused or contributed to cause the subsurface

smoldering event/fire at the Bridgeton Landfill to expand in scope, intensity, depth, and distance.

76. The subsurface smoldering event/fire at the Bridgeton Sanitary Landfill has resulted in substantial pollution of the State's natural resources, including, but not limited to, air pollution, pollution of the waters of the State, ground and soil pollution, and the release of noxious odors.

77. As a result of Defendants' negligence, the State has incurred significant damage to its natural resources. Furthermore, Defendants' negligence has caused the State to incur unreimbursed oversight costs, including but not limited to costs related to remedial actions in response to the subsurface smoldering event/fire, costs to retain outside experts and consultants, and attorneys fees.

78. Due to Defendants' failure to maintain oxygen levels at or below the levels required to prevent the cause or spread of a subsurface smoldering event/fire, the subsurface smoldering event/fire continues to burn, causing continued air, surface water, ground water, and ground pollution to the State's natural resources, in addition to the release of noxious odors.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Awarding compensatory damages to Plaintiff in an amount to be determined at trial, including but not limited to full

reimbursement for the costs and expenses incurred by the State, compensatory damages for injury to the State's natural resources including the lost use of the resources in addition to all costs associated with remediating the environmental harm, and all additional compensatory damages caused by the air, ground, water, and odor pollution;

B. Awarding punitive damages to Plaintiff in an amount to be determined at trial;

C. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

D. Granting any such further relief as may be just and proper.

Count III - Strict Liability/Ultra-Hazardous Activity

79. The previous allegations are incorporated into this count as though fully set forth herein.

80. As noted above, the Bridgeton Sanitary Landfill contains hazardous materials, and recent reports indicate that the landfill contains materials that are radiologically impacted, radioactive and/or emit radiation.

81. The Bridgeton Sanitary Landfill is also located immediately adjacent to the Operable Unit 1, Area 1 of the West Lake Landfill Superfund Site, which contains radioactive waste.

82. The Bridgeton Sanitary Landfill is located in a densely populated commercial and residential area, and in the immediate vicinity of a public high school, middle school, and elementary school.

83. Since at least December 2010 and continuing through present, the subsurface smoldering event/fire at the Bridgeton Sanitary Landfill has been producing hazardous gases, noxious odors, and ground and water pollution.

84. Maintaining a landfill in a densely populated area containing hazardous substances and radioactive materials, and that is located immediately adjacent to a site containing radioactive waste creates a high degree of risk of harm to human health, property and the State's natural resources.

85. Maintaining a landfill in a densely populated area with a subsurface smoldering event/fire containing hazardous substances and radioactive material, that is located immediately adjacent to a site containing

radioactive waste, and that produces highly toxic gases, air, water, and ground pollution, in addition to noxious odors creates a high degree of risk of harm to human health, property and the State's natural resources.

86. To date, Defendants have been unable, or have intentionally failed to eliminate the risk of the air, water, and ground pollution emanating from the Bridgeton Sanitary Landfill, in addition to the risk of the release of radioactive materials if the subsurface smoldering event/fire reaches radiologically impacted materials.

87. The Bridgeton Sanitary landfill does not create any benefit for the local community or the State of Missouri. The Bridgeton Sanitary Landfill is inactive, and no longer accepts waste.

88. Therefore, the risk of harm posed by the Bridgeton Sanitary Landfill far outweighs its value.

89. Since at least December 2010, the Bridgeton Sanitary Landfill, and the noxious odors, gases, elevated temperatures, and hazardous leachate emanating from the landfill have caused significant damage to the natural resources of the State.

90. As a result of the noxious odors, hazardous materials, and other pollutants emanating from the Defendants' landfill, the State has incurred significant damage to its natural resources. Furthermore, the subsurface smoldering event/fire at Defendants' landfill has caused the State to incur

unreimbursed oversight costs, including but not limited to costs related to remedial actions in response to the subsurface smoldering event/fire, costs to retain outside experts and consultants, and attorneys fees.

91. Due to the abnormally dangerous and ultra hazardous nature of the Bridgeton Sanitary Landfill, Defendants are strictly liable for all environmental harm caused by its existence and operation.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Awarding compensatory damages to Plaintiff in an amount to be determined at trial, including but not limited to full reimbursement for the costs and expenses incurred by the State, compensatory damages for injury to the State's natural resources including the lost use of the resources in addition to all costs associated with remediating the environmental harm, and all additional compensatory damages caused by the air, ground, water, and odor pollution;

B. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic

Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

C. Granting any such further relief as may be just and proper.

Count IV - Causing a Public Nuisance and Odor Pollution

92. The previous allegations are incorporated into this count as though fully set forth herein.

93. A public nuisance is any unreasonable interference with the rights common to all members of the community in general and encompasses the public health, safety, peace, morals, or convenience of society.

94. The subsurface smoldering event/fire at the Bridgeton Sanitary Landfill emits noxious odors and hazardous substances into the surrounding air, ground and water.

95. Contaminated leachate emanating from the Bridgeton Sanitary Landfill has caused contamination of the waters of the State of Missouri, in addition to contamination of the ground and soil in the area surrounding the Bridgeton Sanitary Landfill.

96. The noxious odors and emissions caused by the subsurface smoldering event/fire unreasonably interfere with the quality of life of residents, businesses, business patrons and employees, and the citizens of the State.

97. The noxious odors and emissions caused by the subsurface smoldering event/fire unreasonably interfere with residents and business owners' use and enjoyment of their property.

98. In addition, since at least December 23, 2010, Defendants have violated Missouri's environmental laws, including the Missouri Solid Waste Management, Hazardous Waste Management, Clean Water, and Air Conservation Laws, as described in the counts below.

99. Defendants' violations of Missouri's environmental laws have unreasonably interfered with the rights common to the Bridgeton community and the State's citizens.

100. Defendants' violations of Missouri's environmental laws and the negligent acts of Defendants as set forth herein have caused significant damage to the State's natural resources in the form of air, ground, and water pollution.

101. Defendants are causing a public nuisance that defeats the rights of the State's citizens and the community in general, and must be enjoined.

102. Missouri Air Conservation Regulation 10 CSR 10-6.165 makes it unlawful for any person to cause, permit, or allow the emission of odorous matter in certain concentrations and frequencies or for certain durations so as to violate the regulatory standard.

103. On January 31, 2013, and multiple dates thereafter, through the burning of solid waste in the Bridgeton Sanitary Landfill, Defendants violated 10 CSR 10-6.165 by causing, permitting, or allowing the emission of odorous matter in excessive concentrations, frequencies, and durations so as to violate the regulatory standard.

104. Section 643.151.3 RSMo authorizes injunctive relief and a civil penalty not to exceed $10,000 per day for each day, or part thereof, that each violation of the Missouri Air Conservation Law occurs or continues to occur.

105. Because the subsurface smoldering event/fire at the Bridgeton Sanitary Landfill continues to emit noxious odors, emissions, and cause significant damage to the State's natural resources, a monetary award for future damages will not adequately address the State's harm, and the State will suffer irreparable injury if an injunction is not granted.

106. As noted above in Counts I and II, Defendants acted with willful, wanton, and reckless disregard for the safety of the Bridgeton community and the natural resources of the State by failing to take immediate actions to isolate, contain, suppress, inhibit, and/or extinguish the subsurface smoldering event/fire when Defendants first discovered, or should have discovered, that there was a subsurface smoldering event/fire at the Bridgeton Sanitary Landfill, by failing to properly operate and maintain the gas collection and control system, by failing to maintain an adequate soil

cover or cap over and along the sides of the waste mass, and by failing to take appropriate measures to address increased leachate volumes.

107. Section 526.030 RSMo authorizes this court to enter an injunction to prevent "the doing of any legal wrong whatever, whenever in the opinion of the court an adequate remedy cannot be afforded by an action for damages."

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction prohibiting Defendants from causing a public nuisance;

B. Awarding compensatory damages to Plaintiff in an amount to be determined at trial, including but not limited to full reimbursement for the costs and expenses incurred by the State, compensatory damages for the injury to the State's natural resources including but not limited to the lost use of the resources in addition to all costs associated with remediating the environmental harm, and all additional compensatory damages caused by the air, ground, water and odor pollution;

C. Awarding punitive damages to Plaintiff in an amount to be determined at trial;

D. Issuing a preliminary and permanent injunction ordering

Defendants to take all appropriate interim steps to mitigate the impact of the nuisance on residents, businesses, business patrons, and the environment until such time as the nuisance can be fully abated, including but not limited:

i. Assuring the safety of workers;

ii. Addressing the needs of those who have medical afflictions or whose medical afflictions have been aggravated, as a result of the nuisance; and

iii. Providing methods by which indoor air quality can be protected;

E. Issuing a preliminary and permanent injunction ordering Defendants to develop plans for the abatement of the nuisance caused by the conditions at the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, and to fully implement any plans that have been or will be approved by the State for the abatement of the nuisance caused by the conditions at the Bridgeton Sanitary Landfill;

F. Issuing a preliminary and permanent injunction requiring Defendants to take immediate steps to capture and control the odor emitted from the Bridgeton Sanitary Landfill;

G. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to eliminate the ongoing odor violation at the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, to address, to the State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans; and fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

H. Assessing against Defendants a civil penalty in an amount up to $10,000 per day for each day, or part thereof, that Defendants violated the Missouri Air Conservation Law pursuant to § 643.151 RSMo;

I. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

J. Granting such other relief as may be just and proper.

Count V - Burning Solid Waste at a Sanitary Landfill

108. The previous allegations are incorporated into this count as though fully set forth herein.

109. Missouri Solid Waste Management Law and Regulation 10 CSR 80-3.010(13)(C) imposes strict liability on Defendants and prohibits burning solid waste at a sanitary landfill.

110. Since at least December 2010 and continuing through present, Defendants have violated 10 CSR 80-3.010(13)(C) because solid waste continues to burn at the Bridgeton Sanitary Landfill.

111. Section 260.240.1 RSMo authorizes injunctive relief and the assessment of a civil penalty not to exceed $5,000.00 per day for each day or part thereof, that a violation occurs.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction prohibiting Defendants from any further violations of the Missouri Solid Waste Management Law and regulations;

B. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to extinguish or otherwise address the burning of solid waste at the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, to address, to the

State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

C. Assessing against Defendants a civil penalty in an amount up to $5,000 per day for each day, or part thereof, that Defendants violated the Missouri Solid Waste Management Law pursuant to § 260.240.1 RSMo;

D. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

E. Granting such other relief as may be just and proper.

Count VI - Exceeding Methane Gas Limits

112. The previous allegations are incorporated into this count as though fully set forth herein.

113. Missouri Solid Waste Management Law and Regulation 10 CSR 80-3.010(14)(C)2 prohibits methane gas from exceeding 2.5% by volume in the soil at the landfill property boundary.

114. Since at least December 2010, Defendants have violated 10 CSR 80-3.010(14)(C)2 on multiple days by exceeding 2.5% by volume of methane gas in the soil at Bridgeton Sanitary Landfill's property boundary.

115. Section 260.240.1 RSMo authorizes injunctive relief and the assessment of a civil penalty not to exceed $5,000 per day for each day, or part thereof, that a violation occurs.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction prohibiting Defendants from any further violations of the Missouri Solid Waste Management Law and regulations;

B. Issuing a preliminary and permanent injunction requiring Defendants to reevaluate and fully fund corrective action financial assurance instruments that account for changing conditions at the Bridgeton Sanitary Landfill;

C. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to reduce methane levels to below regulatory limits at the Bridgeton Sanitary Landfill, to submit those

plans to the State for review and approval, to address, to the State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

D. Assessing a civil penalty against Defendants in an amount up to $5,000 per day for each day, or part thereof, that Defendants violated the Missouri Solid Waste Management Law pursuant to § 260.240.1 RSMo;

E. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

F. Granting such other relief as may be just and proper.

Count VII - Causing Pollution of Waters of the State

116. The previous allegations are incorporated into this count as though fully set forth herein.

117. Section 644.051.1(1) RSMo makes it unlawful for any person to cause pollution of any waters of the state or to place or cause or permit to be

placed any water contaminant in a location where it is reasonably certain to cause pollution of any waters of the state.

118. The leachate contains water contaminants.

119. Since in or around February 2013 Defendants have violated § 644.051.1(1) RSMo by causing or permitting contaminated leachate to be placed in a location where it was reasonably certain to cause pollution to waters of the State.

120. Leachate has escaped the surface of the landfill and flowed on the ground and into waters of the state.

121. Leachate is collecting in the subsurface of the landfill, traveling into the limestone rock that makes up the bed and sides of the landfill, and flowing into groundwater.

122. Section 644.076.1 RSMo authorizes injunctive relief and a civil penalty not to exceed $10,000 per day for each day, or part thereof, that each violation of the Missouri Clean Water Law occurs or continues to occur.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction requiring Defendants to immediately undertake an evaluation and remediation program for repair and maintenance of the Bridgeton Sanitary Landfill's leachate collection system;

B. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to prevent the flow of leachate out of the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, to address, to the State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

C. Assessing against Defendants a civil penalty in an amount up to $10,000 per day for each day, or part thereof, that Defendants violated the Missouri Clean Water Law pursuant to § 644.076 RSMo;

D. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

E. Granting such other relief as may be just and proper.

Count VIII - Improperly Handling Hazardous Waste

123. The previous allegations are incorporated into this count as though fully set forth herein.

124. Section 260.380 RSMo makes it unlawful for any hazardous waste generator to store, containerize, label, and transport hazardous waste in violation of the Missouri Hazardous Waste Management Law.

125. Regulation 10 CSR 25-5.262, which incorporates by reference 40 CFR 262.11, requires all persons who generate a solid waste, such as landfill leachate, to determine if the waste is hazardous and, if hazardous, store, containerize, label, and transport it properly.

126. From on or about May 15, 2012, to at least on or about October 26, 2012, the Metropolitan Sewer District of St. Louis (MSD) tested leachate from the Bridgeton Sanitary Landfill and determined that it was contaminated with benzene.

127. Sometime in or around December 2012, MSD ordered Defendants to cease discharging landfill leachate into its municipal wastewater treatment system.

128. Leachate produced by the Bridgeton Sanitary Landfill is a hazardous waste.

129. On information and belief, Defendants began shipping untreated or undertreated landfill leachate to multiple facilities in the United States and Canada, including the American Bottoms Regional Wastewater Treatment Facility in Sauget, Illinois, for treatment.

130. From on or around January 10, 2013 through on or around April 15, 2013, Defendants violated § 260.380 RSMo and 10 CSR 25-5.262(1) by storing, containerizing, failing to label, and transporting hazardous waste improperly.

131. From on or around January 10, 2013 through on or around April 15, 2013, Defendants violated 10 CSR 25-5.262 by failing to perform a hazardous waste determination on leachate produced and/or collected from the Bridgeton Sanitary Landfill.

132. Section § 260.425 RSMo authorizes injunctive relief and a civil penalty not to exceed $10,000 per day for each day, or part thereof, that each violation of the Missouri Hazardous Waste Management Law occurs or continues to occur.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction requiring Defendants to immediately characterize the leachate and any resulting waste from the Bridgeton Sanitary Landfill both pre- and post-onsite treatment;

B. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to manage the leachate from the Bridgeton Sanitary Landfill in accordance with the Missouri Hazardous Waste

Management Law, to submit those plans to the State for review and approval, to address, to the State's satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

C. Assessing against Defendants a civil penalty in an amount up to $10,000 per day for each day, or part thereof, that Defendants violated the Missouri Hazardous Waste Management Law pursuant to § 260.245 RSMo;

D. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

E. Granting such other relief as may be just and proper.

Count IX - Storing Solid Waste in a Manner that Violates the Law, Creates a Public Nuisance, and Adversely Affects Public Health

133. The previous allegations are incorporated into this count as though fully set forth herein.

134. Section 260.210.1(4) RSMo and 10 CSR 80-2.020(1)(F) make it unlawful for any person to store, collect, transport, process, or dispose of solid waste in violation of the rules, regulations or orders of the Department or in such a manner as to create a public nuisance or adversely affect the public health.

135. Since in or around December 2010, Defendants have violated § 260.210.1(4) RSMo by storing, collecting, transporting, processing, or disposing of solid waste at the Bridgeton Sanitary Landfill in violation of 10 CSR 80-3.010(13)(C), 10 CSR 80-3.010(14)(C)2, and 10 CSR 80-3.010(19)(A) and other regulations of the Department. Among other actions, Defendants have:

A. Stored, processed, or disposed of solid waste in the Bridgeton Sanitary Landfill in a manner that allowed the waste to ignite and continue to combust and burn in violation of Department regulations;

B. Stored, processed, or disposed of solid waste in a manner that allowed methane levels to exceed regulatory limits;

C. Stored, processed, or disposed of solid waste at the Bridgeton Sanitary Landfill in a manner that caused a violation of regulatory odor limits;

D. Collected, stored, processed, transported, or disposed of leachate in violation of Bridgeton Sanitary Landfill Permit No. 118912.

136. Since in or around December 2010, Defendants have violated § 260.210.1(4) RSMo by storing, collecting, transporting, processing, or disposing of solid waste at the Bridgeton Sanitary Landfill in a manner as to create a public nuisance or adversely affect the public health. Among other actions, Defendants have stored, processed, or disposed of solid waste in the Bridgeton Sanitary Landfill in a manner that allowed the waste to ignite and continue to combust, which created a nuisance and adversely affects the public health.

137. Section 260.240.1 RSMo authorizes injunctive relief and the assessment of a civil penalty not to exceed $5,000 per day for each day, or part thereof, that a violation occurs.

WHEREFORE, the State asks this Court to enter its Judgment and Order against Defendants as follows:

A. Issuing a preliminary and permanent injunction ordering Defendants to develop plans to abate all environmental violations at the Bridgeton Sanitary Landfill and eliminate all conditions that create a public nuisance or adversely affect public health as a result of the conditions at the Bridgeton Sanitary Landfill, to submit those plans to the State for review and approval, to address, to the State's

satisfaction, any deficiencies or concerns identified by the State in its review of the plans, and to fully implement any plans that have been or will be approved by the State for the Bridgeton Sanitary Landfill;

B. Assessing against Defendants a civil penalty in an amount up to $5,000 per day for each day, or part thereof, that Defendants violated the Missouri Solid Waste Management Law pursuant to § 260.240.1 RSMo;

C. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

D. Granting such other relief as may be just and proper.

Count X—Natural Resource Damages & Cost Recovery

138. The previous allegations are incorporated into this count as though fully set forth herein.

139. Under § 260.210(5) RSMo, the State may recover cleanup costs whenever it determines that a person has benefitted financially from dumping solid waste into waters of the state, storing solid waste in a manner

that violates the Missouri Solid Waste Management Law and regulations, storing solid waste in a manner that causes a public nuisance, and causing odor violations under the Missouri Air Conservation Law, in violation of § 260.210 RSMo.

140. Under § 644.096 RSMo, the State has a cause of action for damages against any person violating the provisions of §§ 644.006 to 644.141 RSMo, including all costs and expenses necessary to establish or collect any sums under the Missouri Clean Water Law and the costs and expenses of restoring any waters of the state to their condition as they existed before the violation, sustained by it because of the violation.

141. Under § 260.530 RSMo the State has a cause of action for costs incurred by the State as a result of the failure to clean up a hazardous substance involved in a hazardous substance emergency.

142. Since at least December 2010, Defendants have benefitted financially from owning/operating a landfill in violation of § 260.210.1(1) and (4) RSMo as alleged in this Petition.

143. Since at least November 2012, Defendants have permitted or allowed leachate to flow from the Bridgeton Sanitary Landfill into the groundwater or onto the surface of the ground where it was reasonably certain to cause pollution to surface or subsurface waters of the state in violation of § 644.051.1(1) RSMo.

144. Since at least December 2010 the Bridgeton Sanitary Landfill has released or threatened the release of hazardous substances into the air, water, and land of the State.

145. Since at least December 2010 Defendants have failed to fully clean up and remediate the environmental damage cause by the release of hazardous substances emanating from Defendants' landfill.

146. The State has incurred significant expenses, and expects to incur significant additional expenses in the future, responding to Defendants' environmental violations at the Bridgeton Sanitary Landfill, including the release or threatened release of hazardous substances into the environment.

147. The State has incurred other damages and will continue to incur other damages, including costs to return natural resources to the condition they were in prior to Defendants' violations of § 644.051.1(1) RSMo.

148. Under §§ 260.210(5), 260.530 and 644.096 RSMo, the court should order Defendants to reimburse the State for its damages, including natural resource damages, State investigative and oversight costs, and cleanup costs.

WHEREFORE, Plaintiff asks this court to enter its Judgment and Order against Defendants as follows:

A. Assessing natural resource damages, cleanup costs, State investigative and oversight costs, and the costs of these proceedings against Defendants;

B. Declaring that Republic Services, Inc., directed, ordered, or knowingly authorized all activities of Bridgeton Landfill LLC, Allied Services LLC, d/b/a Republic Services of Bridgeton, and that Bridgeton Landfill LLC and Allied Services LLC d/b/a Republic Services of Bridgeton are the alter egos of Republic Services, Inc., that Republic Services, Inc., is liable to the Plaintiff for any award of damages, injunctive relief, and for Plaintiff's costs herein; and

C. Granting such other relief as may be just and proper.

Request for Jury Trial

149. Plaintiff requests a jury trial on all counts.

Respectfully submitted,

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RECORD OF DECISION

WEST LAKE LANDFILL SITE
BRIDGETON, MISSOURI

OPERABLE UNIT 2

July 2008

Prepared by
U.S. Environmental Protection Agency
Region 7
Kansas City, Kansas

30012559
Superfund

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ABBREVIATIONS

The following is a list of the acronyms and abbreviations used in this document:

GENERAL

AOC	Administrative Order on Consent
AR	Administrative Record
ARAR	Applicable or Relevant and Appropriate Requirement
BRA	Baseline Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CSR	Code of State Regulations
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
IC	Institutional Control
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDNR	Missouri Department of Natural Resources
MECA	Missouri Environmental Covenants Act
MSL	Mean Sea Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons

CHEMICALS

PCBs	Polychlorinated Biphenyls
Ra-226	Radium-226
Rn-222	Radon-222
SVOC	Semivolatile Organic Compound
Th-232	Thorium-232
Th-230	Thorium-230
U-238	Uranium-238
U-235	Uranium-235
U-234	Uranium-234
VOC	Volatile Organic Compound

UNITS OF MEASURE

cm	Centimeter
ft\amsl	Feet Above Mean Sea Level
m^2	Square Meter
pCi/g	Picocuries per gram
pCi/l	Picocuries per Liter
ppm	Parts per Million
mg/kg	Milligrams per Kilogram
mg/l	Milligrams per Liter
sec	Second
ug/l	Microgram per Liter
yd^3	Cubic Yards

Record of Decision Data Certification Checklist

The following information is included in this Record of Decision. Additional information is in the Administrative Record file for this Site.

Site Data	Chapter
Contaminants of Concern	5.0 & 7.0
Baseline risk represented by the contaminants	7.0
Remedial Action Objectives	8.0
Principal Threats	11.0
Current and reasonably anticipated future land and groundwater use assumptions	6.0
Potential land and groundwater use that will be available after implementation of the remedy	6.0 & 12.0
Estimated capital, annual Operation and Maintenance, and total present worth costs	12.0
Key factor(s) that led to selecting the remedy	8.0 & 10.0

PART I. DECLARATION

Site Name and Location

West Lake Landfill Site
Operable Unit 2
Bridgeton, Missouri
CERCLIS ID Number: MOD079900932

Statement of Basis and Purpose

This Record of Decision (ROD) presents the Selected Remedy for Operable Unit 2 (OU 2) of the West Lake Landfill Site (Site) in Bridgeton, Missouri. This remedy was selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on information contained in the Administrative Record file for the Site.

The Missouri Department of Natural Resources (MDNR), acting on behalf of the state of Missouri, accepts the Selected Remedy. See Section 10.8 of the Decision Summary for MDNR's statement.

Assessment of the Site

The response action selected in this ROD is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

Description of the Selected Remedy

The Site consists of the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) and several inactive areas with sanitary and demolition fill that were closed prior to state regulation. The Site is divided into two OUs. OU 1 addresses two of the inactive landfill areas that became radiologically contaminated when soils mixed with uranium ore processing residues were used as daily cover in the landfill operations. The Selected Remedy for OU 1 is provided in a separate ROD. OU 2 addresses the other landfill areas that are not impacted by radionuclide contaminants. Missouri is a federally approved regulator for solid waste landfills. For areas operated under state permit, i.e., the Former Active Sanitary Landfill and the Closed Demolition Landfill, the terms of their respective permits dictate the appropriate closure and post-closure care requirements. Successful completion of these requirements would eliminate the need for further CERCLA action at these units. Consistent with EPA's policy on coordination between the Resource Conservation and Recovery Act and CERCLA actions, these regulated units are deferred to the state regulatory program. For the Inactive Sanitary Landfill, which was closed

prior to state regulation, the Selected Remedy is containment with relevant and appropriate closure and post-closure care requirements identified through the CERCLA remedy selection process. OU 2 does not contain principal threat wastes.

The major components of the Selected Remedy for Inactive Sanitary Landfill are as follows:

- Install landfill cover meeting the Missouri closure and post-closure care requirements for sanitary landfills
- Apply groundwater monitoring and protection standards consistent with requirements for sanitary landfills
- Surface water runoff control
- Gas monitoring and control consistent with sanitary landfill requirements as necessary
- Institutional controls to prevent land uses that are inconsistent with a closed sanitary landfill site
- Long-term surveillance and maintenance of the remedy

Statutory Determinations

The Selected Remedy is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate, is cost effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The remedy for OU 2 does not satisfy the statutory preference for treatment as a principal element of the remedy. The contaminants are dispersed within large volumes of heterogeneous municipal refuse and demolition debris; there are no practicable treatment alternatives and no principal threat wastes have been identified.

This remedy will result in hazardous substances, pollutants, or contaminants remaining on the Site above levels that allow for unlimited use and unrestricted exposure; therefore, a statutory review will be conducted within five years after initiation of the remedial action to ensure that the remedy is or will be protective of human health and the environment.

Cecilia Tapia, Director
Superfund Division

7/25/08
Date

PART II. DECISION SUMMARY

1.0 SITE NAME, LOCATION, AND DESCRIPTION

The West Lake Landfill Site (Site) is located in Bridgeton, Missouri. The U.S. Environmental Protection Agency (EPA) is the lead agency and the Missouri Department of Natural Resources (MDNR) is the supporting state agency. The EPA ID Number is MOD079900932.

The Site is on a parcel of approximately 200 acres located in the northwestern portion of the St. Louis metropolitan area (Figure 1-1). It is situated approximately one mile north of the intersection of Interstate 70 and Interstate 270 within the limits of the city of Bridgeton in northwestern St. Louis County. The Missouri River lies about two miles to the north and west of the Site. The Site is bounded on the north by St. Charles Rock Road and on the east by Taussig Road. Old St. Charles Rock Road borders the southern and western portions of the Site. The Earth City Industrial Park is adjacent to the Site on the west. The Spanish Village residential subdivision is located less than a mile to the south.

The Site consists of the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) and several inactive areas with sanitary and demolition fill that have been closed. The address of the Bridgeton Landfill is 13570 St. Charles Rock Road. The Site is divided into two operable units (OUs). OU 1 addresses two of the inactive landfill areas that became radiologically contaminated when soils mixed with uranium ore processing residues were used as daily and intermediate cover in the landfill operations. The Selected Remedy for OU 1 is provided in a separate Record of Decision (ROD). OU 2 addresses the other landfill areas that are not impacted by radionuclide contaminants. This ROD provides the Selected Remedy for OU 2.

Missouri is a federally approved regulator for solid waste landfills. For areas operated under state permit, i.e., the Former Active Sanitary Landfill and the Closed Demolition Landfill, the terms of their respective permits dictate the appropriate closure and post-closure care requirements. Successful completion of these requirements would eliminate the need for further Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) action at these units. Consistent with EPA's policy on coordination between the Resource Conservation and Recovery Act (RCRA) and CERCLA actions, these regulated units are deferred to the state regulatory program. For the Inactive Sanitary Landfill which was closed prior to state regulation, the Selected Remedy is containment with relevant and appropriate closure and post-closure care requirements identified through the CERCLA remedy selection process.

Other facilities which are not subject to this response action are located on the 200-acre parcel, including concrete and asphalt batch plants, a solid waste transfer station, and an automobile repair shop.

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Site was used agriculturally until a limestone quarrying and crushing operation began in 1939. The quarrying operation continued until 1988 and resulted in two quarry pits. Beginning in the early 1950s, portions of the quarried areas and adjacent areas were used for landfilling municipal refuse, industrial solid wastes, and construction/demolition debris. These operations were not subject to state permitting because they occurred prior to the formation of MDNR in 1974. Two landfill areas addressed under OU 1 were radiologically contaminated in 1973 when they received soil mixed with leached barium sulfate residues from uranium ore processing.

The quarry pits were used for permitted solid waste landfill operations beginning in 1979. In August 2005, the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) stopped receiving waste pursuant to an agreement with the city of St. Louis to reduce the potential for birds to interfere with airport operations.

EPA placed the Site on the Superfund National Priorities List (NPL) in 1990. The NPL is a list of priority sites promulgated pursuant to CERCLA section 105, as amended by the Superfund Amendments and Reauthorization Act. The NPL is found in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

In December 1994, EPA entered into an Administrative Order on Consent (AOC) with the potentially responsible party (PRP) for performance of the Remedial Investigation/ Feasibility Study (RI/FS) for OU 2. Pursuant to the requirements of that order, the PRP submitted for EPA review and approval an RI which detailed the findings of extensive sampling and analysis on the area of OU 2 and the surrounding area. Following the RI, the PRP submitted for EPA review and approval an FS which evaluated the various remedial alternatives for OU 2 consistent with the requirements of the AOC and taking into account the requirements of CERCLA and the NCP. In addition, the state of Missouri was provided an opportunity for review and comment on these documents.

3.0 COMMUNITY PARTICIPATION

Public participation activities for the remedy selection process were carried out consistent with NCP section 300.430(f)(3). The Proposed Plan and the Administrative Record (AR) file, which contains the RI/FS and other supporting documents, were made available to the public in June 2006. The AR file was placed at the Bridgeton Trails Branch of the public library, which is a location near the Site. Public notice on the Proposed Plan and public meeting was published in *Bridgeton/Hazelwood Journal* of the *St. Louis Post Dispatch*. Fact sheet notices were sent to area residents, elected officials, and the media outlets.

The comment period was opened on June 14, 2006. The first public meeting was held on June 22, 2006, at the Bridgeton Community Center. At the meeting, EPA provided an overview of the Site, described the preferred alternatives for both OU 1 and OU 2, and explained the remedy selection process. Following the presentation, oral comments from the public were received.

In response to a request from the city of Bridgeton, the comment period was extended to August 14, 2006, and later extended again to October 14, 2006. Following public notice, a second public meeting was held at City Hall on September 14, 2006. All of the community concerns expressed at the first meeting were related to the proposed remedy for OU 1. Therefore, the presentation at the second meeting was more narrowly focused to address concerns with the proposed remedy for OU 1 that were identified at the first meeting. Following the presentation, oral comments from the public were received.

In response to additional requests, EPA further extended the comment period to December 29, 2006. In total, the first public comment period was held open for more than six months.

Responding to ongoing community interest, EPA reopened the public comment period and held a third public meeting on March 27, 2008. This third public comment period was closed on April 9, 2008.

Written transcripts were made of all public meetings, and these are contained in the AR file. Responses to comments received at the meeting and to written comments received during the comment period are provided in the Responsiveness Summary, which is Part III of the OU 1 ROD. No significant comments were received in reference to the Proposed Plan for OU 2, and there is no Responsiveness Summary included with this ROD.

4.0 SCOPE AND ROLE OF THE RESPONSE ACTION

The Site is divided into the following areas (see Figure 4-1):

- Radiological Area 1 (OU 1)
- Radiological Area 2 (OU 1)
- Closed Demolition Landfill (OU 2)
- Former Active Sanitary Landfill (OU 2)
- Inactive Sanitary Landfill (OU 2)

The Site is divided into two OUs. OU 1 addresses Radiological Area 1 and Radiological Area 2. The Selected Remedy for OU 1 is provided in a separate ROD. OU 2 consists of the other landfill areas that are not impacted by radionuclides, i.e., the Closed Demolition Landfill, the Inactive Sanitary Landfill, and the Former Active Sanitary Landfill. This ROD provides the Selected Remedy for OU 2. The Former Active Sanitary Landfill and the Closed Demolition Landfill are deferred to the state regulatory program consistent with EPA's policy on coordination between RCRA and CERCLA. The CERCLA decision process has been applied to the Inactive Sanitary Landfill which did not operate under state permit. OU 1 and OU 2 RODs complete the CERCLA decision-making for the Site.

This ROD identifies the performance standards and environmental requirements for the Selected Remedy. This ROD will be followed by a Remedial Design/Remedial Action (RD/RA) process to develop specific standards for construction, monitoring, and maintenance.

5.0 SITE CHARACTERISTICS

This section presents a summary of the Site's conditions for OU 2 based on the results of the RI evaluations. The potential pathways for exposure to the Site's contaminants are also identified.

5.1 Site Description

The Site is a 200-acre facility located within the city of Bridgeton, St. Louis County, Missouri (Figure 1-1). The address is 13570 St. Charles Rock Road. The property includes a formerly active Bridgeton Sanitary Landfill, several other inactive landfill areas, concrete and asphalt plants, and an automobile repair shop (Figure 4-1). The Site was used agriculturally until 1939 when a limestone quarry and crushing operation was initiated.

The Site is bounded on the north by St. Charles Rock Road and on the east by Taussig Road and agricultural land. Old St. Charles Rock Road borders the southern and western portions of the Site. Property north of the Site (across St. Charles Rock Road) is moderately developed with commercial retail and industrial operations. The property northeast of the Site is also developed for commercial uses. The property south of the Site is currently experiencing significant commercial development. The Earth City Industrial Park is adjacent to the Site on the west. The Site is now almost completely surrounded by commercial/industrial properties.

The Site is located in the eastern edge of the Missouri River flood plain. The Missouri River is located less than two miles west of the Site. The area is transitional between the alluvial flood plain immediately to the west and the loessial bluffs 0.5 mile to the east. The edge of the alluvial valley is oriented north to south through the center of the Site. Topography in the area is gently rolling. However, the Site's topography has been significantly altered by quarry activities in the eastern portion and placement of mine spoils (unused quarry rock) and landfilled materials in the western portion.

The limestone quarry was operated between 1939 and 1988 and was closed when economically recoverable reserves were exhausted. The quarry consisted of two pits which were excavated to a maximum depth of about 240 feet below ground surface (bottom elevation of about 240 feet above mean sea level [MSL]). A sanitary landfill was operated within the limestone quarry pits. Permitted landfilling operations were initiated within the north pit of the quarry in 1979 and later moved into the south pit. Landfilling in the north pit terminated at a maximum elevation of about 500 feet above MSL. Activities at the south pit terminated with solid waste at an elevation of about 580 feet above MSL. The Former Active Sanitary Landfill ceased accepting wastes in 2005, and closure activities were completed in 2006.

The Former Active Sanitary Landfill was constructed with a gas collection system and separate leachate collection system. The gas collection system is designed to alleviate potential odor problems and recover gas for potential beneficial use. The leachate

collection system currently includes seven leachate collection sumps. The leachate collection system collects an average of about 32.5 million gallons of leachate per year from the Former Active Sanitary Landfill area. The collected leachate is pumped into the St. Louis Metropolitan Sewer District.

The Earth City Levee District, which lies to the north and east of the Site, is fully developed with business and industrial parks. The 1,891-acre Levee District is protected on three sides with the main levee running 2.6 miles along the eastern bank of the Missouri River. The levee system is designed to exceed the 500-year flood level and ranges from 462.03 feet above MSL (ft/msl) at the south end to 459.34 ft/msl at the north end. The 500-year flood elevation at these locations is 459.03 ft/msl and 452.15 ft/msl, respectively. Assuming a 500-year flood, the Missouri River would be 3 to 7 feet below the top of the Earth City Levee.

Landfilling has significantly raised the elevation of the Site above the level of the former flood plain. The top elevation of the most northeastern portion of the Site—the Area 2 berm—is approximately 20 feet above the projected flood elevations of about 453 feet within the levee system along the river. Flooding of areas adjacent to the landfill, i.e., areas outside of the levee system, would only occur as a result of a failure or overtopping of the levee system. Spreading of floodwaters into areas outside of the levee system would result in lower flood elevations than those projected to occur within the levee system. Therefore, the actual elevations of any floodwaters that may extend into areas adjacent to the landfill would be less than 453 feet. The result would be no more than a foot or two of water at the northwestern toe of the landfill. Four major flood events have occurred since the levee was completed in 1972 including the record-level flood of August 1993 when the Missouri River crested at 14.6 feet above flood stage and remained above flood level for about 110 days. The flood control system functioned successfully in each case.

According to information provided on the Earth City Levee District Web site, the Levee District has:

> ...developed a comprehensive and ongoing maintenance program whereby the entire levee system, relief wells, pump station and other mechanical and electrical systems are inspected at least annually by qualified independent contractors. The U.S. Army Corps of Engineers inspects the levee and pump station normally on an annual basis. The District's levee and the pump station have qualified for participation in the Corps' rehabilitation assistance program for flood control projects (e.g., Public Law 84-99). As a result of such participation, the Corps will pay 80% of the construction costs incurred in connection with rehabilitation of the levee or pump station resulting from flooding. Costs such as dirt are not covered by the Corps' assistance program.

The three landfill areas that were studied in the RI for OU 2 are briefly discussed below. These areas are identified on Figure 4-1.

5.1.1 Closed Demolition Landfill

The Closed Demolition Landfill is located in the northern portion of the Site between Area 2 and the landfill entrance road. The Closed Demolition Landfill accepted demolition wastes pursuant to the Missouri Operating Permit numbers 218912 and 21903 and is subject to an October 1987 Closure Plan and Missouri state closure and post-closure regulations. Figure 5-1 identifies MDNR's permitted areas. As such, the remedial requirements for the Closed Demolition Landfill portion of the OU 2 Site are established by those permit terms, laws, and regulations. There is no evidence that the Closed Demolition Landfill (which ceased accepting waste in June 1995) received or disposed of waste outside the scope of its permit. It is therefore appropriate for the Closed Demolition Landfill to remain under the state of Missouri regulatory program.

5.1.2 Former Active Sanitary Landfill

Permitted landfilling activities began in 1974 at the Former Active Sanitary Landfill (Bridgeton Sanitary Landfill) and were conducted subject to Missouri state sanitary landfill and waste water permits—most recently, MDNR Operating Permit numbers 118912 (solid waste) and MO-0112771 (waste water). Figure 5-1 identifies MDNR's permitted areas. The Former Active Sanitary Landfill ceased receiving municipal solid waste in February 2005 pursuant to an agreement with the city of St. Louis to reduce the potential harm to airport operations from birds that may be attracted to a sanitary landfill. This agreement was recorded as a negative easement on the entire Site in April 2005. A transfer station now exists within this area of OU 2. The Former Active Sanitary Landfill is undergoing closure and post-closure pursuant to its state of Missouri permits and state of Missouri solid waste regulations. As such, the requirements for the Former Active Sanitary Landfill portion of the OU 2 Site are established by those permit terms, plans, and regulations.

5.1.3 Inactive Sanitary Landfill

The Inactive Sanitary Landfill is located in the western portion of the Site, southwest of the Closed Demolition Landfill. Wastes disposed of in this area are believed to consist of municipal sanitary wastes. The Inactive Sanitary Landfill ceased accepting wastes in 1975 but was not officially *closed* under Missouri state landfill statutes or regulations. Therefore, remedial requirements for the Inactive Sanitary Landfill portion of the OU 2 Site are not established by permit. Data collected during the RI indicated that RA is warranted for the Inactive Sanitary Landfill (see Section 7.1). Accordingly, the FS was designed to evaluate appropriate RA for the Inactive Sanitary Landfill under CERCLA.

5.2 Subsurface Conditions

The geology of the landfill area consists of Paleozoic age sedimentary rocks overlying Pre-Cambrian age igneous and metamorphic rocks. The Paleozoic bedrock is overlain by unconsolidated alluvial and loess deposits of recent (Holocene) age.

The uppermost bedrock units near the landfill consist of Mississippian age limestone and dolomite with interbedded shale and siltstone layers of the Kinderhookian, Osagean, and Meramecian Series. The Kinderhookian Series is an undifferentiated limestone, dolomitic

limestone, shale, and siltstone unit ranging in thickness from 0 to 122 feet in the St. Louis area. The Osagean Series consists of the Fern Glen Formation—a red limestone and shale—and the Burlington-Keokuk Formation—a cherty limestone. The Fern Glen Formation ranges in thickness from 0 to 105 feet, and the Burlington-Keokuk Formation ranges from 0 to 240 feet thick in the St. Louis area.

The Meramecian Series overlies the Osagean Series rocks. The Meramecian Series consists of several formations including the Warsaw Formation, the Salem Formation, the St. Louis Formation, and the St. Genevieve Formation. The St. Genevieve Formation is reportedly not present near the landfill.

Pennsylvanian age Missourian, Desmoisian, and Atokan Formations are present in some areas above the Mississippian age rocks. The Pennsylvanian age rocks consist primarily of shale, siltstone, and sandstone with silt and clay. These formations range in combined thickness from 0 to 375 feet in this area. The Atokan-Series Cheltenham Formation was identified as being present in the former landfill soil borrow area located to the southeast of the landfill.

Alluvial deposits of varying thickness are present beneath most of the Site. The underlying alluvium extends north and west from the former quarry pits, generally increasing in thickness from east to west toward the river. The thickness ranges from less than 5 feet to a fairly uniform thickness of approximately 100 feet beneath Area 2 (OU 1).

The regional direction of groundwater flow is in a generally northerly direction within the Missouri River alluvial valley, parallel or subparallel to the river alignment. The RI data indicate very flat gradients in the water table of the alluvial aquifer near the Site. However, in the immediate vicinity of the leachate collection system for the Former Active Sanitary Landfill, groundwater flow is inward toward the leachate sumps. The leachate collection system is of hydrogeologic importance because it is designed to remove the leachate and groundwater which flow into the Former Active Sanitary Landfill. The leachate collection system, therefore, acts as a groundwater sink to the shallow groundwater surrounding the Former Active Sanitary Landfill. Figure 5-2 shows the conceptual hydraulic model for the Former Active Sanitary Landfill. The area of influence extends laterally to the alluvium but does not extend vertically to the deeper bedrock units.

5.3 Nature and Extent of Contamination

The OU 2 RI was conducted to characterize affected media associated with OU 2 areas and to identify the pathways for contaminant migration associated with the Inactive Sanitary Landfill. The RI included studies of the physical and biological characteristics, hydrogeologic characteristics, sources of contamination, surface and sediment quality, and air quality. Source characterization activities were conducted for the Inactive Sanitary Landfill including landfill gas and leachate characterization. The findings are briefly summarized below.

Landfill gas characterization of the Inactive Sanitary Landfill was accomplished using various measurement techniques. Air monitoring of the breathing zone conducted during 49 borings did not show appreciable impacts from landfill gas. Active gas venting was not observed. Direct measurements of landfill gas were made along the crest of the landfill. Measurements along the western perimeter were also taken. Sporadic impacts from combustible gas emissions and volatile organic compounds (VOCs) were observed.

Leachate sampling and analysis were conducted at the Inactive Sanitary Landfill to look for impacts from potential sources of hazardous substances. Existing leachate risers at the Former Active Sanitary Landfill were also sampled. Leachate samples were analyzed for the full suite of hazardous substances. In general, the leachate from the Inactive Sanitary Landfill had fewer detected parameters and at lower concentrations than leachate from the Former Active Sanitary Landfill. This is probably due to the greater age of the Inactive Sanitary Landfill which ceased accepting waste materials in 1975. Table 5-2 compares the organic compounds above the laboratory reporting limit for the leachate from the Former Active Sanitary Landfill against the leachate from the Inactive Sanitary Landfill.

Surface and subsurface soil samplings were conducted to characterize the distribution and extent of organic constituents within and near the landfill mass at the Inactive Sanitary Landfill. Samples were analyzed for total organic carbon (TOC) or total petroleum hydrocarbon (TPH) and VOCs where elevated organic concentrations were suspected. TOC values near the ground surface west of the Inactive Sanitary Landfill range from about 2,300 milligrams per kilogram (mg/kg) (0.23 percent) to 10,000 mg/kg (1 percent). Soil samples from the southwest corner of the Inactive Sanitary Landfill near MW-F2 were analyzed for TPH and VOCs to confirm and characterize suspected petroleum-related impacts. Table 5-3 lists the results. Detectable VOCs were limited to toluene, ethylbenzene, and total xylenes which are common petroleum constituents. These impacts may be due to the leaking underground storage tank (LUST) site located at the asphalt plant to the west. Vapor intrusion to off-site locations is not a concern under current conditions because the area is bordered by the Earth City Industrial Park storm water retention system and undeveloped land to the west and southwest.

Groundwater was the medium most extensively sampled as part of the OU 2 RI. Constituents detected in the alluvial groundwater at levels exceeding Safe Drinking Water Act Maximum Contaminant Levels (MCLs) include arsenic, benzene, vinyl chloride, iron, manganese, chloride, total dissolved solids, and fluoride. Some of the metals and conventional water quality parameters appear to reflect background groundwater conditions. See Table 5-1 for a summary of parameters detected as part of the OU 2 RI that exceeded MCLs in groundwater.

The OU 2 RI identified an area of shallow groundwater impact near the extreme southwest corner of the Inactive Sanitary Landfill. The groundwater in this area is impacted by petroleum hydrocarbons and volatile organic hydrocarbons. As detailed in the RI, the potential source of the impacts may be the LUST site that lies between the Inactive Sanitary Landfill and the Former Active Sanitary Landfill. Surface water and sediment results indicate that the localized area of impacted groundwater is not measurably affecting downgradient surface waters and sediments.

Figures 5-3 through 5-7B are maps illustrating all groundwater and surface water data collected as part of both the OU 1 and OU 2 RI/FS projects combined. Groundwater and surface water results for chlorobenzene, benzene, dissolved and total lead, dissolved and total arsenic, and dissolved and total radium are illustrated on these figures. These are the only constituents detected at the Site in excess of MCLs. The results generally show sporadic and isolated detections of a small number of contaminants at relatively low concentration levels. These results are not indicative of on-site contaminant plumes, radial migration, or other forms of contiguous groundwater contamination that might be attributable to the landfill units being investigated. Based on the frequency of detection and concentration level relative to its MCL, arsenic is one of the more noteworthy contaminants found in the groundwater that is potentially related to the landfill units. However, even in the case of arsenic, no evidence of radial migration was found, i.e., the detections were not supported by nearby locations.

The locations of the two known sources of groundwater contamination unrelated to the Site are identified on the figures. PM Resources, located to the east of Area 1 across St. Charles Rock Road, produces a wide variety of animal health care products and chemicals. The LUST site is located at the center of the Site property. As shown by the arrows on these figures, some groundwater flows from these sources toward the landfill units. Some of the contaminants detected as part of the OU 1 and OU 2 investigations may be attributable to these sources. Summaries regarding the nature of these facilities and the potential groundwater releases associated with these can be found in the OU 2 RI/FS documents.

The figures also include the approximate extent of the inward hydraulic gradient that has been established by the pumping of about 300 million gallons per year of groundwater/leachate at the Former Active Sanitary Landfill. The sanitary landfill has been pumping about 300 million gallons per year of leachate/groundwater for approximately 15 years and is required by state permit to maintain a significant inward hydraulic gradient throughout post-closure, which will extend for at least another 28 years.

In summary, as part of the OU 2 RI and related site characterization efforts, a variety of environmental media were sampled for landfill contaminants. The data did not indicate disposal of large quantities of hazardous waste at any of the landfill areas. However, low levels of hazardous substances were identified in leachate, landfill gas, and groundwater. The findings are generally consistent with municipal waste disposal which often includes small quantities of hazardous wastes. While groundwater at the Site has been impacted, significant off-site contaminant migration is not currently indicated; however, this remains an ongoing and potential pathway that needs to be addressed. Based on these findings and general experience with landfill sites, the potential pathways by which contaminants could migrate from the landfill are listed below and the remedy for OU 2 will need to address these pathways:

- Airborne transport of gas and fugitive dust
- Rainwater runoff transport of dissolved or suspended contaminants

- Erosion and transport of contaminated soils or waste materials
- Leaching of contaminants to the underlying alluvial groundwater

6.0 CURRENT AND FUTURE LAND AND RESOURCE USES

This section describes the current and reasonably anticipated land uses and current and potential groundwater uses at the Site.

6.1 Land Use

The Site is a 200-acre facility on which are located several solid waste disposal areas including the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill). There is also a solid waste transfer station, concrete and asphalt plants, and an automobile repair shop located on the facility.

Land use in the area surrounding the landfill is generally commercial and industrial. The property to the north of the landfill across St. Charles Rock Road is moderately developed with commercial, retail, and manufacturing operations. The Earth City Industrial Park is located adjacent to the landfill on the west and southwest across Old St. Charles Rock Road. Spanish Village—a residential development—is located to the south of the landfill near the intersection of St. Charles Rock Road and Interstate 270 approximately .75 mile from the Site. Adjacent to the Spanish Village development is a large industrial park. Mixed commercial, retail, manufacturing, and single family residential uses are present to the southeast of the landfill.

The Site itself is expected to remain a landfill site and any on-site commercial uses will need to be compatible with this end use. There are existing land use controls in the form of restrictive covenants executed by the property owner. Development within the Earth City Levee District, which includes all the property to the north, west, and southwest of the Site, is commercial and industrial by design; the entire 1,891 acres are 97 percent developed. Surrounding land use to the south and east is also expected to remain largely commercial/industrial. Zoning in that area is consistent with this observation. Because the surrounding area is already mostly developed, no significant changes in land use are anticipated.

6.2 Groundwater Use

The Site is located at the edge of the alluvial valley. Groundwater is present in both the unconsolidated materials (alluvium) and in the bedrock underlying and adjacent to the Site.

The major alluvial aquifers in the area are differentiated to include the Quaternary age alluvium and the basal parts of the alluvium underlying the Missouri River flood plain. The major bedrock aquifers favorable for groundwater development lie at great depths. The St. Peter Sandstone aquifer lies at a depth of approximately 1,450 feet below ground surface. While of regional importance, the major bedrock aquifers are not significant to the study of the Site due to their great depths and intervening shale units. The bedrock

units immediately underlying and adjacent to the Site (including the Warsaw, Salem, and St. Louis Formations) are not very favorable for groundwater development, i.e., yield less than 50 gallons per minute to wells.

Investigation during the RI confirmed there is no current groundwater use in the vicinity of the Site. The nearest registered well is a deep bedrock well located about one mile northeast of the Site. The closest registered alluvial well is two and one-half miles south of the Site. A public water supply intake is located approximately eight miles downstream of the Site. Given the setting and the ready access to municipal drinking water supplies, use of the shallow groundwater at or near the Site is not considered to be a viable pathway for the foreseeable future. Nevertheless, based on potential yields, groundwater in the vicinity of the Site is considered potentially usable. In particular, alluvial groundwater wells completed in the Missouri River flood plain are capable of very high yields.

7.0 SUMMARY OF SITE RISKS

A streamlined or qualitative risk evaluation was conducted as part of the RI/FS process for OU 2. As a matter of policy, a quantitative risk assessment is not necessary to establish a basis for action at CERCLA municipal landfill sites if groundwater data are available to demonstrate that contaminants exceed standards or if other conditions exist that provide a clear justification for action, which is the case for OU 2. Figure 7-1 depicts the Site Conceptual Model for OU 2.

7.1 Human Health Risks

The OU 2 Baseline Risk Assessment (BRA) was prepared in accordance with the presumptive remedy approach for municipal landfills. EPA recognizes that certain categories of sites, i.e., municipal landfill sites, have similar characteristics such as types of contaminants, types of disposal practices, or how environmental media are affected. Based on information acquired from evaluating and cleaning up these sites, EPA has initiated the use of presumptive remedies to accelerate cleanups at these types of sites.

The streamlined approach to evaluating risks at CERCLA municipal landfill sites differs from the typical BRA in that quantitative calculations of intakes and risks are not conducted. Instead, pathways that present an obvious threat to human health and the environment are identified by comparing site-specific contaminant concentrations to established standards or risk-based chemical concentrations (EPA, 1991b).

Consistent with the streamlined approach, the OU 2 BRA compared groundwater contaminant concentrations with chemical-specific standards. In this case, MCLs as provided in the drinking water regulations pursuant to the Safe Drinking Water Act (40 CFR 141) and the Missouri regulations (10 CSR 60-4.010, et seq) were used.

Carcinogenic contaminants exceeding MCLs which were identified in the alluvial groundwater sampling for the Site are arsenic, benzene, and vinyl chloride.

Noncarcinogenic contaminants that exceeded MCLs in the Site's groundwater are iron, manganese, chloride, total dissolved solids, and fluoride. TPHs also exceeded the MDNR Tier 1 Cleanup Levels apparently as a result of releases from a LUST discussed in more detail in the RI Report.

In this case, the ongoing potential for contaminants to leach to groundwater is sufficient to justify CERCLA response action. Moreover, consistent with this streamlined approach, the final remedy must address all pathways and contaminants of concern not just those that trigger the RA.

7.2 Ecological Risks

A qualitative ecological evaluation was conducted for OU 2. Although local populations of some common species may be present in the area, OU 2 is not a highly sensitive or ecologically unique environment. The streamlined risk assessment for OU 2 as discussed in the human health evaluation identified groundwater as the primary media of concern. Groundwater is not readily accessible to ecological receptors, and the Site's characterization suggests that groundwater will not adversely impact ecologically sensitive areas.

8.0 REMEDIAL ACTION OBJECTIVES

The general objective for the Selected Remedy is to protect public health and the environment by preventing actual or potential human exposure to the Site's contaminants and by preventing or mitigating contaminant migration. Potential pathways for contaminant migration are identified in Section 5.3.

Generally, the principal response action for CERCLA municipal landfill sites is engineered containment in place consistent with EPA's presumptive remedy approach described below. This approach takes advantage of EPA's experience with landfill sites to streamline the site evaluation and remedy selection processes. This approach was used in the case of OU 2. The presumptive approach is described in Section 8.1.

8.1 Presumptive Remedy Approach for CERCLA Municipal Landfills

NCP provides the implementing regulations for CERCLA. Section 300.430(a)(iii)(B) of the NCP contains the expectation that engineering controls such as capping or other form of containment will be used for waste that poses a relatively low, long-term threat or where treatment is impracticable. The preamble to the NCP identifies municipal landfills as a type of site where treatment of the waste may be impracticable because of the size and heterogeneity of the contents (55 FR 8704). Waste in CERCLA landfills usually is present in large volumes and is a heterogeneous mixture of municipal waste frequently codisposed with industrial and/or hazardous waste. Because treatment is usually impracticable, EPA generally considers containment to be the appropriate response action or the *presumptive remedy* for the source areas of municipal landfill sites.

Presumptive remedies are preferred technologies for common categories of sites based on historical patterns of remedy selection and EPA's scientific and engineering evaluation of

performance data on technology implementation. EPA has issued guidance that establishes containment as the presumptive remedy for CERCLA municipal landfills including EPA 540-F-93-035, *Presumptive Remedy for CERCLA Municipal Landfill Sites*; EPA/540/P-92-001, *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites*; EPA/540F-95/009, *Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide*; EPA/540/F-96/020, *Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills,* including those that contain radioactive wastes; EPA 540/R-94/081, *Feasibility Study Analysis for CERCLA Municipal Landfill Sites;* and EPA 540-F-99-015, R*euse of CERCLA Landfill and Containment Sites*. These documents are included in the AR file and some can be found in Appendix A to the OU 1 FS.

The landfill units at the Site OU 2 were used for solid waste disposal consistent with the situation envisioned in the presumptive remedy guidance. The presumptive remedy is suitable for OU 2, and the streamlined approach to site evaluation was taken where appropriate. The presumptive remedy is engineered containment composed of technology options that are appropriate to the circumstance.

The Remedial Action Objectives (RAOs) for the municipal landfill presumptive remedy are the following:

- Prevent direct contact with landfill contents
- Minimize infiltration and resulting contaminant leaching to groundwater
- Control surface water runoff and erosion
- Collect and treat contaminated groundwater and leachate to contain any contaminant plume and prevent further migration from the source area
- Control and treat landfill gas

These RAOs identified by EPA in the presumptive remedy guidance (EPA, 1993) address the potential migration pathways identified in the RI. The first objective of preventing direct contact with landfill contents addresses direct exposure to contaminated soil or waste materials. The second and third objectives identified in the presumptive remedy guidance are also appropriate for OU 2. The fourth objective is not applicable because a plume of contaminated groundwater beneath or downgradient of the disposal areas has not been identified. In addition, meeting the second objective ensures that the potential for ongoing infiltration or leaching is minimized. The fifth objective of controlling and treating landfill gas applies. The following summarizes these objectives:

8.2 Remedial Actions Objectives for Operable Unit 2:

- Prevent direct contact with landfill contents
- Minimize infiltration and any resulting contaminant leaching to groundwater

- Control surface water runoff and erosion
- Control and treat landfill gas emissions

Hot spots are defined in EPA's Presumptive Remedy for CERCLA Municipal Landfills (EPA 540-F-93-035) as discrete, accessible, and more toxic or mobile waste forms within the landfill that might compromise the integrity of the containment remedy. Typical hot spots include drums or trenches containing liquids or concentrated industrial waste. If hot spots are identified, the process provides that they be evaluated for removal and/or treatment. To be considered for excavation and treatment, hot spots should be large enough or toxic enough that remediation would significantly reduce the risk posed by the site, but small enough and accessible enough that it is reasonable to consider removal. The RI for OU 2 found no evidence of any hot spots at any of the landfill units.

9.0 DESCRIPTION OF REMEDIAL ALTERNATIVES

The following components address the RAOs identified above:

- Landfill cap
- Landfill gas collection and treatment as necessary
- Institutional controls (ICs) to limit land and resource use
- Long-term groundwater monitoring and maintenance

Construction of a proper landfill cap will prevent direct contact with landfill contents. The cap will be designed to minimize infiltration, control surface water runoff and erosion, and control landfill gas emissions. Based on the results of gas monitoring, collection and/or treatment will be undertaken as necessary. Long-term groundwater monitoring plans and operation and maintenance (O&M) plans will be developed and implemented. The specific requirements that these components must meet are established based on an analysis of applicable or relevant and appropriate requirements (ARARs).

Under this approach, the Site will remain a landfill and hazardous substances will remain on-site at levels that do not allow for unlimited use and unrestricted exposure. Therefore, a periodic review of the remedy will need to be conducted at least every five years (Five-Year Review).

9.1 Closed Demolition Landfill and the Former Active Sanitary Landfill

Missouri is a federally approved regulator for solid waste landfills and has promulgated laws and requirements for the design and operation of sanitary landfills (10 CSR 80-3.010) and demolition landfills (10 CSR 80-4.010). The Missouri Solid Waste Management Rules also provide requirements for closure and post-closure care (10 CSR 80-2.030). The Closed Demolition Landfill operated under Missouri permit and was

closed in 1995. The Former Active Sanitary Landfill (Bridgeton Landfill) operated under Missouri permit and disposal operations ceased in 2005. The Missouri Solid Waste Rules are applicable to these landfills, and closure and post-closure care will be carried out in accordance with state and local permits. Application of these rules is consistent with the RAOs identified in Section 8.0 above. Consistent with EPA's policy on coordination between RCRA and CERCLA actions, these regulated units are deferred to the state regulatory program. The terms of these permits will dictate the closure and post-closure requirements, and no FS evaluation of remedial alternatives or identification of relevant and appropriate requirements was necessary for these areas.

9.2 Inactive Sanitary Landfill

This landfill was part of the unregulated landfill operations conducted prior to 1974. It contains sanitary wastes and a variety of other solid wastes and demolition debris. This landfill is similar to a sanitary landfill, and many of the substantive Missouri requirements for closure and post-closure care are relevant and appropriate. This landfill is also well suited for streamlined evaluation as envisioned under EPA's presumptive approach to municipal solid waste landfills. There is no unusual site condition that might justify evaluation of nonpresumptive remedial options. For the Inactive Sanitary Landfill, the RAOs identified in Section 8.0 will be met through application of the CERCLA process. The FS provides the development and evaluation of remedial alternatives and identifies ARARs for this landfill unit.

9.2.1 Alternative 1 – No Action

Alternative 1 (No Action) is included as required by the NCP to serve as a baseline for comparison of the other alternatives. Under this alternative, no engineering measures will be implemented at the Inactive Sanitary Landfill to reduce potential exposures or control potential migration. Similarly, no additional ICs and no additional fencing will be implemented to control land use, access, or potential future exposures. No monitoring will be conducted to identify or evaluate any potential changes that may occur. The only costs that would be associated with the No Action Alternative are those associated with performing Five-Year Reviews. The 30-year present worth cost is estimated at $47,000.

9.2.2 Alternative 2 – Landfill Cover with Long-Term Monitoring and Institutional Controls

Estimated capital cost: $6,670,000
Estimated annual O&M cost: $45,000
Estimated 30-year present worth cost: $7,215,000

Under Alternative 2, a landfill cap would be installed at the Inactive Sanitary Landfill consistent with relevant and appropriate Missouri requirements for sanitary landfill cap construction, including two feet of engineered materials meeting the permeability requirement and vegetated cover (Figure 9-1). Missouri requirements for landfill gas monitoring/management, groundwater monitoring, and inspection and maintenance would also be met. ICs must be implemented to limit future uses and to ensure future uses do not impact the effectiveness or integrity of the remedy.

10.0 SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In accordance with the NCP, remedial alternatives must be evaluated against the nine evaluation criteria provided in the NCP. The nine evaluation criteria fall into three categories: threshold criteria, primary balancing criteria, and modifying criteria. The first two criteria described below are the threshold criteria. To be eligible for selection, an alternative must meet the threshold criteria, i.e., be protective of human health and the environment and comply with ARARs. The next five criteria are the primary balancing criteria. These criteria are used to assess the relative advantages and disadvantages of each alternative. The last two are the modifying criteria. These allow for consideration of state and community issues and concerns.

The Site OU 2 is comprised of the Closed Demolition Landfill, the Former Active Sanitary Landfill, and the Inactive Sanitary Landfill. As explained in the prior section, an FS evaluation was not performed for the Closed Demolition Landfill and the Former Active Sanitary Landfill because these units are appropriately regulated through existing state and local permits.

The OU 2 FS provides a detailed description of Alternative 2 for the Inactive Sanitary Landfill – Landfill Cover with Long-Term Monitoring and ICs. However, a true comparative analysis of alternatives for the Inactive Sanitary Landfill is not presented because consistent with EPA guidance the remedy is presumed to be containment consisting of a landfill cover with long-term monitoring and ICs as described in Alternative 2. FS analysis supporting the presumptive approach is provided in EPA 540/R-94/081 – *Feasibility Study Analysis for CERCLA Municipal Landfill Sites*. Although not a comparative analysis, the following subsections describe how the evaluation criteria are met by the containment remedy.

10.1 Overall Protection of Human Health and the Environment

This criterion addresses whether the alternative provides adequate protection of human health and the environment and how well the risks posed through each exposure pathway are eliminated, reduced, or controlled through treatment, engineering controls, and/or ICs.

Through inclusion of an upgraded landfill cap sufficient to meet the state of Missouri solid waste landfill closure requirements, Alternative 2 would be protective of human health and the environment. The upgraded landfill cover would prevent contact with landfill contents, minimize infiltration and resulting contaminant leaching to groundwater, and would control the generation of landfill gas. In addition, through engineering design to ensure proper slopes are maintained, the upgraded cover would control surface water runoff and erosion.

10.2 Compliance with Applicable or Relevant and Appropriate Requirements

Section 121(d) of CERCLA and NCP § 300.430(f)(1)(ii)(B) require that RAs at CERCLA sites attain legally applicable or relevant and appropriate federal and state requirements, standards, criteria, and limitations which are collectively referred to as ARARs unless such ARARs are waived under CERCLA section 121(d)(4).

ARARs for the closure and post-closure care of the Inactive Sanitary Landfill are identified by the Missouri solid waste landfill rules. Alternative 2 will meet these requirements. See Section 13.2 for a full description.

10.3 Long-Term Effectiveness and Permanence

This refers to expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time.

Alternative 2 provides engineered containment in conjunction with long-term monitoring, maintenance, and land use control designed to be effective over the long term. Long-term site management plans and ICs will be made as robust and durable as possible. Even without ICs, the landfill cover will passively prevent human exposures for an indefinite period.

10.4 Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment

Reduction of toxicity, mobility, or volume through treatment refers to the anticipated performance of the treatment technologies that may be included as part of a remedy.

Alternative 2 will not result in a reduction of toxicity, mobility, or volume through treatment. The hazardous substances in the Inactive Sanitary Landfill are dispersed within the overall, heterogeneous matrix of municipal refuse and construction and demolition debris. Consequently, treatment techniques are considered impracticable.

10.5 Short-Term Effectiveness

Short-term effectiveness addresses the period of time needed to implement the remedy and any adverse impacts that may be posed to workers, the community, and the environment during implementation of the remedy.

Alternative 2 involves routine landfill closure activities. The short-term impacts to workers and the community would be comparable to those resulting from the recent closure of the Former Active Sanitary Landfill. The local roads would experience increased truck traffic as a result of hauling low permeability soil and topsoil and heavy equipment; however, the current capacity of these roads is sufficient to accommodate the traffic with minimal disturbance to the community.

10.6 Implementability

Implementability addresses the technical and administrative feasibility of a remedy from design through construction and operation. Factors such as availability of services and materials, administrative feasibility, and coordination with other governmental entities are also considered.

Placement of low permeability soil and topsoil is a routine closure activity associated with solid waste landfills. There are no unknown or nonroutine technical difficulties associated with Alternative 2. Administratively, construction of a state of Missouri solid waste landfill prescribed cover would involve coordination with other offices and agencies that are routinely utilized when placing final cover on solid waste landfills. The necessary construction equipment and materials are readily available.

10.7 Cost

This addresses the capital and O&M costs of the alternative. These study estimated costs are intended to allow gross comparisons but are not expected to have a high degree of accuracy.

Estimated capital, annual O&M, and 30-year present worth costs for Alternative 2 are as follows:

- Estimated capital cost: $6,670,000
- Estimated annual O&M cost: $45,000
- Estimated 30-year present worth cost: $7,215,000

10.8 State Acceptance

MDNR assists EPA in its oversight role and provides review and comment on the Site's documents. MDNR provided the following statements describing state acceptance:

> The Missouri Department of Natural Resources has reviewed the Record of Decision for Operable Unit 1 and Operable Unit 2 (OU-1 and OU-2) of the West Lake Landfill. Generally speaking, everyone would want all sites remediated to levels that provide unencumbered use. The department's goal of remediation to unencumbered use aligns with the National Contingency Plan's objective. For West Lake Landfill, however, the department accepts remediation that provides containment and isolation of contaminants from human receptors and the environment as the most reasonable option given the circumstances, as defined in the selected remedies for OU-1 and OU-2. The department recognizes the hazards associated with excavation into a former solid waste landfill, and has determined that the risks associated with this option to on-site workers and nearby citizens, outweigh the risks of containment in place.

The department also recognizes the need for long-term care and monitoring for containment in place and insists that a robust and durable stewardship plan be implemented to address this aspect. In order to achieve this, the state has applicable standards, which are relevant and appropriate for:

- closure and long-term care of all portions of the site,
- monitoring and control of gas generated in the waste deposits,
- monitoring of groundwater, and
- continued removal of leachate from the Former Active Sanitary Landfill.

The department must remain a partner in the development of the remedial design, stewardship plan, and implementation of these aspects for this site to ensure that the selected remedy remains protective of human health and the environment into the future. To reiterate, the department would support actions that move the site closer to unencumbered use (recognizing the site is a landfill), should future events occur that would change the current administrative process.

10.9 Community Acceptance

The public comment periods for OU 1 and OU 2 were held simultaneously. Based on comments received during the public comment period, the community has a substantial interest in the remedy for OU 1 but not OU 2. No significant public comments were received on the proposed remedy for OU 2.

11.0 PRINCIPAL THREAT WASTES

Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. For example, drums or trenches with hazardous or liquid wastes would generally be considered principal threat wastes. The NCP establishes the expectation that treatment will be used to address the principal threats posed by the site wherever practicable [section 300.430(a)(1)(iii)(A)]. The hazardous substances at the Site OU 2 are dispersed in a heterogeneous mix of municipal solid waste. No principal threat wastes have been identified.

12.0 SELECTED REMEDY

The Selected Remedy for the Inactive Sanitary Landfill is to install a cover system consistent with Alternative 2. Long-term monitoring, maintenance, ICs, and periodic reviews will also be required.

As explained in Section 9.0, the Closed Demolition Landfill and the Former Active Sanitary Landfill are appropriately deferred to state and local regulation.

12.1 Rationale for the Selected Remedy

The information indicates that the waste materials in the Inactive Sanitary Landfill can be safely managed in place using conventional landfill methods consistent with Alternative 2. There are no exposure pathways outside the source area (landfill) and no long-term groundwater response action is necessary. The circumstances fit well with those envisioned by EPA's presumptive remedy guidance for CERCLA municipal landfill sites.

12.2 Description of the Selected Remedy

The major components of the Selected Remedy for the Inactive Sanitary Landfill are as follows:

- Installation of landfill cover meeting the Missouri closure and post-closure care requirements for sanitary landfills
- Use and application of groundwater monitoring and protection standards consistent with requirements for sanitary landfills
- Surface water runoff control
- Gas monitoring and control consistent with sanitary landfill requirements as necessary
- ICs to prevent land uses that are inconsistent with a closed solid waste landfill site
- Long-term surveillance and maintenance of the remedy

Prior to construction of the landfill cover, the area will be brought up to grade using placement of inert fill and regrading of existing material as determined in the RD. Final grades will achieve a minimum slope of two percent.

The landfill cover, gas control, runoff control, long-term groundwater monitoring, and post-closure inspection and maintenance will at a minimum meet the relevant and appropriate requirements found in the Missouri solid waste rules for sanitary landfills.

Surface drainage diversions, controls, and structures will be designed and constructed to expeditiously route storm water runoff to the water drainage systems which are subject to state National Pollution Discharge Elimination System permits.

Landfill gas characterization of the Inactive Sanitary Landfill indicated the sporadic presence of decomposition gases and organic vapors. Typically, gas generation in municipal solid waste increases for the first five or six years after placement in the landfill and then declines thereafter. Because the landfill has been inactive for 30 years, decomposition gas generation is relatively low and expected to decline. However, even at low generation rates, placement of the landfill cover creates the potential for gases to be trapped and accumulate under the cover. To prevent pressure build up under the landfill cover and/or lateral migration, gas control systems may be required. Gas control measures may involve passive venting or active collection. The need for and nature of gas control measures will be evaluated and defined as part of the RD.

The landfill cover system will be routinely inspected and maintained to ensure the integrity of the remedy over time. In addition to surveillance of the physical remedy, the periodic site inspections will include administrative functions such as monitoring of ICs and coordination with key stakeholders including the Earth City Levee District regarding management of the flood control system. See Section 5.1 for a description of the levee maintenance program.

The O&M plan will be developed and submitted for approval as part of the RD/RA process. The O&M plan will cover all the long-term remedy management functions including groundwater monitoring plans, site inspection, maintenance and repair, IC monitoring and enforcement, five-year reviews, notification and coordination, community relations, health and safety, emergency planning, activity schedules, reporting, etc. In practice, the O&M plan may be developed as a compilation of more focused plans.

12.2.1 Groundwater Monitoring Objectives

One of the primary objectives of the Selected Remedy is to protect groundwater from any ongoing or future impacts from the Inactive Sanitary Landfill. The landfill cover over the Inactive Sanitary Landfill will be designed and constructed to shed water and minimize the potential for precipitation to infiltrate the waste materials. Therefore, the cover is expected to further reduce the potential for migration of contaminants from the Inactive Sanitary Landfill to the shallow groundwater underlying the Site. A long-term groundwater monitoring program will be established to demonstrate that the Selected Remedy performs as required over the post-closure period. The plan will have a groundwater monitoring component and a detection monitoring component. Statistical evaluation of groundwater data will be used to assess groundwater quality and identify long-term trends. Statistically significant deterioration in groundwater quality with time as a result of contaminant migration from the Inactive Sanitary Landfill shall be cause to reevaluate the remedy.

Monitoring plans requiring specific monitoring locations, sampling frequencies, parameters, sampling and analysis procedures, and evaluation approach will be developed and submitted as part of the O&M plan in the RD/RA process. The program may be optimized with time, depending on results. Monitoring plans and groundwater protection standards will be consistent with the requirements found in the Missouri Solid Waste Rules for Sanitary Landfills [10 CSR 80-3.010 (11)].

12.2.2 Institutional Controls

The Site will need to be used in ways consistent with it being a landfill site. Land use restrictions must be implemented for the Inactive Sanitary Landfill to limit future uses and to ensure future uses do not impact the effectiveness or integrity of the remedy. The restrictions must be maintained until the remaining hazardous substances are at levels allowing for unlimited use and unrestricted exposure. These restrictions do not apply to activities related to the implementation, maintenance, or repair of the remedy.

The following use restrictions apply within the boundary of the cover system(s) for the Inactive Sanitary Landfill:

- Prevent development and use for residential housing, schools, childcare facilities or playgrounds.
- Prevent development and use for industrial or commercial purposes such as manufacturing, offices, or other facilities that are incompatible with the function or maintenance of the landfill cover.
- Prevent construction activities involving drilling, boring, digging, or other use of heavy equipment that could disturb vegetation, disrupt grading or drainage patterns, cause erosion, or otherwise compromise the integrity of the landfill cover or manage these activities such that any damage to the cover is avoided or repaired.
- Prevent the use of all groundwater underlying the area.
- Provide for access necessary for continued maintenance, monitoring, inspections, and repair.

For nondisposal areas of the Site, any new or existing structures for human occupancy shall be assessed for landfill gas accumulation; mitigative engineering measures such as foundation venting should be employed as necessary.

Property use restrictions at the Site will be implemented through the placement of ICs. The specific IC design and implementation strategy will be a component of the RD planning process following release of this ROD. Where appropriate, multiple mechanisms or a *layered* approach will be used to enhance the effectiveness of the IC strategy. Access controls such as fences and gates may also be used to support the use restrictions.

At the Site, the affected properties are privately owned and the use restrictions must be maintained for an indefinite period of time. Therefore, proprietary controls will be used because they generally run with the land and are enforceable. The Missouri Environmental Covenants Act (MECA), which is based on the Uniform Environmental Covenants Act, was recently enacted. MECA specifically authorizes environmental covenants and authorizes the state to acquire property interests. Specifically designed to support use restrictions at contaminated sites, an environmental covenant pursuant to MECA is the preferred instrument to be used at the Site.

The Site has been listed by MDNR on the state's Registry of Confirmed, Abandoned, or Uncontrolled Hazardous Waste Disposal Sites in Missouri (Uncontrolled Sites Registry). The Registry is maintained by MDNR pursuant to the Missouri Hazardous Waste Management Law, Mo.Rev.Stat. Section 260.440. Sites listed on the Registry appear on a publicly available list. A notice is filed with the County Recorder of Deeds and notice must be provided by the seller to any potential buyers of the property.

The O&M plan will contain procedures for surveillance, monitoring, and maintenance of the ICs. The O&M plan will provide for notice to EPA and/or the state of any IC violations, planned or actual land use changes, and any planned or actual transfers, sales, or leases of property subject to the use restrictions.

12.2.3 Estimated Remedy Costs

Estimated capital, annual O&M, and 30-year present worth costs for the Selected Remedy are as follows:

- Estimated capital cost: $6,670,000
- Estimated annual O&M cost: $45,000
- Estimated 30-year present worth cost: $7,215,000

A breakdown of the capital cost estimate is provided in Table 12-1. The total present worth cost uses a discount rate of 7 percent for the duration of the 30-year evaluation period. The 30-year evaluation period is used to allow for cost comparisons only and has nothing to do with the expected duration of the remedy.

The cost estimates are based on the best available information regarding the anticipated scope of the remedy and unit rates. Changes in the cost elements will occur as new information is collected during the design and construction phase.

12.3 Expected Outcomes of the Selected Remedy

As a result of the Selected Remedy, the Site will remain dedicated to solid waste disposal. This use is consistent with current and reasonably anticipated future use for the Site. As such, the Site may be used in ways that are consistent with it being a closed landfill site, i.e., uses that do not interfere with the function or maintenance of the landfill cover system. See Section 12.2.2 for a description of the use restrictions.

13.0 STATUTORY DETERMINATIONS

Under CERCLA section 121(b) and NCP, the lead agency must select remedies that are protective of human health and the environment, comply with ARARs, are cost effective, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable. In addition, CERCLA includes a preference for treatment that reduces volume, toxicity, or mobility as a principal element. The following sections discuss how the Selected Remedy meets these statutory requirements.

13.1 Protection of Human Health and the Environment

The Selected Remedy will protect human health and the environment through the use of engineered containment, long-term surveillance and maintenance, and ICs on land and resource use. The landfill cover will eliminate potential risks of exposure from inhalation or ingestion of contaminated soils or other wastes, dermal contact with contaminated soils or other wastes, gas emissions, and wind dispersal of fugitive dust.

The cover will also limit infiltration of surface water that might cause leaching of contaminants to the groundwater. Long-term maintenance and monitoring will ensure that the Selected Remedy functions as intended. ICs will ensure that land and resource uses are consistent with permanent waste disposal.

13.2 Compliance with Applicable or Relevant and Appropriate Requirements

The Selected Remedy will comply with all ARARs as identified below.

Missouri Solid Waste Rules for Sanitary Landfills

Under RCRA Subtitle D, a state may promulgate more stringent regulations for landfills in that state provided that EPA approves of the state's regulations. Missouri is an approved state for providing regulations for landfills. Missouri promulgated its regulations in 1997 (22 Mo Reg 1008, June 2, 1997) and they became effective July 1, 1997. The Missouri Solid Waste Management Rules establish requirements for design and operation of sanitary landfills (10 CSR 80-3.010) and demolition landfills (10 CSR 80-4.010). The rules also provide closure and post-closure requirements (10 CSR 80-2.030) for existing landfills closed after October 9, 1991. The Closed Demolition Landfill operated under Missouri permit and was closed in 1995. The Former Active Sanitary Landfill (Bridgeton Landfill) operated under Missouri permit, and disposal operations ceased in 2005. The Missouri Solid Waste Management Rules are applicable to these landfills and closure and post-closure care will be carried out in accordance with state and local permits. These rules are not applicable to the Inactive Sanitary Landfill which closed prior to the effective date. However, the requirements are considered relevant and appropriate as described below.

MDNR regulations require cover to be applied to minimize fire hazards, infiltration of precipitation, odors, and blowing litter; control gas venting and vectors; discourage scavenging; and provide a pleasing appearance [10 CSR 80-3.010(17)(A)]. This final cover shall consist of at least two feet of compacted clay with a coefficient of permeability of 1×10^{-5} cm/sec or less overlaid by at least one foot of soil capable of sustaining vegetative growth [10 CSR 80-3.010(17)(C)(4)]. Placement of soil cover addresses the requirements for minimization of fire hazards, odors, blowing litter, control of gas venting, and scavenging. Placement of clay meeting the permeability requirement addresses the requirement for minimization of infiltration of precipitation. Placement of soil and establishment of a vegetative cover meet the requirement of providing for a pleasing appearance.

MDNR landfill regulations also contain minimum and maximum slope requirements. Specifically, these regulations require the final slope of the top of the sanitary landfill shall have a minimum slope of five percent [10 CSR 80-3.010(17)(B)(7)]. MDNR regulations also require that the maximum slopes be less than 25 percent unless it has been demonstrated in a detailed slope stability analysis that the slopes can be constructed and maintained throughout the entire operational life and post-closure period of the landfill. Even with such a demonstration, no active, intermediate, or final slope shall exceed $33^1/_3$ percent. The objective of these requirements is to promote maximum runoff without excessive erosion and to account for potential differential settlement. Because

landfilling of the Inactive Sanitary Landfill was completed approximately 30 years ago, most compaction of the refuse has taken place and differential settlement is no longer a significant concern. The five percent minimum sloping requirement is greater than necessary and may not be optimal in this case. Therefore, the five percent minimum sloping requirement is not considered appropriate. Sloping specifications would be designed to promote drainage and reduce infiltration of precipitation while minimizing the potential for erosion. It is anticipated that a two percent slope would be sufficient to meet drainage requirements while resulting in a lower potential for erosion or slope failure. This approach should increase the life of the cover and overall longevity of the remedy compared to a steeper slope which would be subject to increase erosion potential. The maximum sloping requirements would be met.

The requirements for decomposition gas monitoring and control in 10 CSR 80-3.010(14) are considered relevant and appropriate and will be met. The number and locations of gas monitoring points and the frequency of measurement will be established in RD submittals to be approved by EPA and the state. In the event landfill gas is detected at the landfill boundaries above the regulatory thresholds, appropriate gas controls will be implemented.

The requirements for groundwater monitoring and protection in 10 CSR 80-3.010(11) are considered relevant and appropriate. The monitoring program must be capable of monitoring any ongoing or potential impact of the landfill on underlying groundwater. The monitoring program will enable the regulatory agencies to evaluate the need for any additional requirements.

The substantive MDNR landfill requirements for post-closure care and corrective action found in 10 CSR 80-2.030 are also considered relevant and appropriate. These provisions provide a useful framework for O&M and corrective action plans. These substantive provisions require post-closure plans describing the necessary maintenance, monitoring activities, and schedules.

Clean Water Act

The Clean Water Act sets standards for ambient water quality and incorporates chemical-specific standards including federal water quality criteria and state water quality standards. The substantive requirements for storm water runoff are relevant and appropriate.

Safe Drinking Water Act

40 CFR Part 141 establishes primary drinking water regulations pursuant to section 1412 of the Public Health Service Act, as amended by the Safe Drinking Water Act (Pub. L. 93-523), and related regulations applicable to public water systems. These MCLs apply to public drinking water systems. Missouri regulations (10 CSR 60-4.010, et seq) also establish MCLs for public drinking water systems. Consistent with the NCP, MCLs are considered relevant and appropriate to all potentially usable groundwater.

The following are construction-related regulatory requirements:

Missouri Well Construction Code

MDNR has promulgated regulations pertaining to the location and construction of water wells. The Well Construction Code (10 C.S.R. 23-3.010) prohibits the placement of a well within 300 feet of a landfill. These rules should provide protection against the placement of wells on or near the Site.

The regulations on monitoring well construction (10 C.S.R. 23-4) will apply to the construction of new or replacement monitoring wells.

Missouri Storm Water Regulations

The Missouri regulations governing storm water management at construction sites are set out in 10 C.S.R. 20-6.200. A disturbance of greater than one acre and the creation of a storm water point source during construction of the remedy would trigger these requirements. Temporary measures such as diversion dikes and sediment traps would be used to control runoff.

13.3 Cost Effectiveness

A cost-effective remedy is one whose "costs are proportional to its overall effectiveness" [NCP § 300.430(f)(1)(ii)(D)]. The Selected Remedy is considered cost effective because it provides a high degree of effectiveness and permanence at reasonable cost.

13.4 Utilization of Permanent Solutions and Alternative Treatment (or Resource Recovery) Technologies to the Maximum Extent Practicable

The Selected Remedy represents the maximum extent to which permanent solutions and treatment are practicable. Treatment to reduce toxicity, mobility, or volume is not practicable because most contaminants in the Inactive Sanitary Landfill are dispersed throughout the overall, heterogeneous matrix of municipal refuse and construction and demolition debris. Consequently, excavation of the hazardous substances for possible ex-situ treatment techniques is considered impracticable. Similarly, the heterogeneous nature of the solid waste materials and the dispersed nature of the contaminants within the overall solid waste matrix make in situ treatment techniques impracticable.

The waste materials can be effectively managed in place over the long term using conventional landfill methods.

13.5 Preference for Treatment as a Principal Element

The Selected Remedy does not satisfy the preference for treatment as a principal element. For the reasons described in the previous section, no effective or practicable treatment options are available.

13.6 Five-Year Review Requirements

CERCLA § 121(c) and NCP § 300.430(f)(5)(iii)(C) require a periodic review, commonly called a Five-Year Review, if the RA results in hazardous substances, pollutants, or contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure. Therefore, a statutory Five-Year Review is required under the Selected Remedy for OU 2. The review evaluates whether the remedy remains protective of human health and the environment.

13.7 Significant Changes from the Proposed Plan

The Selected Remedy for OU 2 is not significantly changed from the preferred alternative in the Proposed Plan. No significant comments were received on the Proposed Plan for OU 2 during the public comment period.

TABLES

Table 5-1
Summary of Constituents Detected in Groundwater that Exceed MCLs or MCLGs

Parameter	Range of Detection (mg/l)	MCL (mg/l)
Alluvium		
Metals		
Arsenic (Dissolved)	<0.002 to 0.094	0.05 [a]
Arsenic (Total)	<0.002 to 0.087	0.05 [a]
Iron (Dissolved)	<0.04 to 92.0	0.3 [b]
Iron (Total)	<0.063 to 90.1	0.3 [b]
Manganese (Dissolved)	<0.017 to 6.54	0.05 [b]
Manganese (Total)	<0.077 to 6.39	0.05 [b]
Conventionals		
Chloride	17 to 299	250 [b]
Total Dissolved Solids	86 to 1396	500 [b]
Volatiles/Organics		
Benzene	<0.002 to 0.078	0.005 [a]
Vinyl Chloride	<0.001 to 0.026	0.002 [a]
Total Petroleum Hydrocarbons	13.12 to 21.3	10 [c]
St. Louis/Upper Salem		
Metals		
Iron (Dissolved)	<0.04 to 4.24	0.3 [b]
Iron (Total)	<0.04 to 5.87	0.3 [b]
Manganese (Dissolved)	<0.01 to 0.375	0.05 [b]
Manganese (Total)	0.017 to 0.528	0.05 [b]
Conventionals		
Fluoride	0.49 to 2.7	2 [b]
Total Dissolved Solids	364 to 1418	500 [b]
Deep Salem		
Metals		
Iron (Dissolved)	<0.04 to 0.945	0.3 [b]
Iron (Total)	0.119 to 2.09	0.3 [b]
Manganese (Dissolved)	0.016 to 0.238	0.05 [b]
Manganese (Total)	0.017 to 0.332	0.05 [b]
Conventionals		
Total Dissolved Solids	340 to 665	500 [b]

[a] Primary MCL 40 CFR 141.11 and 141.62
[b] Secondary MCL 40 CFR 143.3
[c] Missouri Department of Natural Resources, Tier 1 Clean-up Level

Table 5.2 Organic Compounds Detected in Leachate

Compound	Active Sanitary Landfill Leachate				Inactive Landfill Leachate			
	LCS-1	LCS-2	LCS-3	LCS-4	LR-100	LR-103	LR-104	LR-105
Acetone	***1.2***	***0.65***	***0.038***	***0.61***	<0.010	<0.010	<0.010	***0.04***
Benzene	<0.5	***0.009***	<0.005	<0.005	<0.005	<0.005	<0.005	***0.007***
Chlorobenzene	<0.5	***0.035***	***0.029***	***0.011***	***0.044***	<0.005	<0.005	***0.74***
1,4-Dichlorobenzene	<0.5	***0.081***	***0.009***	***0.056***	***0.01***	<0.005	<0.005	***0.068***
Ethylbenzene	<0.5	***0.049***	***0.023***	***0.07***	***0.012***	<0.005	<0.005	***0.089***
2-Hexanone	<1	***0.1***	<0.010	***0.18***	<0.010	<0.010	<0.010	<0.010
Methyl Ethyl Ketone	***3***	***1.3***	***0.11***	***2.6***	<0.010	<0.010	<0.010	<0.010
Methyl iso-butyl Ketone	<1	***0.08***	<0.010	***0.076***	<0.010	<0.010	<0.010	<0.010
Styrene	<0.5	***0.005***	<0.005	***0.006***	<0.005	<0.005	<0.005	<0.005
Toluene	<0.5	***0.097***	***0.15***	***0.12***	<0.005	<0.005	<0.005	***0.007***
Total Xylenes	<0.5	***0.14***	***0.035***	***0.17***	***0.057***	<0.005	<0.005	***0.43***
M+P Cresol	***1.9***	***0.95***	***0.077***	***0.26***	<0.010	<0.010	<0.010	R
2,4-Dimethylphenol	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	***0.082***
Bis(2-ethylhexyl)phthalate	***0.019***	***0.022***	***0.017***	<0.010	***0.12***	<0.010	<0.010	***0.036***
Diethyl phthalate	***0.033***	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Dimethyl phthalate	***0.012***	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Phenol	***0.29***	***0.16***	<0.010	***0.017***	<0.010	<0.010	<0.010	R
Naphthalene	<0.010	<0.010	<0.010	<0.010	***0.011***	<0.010	<0.010	<0.010
Volatile Petroleum Hydrocarbons	***0.41***	***0.4***	***0.12***	***0.48***	***0.17***	<0.05	<0.05	***0.95***
Petroleum Hydrocarbons (Diesel)	***79***	***6.9***	***2.2***	***0.22***	***2.2***	***0.63***	***0.08***	***4.4***

Notes:
All results in mg/L
R: Data point rejected during data evaluation
Results above reporting limit are shown in ***boldface/italic*** type
Inactive landfill leachate riser LR-101 was not installed due to the absence of leachate at this location
Inactive landfill leachate riser LR-102 was not sampled due to minimal (<6 inches) liquid thickness

Table 5.3 Alluvial Soil Total Petroleum Hydrocarbon and VOC Results from locations near MW-F2

Sampling Location	TPH Purgeable Range (mg/kg)	TPH Extractable Range (mg/kg)	VOCs (mg/kg)
PZ-303-AS (17 ft)	2,000	12,000	Toluene (5.3) Ethylbenzene (10) Total Xylenes (54)
PZ-303-AS (25-25.5 ft)	160	160,	Total Xylenes (0.82)
SB-01 (16-18 ft)	6,700	15,000	Toluene (310) Ethylbenzene (24) Total Xylenes (120)
SB-02 (4-6 ft)	<0.1	32	ND
SB-02 (14-16 ft)	<0.1	24	ND
SB-03 (6-8 ft)	<0.1	23	ND
SB-03 (10-12 ft)	<0.1	<10	ND
SB-04 (8-10 ft)	<0.1	<10	ND

Notes:
ND: Not Detected

Table 12-1

Capital Cost Estimate
Alternative 2 - Missouri-prescribed Cover with Long-Term Monitoring and Institutional Controls
(Cover Installation)

Description	Quantity	Units	Unit Rate	Estimated Cost
Estimated Capital Costs:				
Work Plan	1	each	$50,000	$50,000
Surveying (site layout)	15	day	$1,023	$15,345
Secure access / easements	1	lump sum	$10,000	$10,000
Inactive Landfill Perimeter Silt Fence	6,600	feet	$2.05	$13,530
Geotechnical testing of borrow materials	1	each	$20,459	$20,459
Perimeter drainage				
Drainage channels	6,600	linear feet	$4.51	$29,766
Place cover over Inactive Landfill area				
Clearing / grubbing / preparation	47.5	acre	$5,933	$281,818
Deliver, place, and compact 10^{-5} permeability soil over Region 3-1	14,520	cubic yard	$18.55	$269,346
Deliver, place, and compact 10^{-5} permeability soil over Region 3-2	5,091	cubic yard	$18.55	$94,438
Deliver, place, and compact 10^{-5} permeability soil over Region 3-3	6,370	cubic yard	$18.55	$118,164
Deliver, place, and compact 10^{-5} permeability soil over Region 3-4	464	cubic yard	$18.55	$8,978
Deliver and place 1 foot vegetative growth layer over Inactive Landfill area (approx 47.5 acres)	101,922	cubic yard	$25.03	$2,551,108
Fertilize / seeding / mulching	47.5	acre	$1,534	$72,865
Survey control	130	day	$1,023	$132,990
Materials testing equipment during construction	8	month	$2,046	$16,368
Monitoring during construction				
Continuous monitoring / recording of air flow	1	lump sum	$20,459	$20,459
Meterological	8	month	$2,046	$16,368
Health and safety monitoring	8	month	$7,388	$59,104
Miscellaneous site work	1	lump sum	$50,000	$50,000
Surveying ("record drawings")	11	day	$1,023	$11,253
Construction completion report	1	lump sum	$50,000	$50,000
Health and safety surcharge for CERCLA site contractor	10	%	$1,025,627	$102,563
Estimated Construction Costs - Subtotal				**$3,994,921**
Contractor Markup, Mob/demob, Insurance	10	%		$399,492
Engineering, Permitting, and Construction Management	20	%		$798,984
Regulatory Oversight	2.5	%		$99,873
Estimated Project Capital Costs - Subtotal				**$5,293,270**
Contingency	25	%		$1,323,317.46
Estimated Project Capital Costs - Total				**$6,616,587**

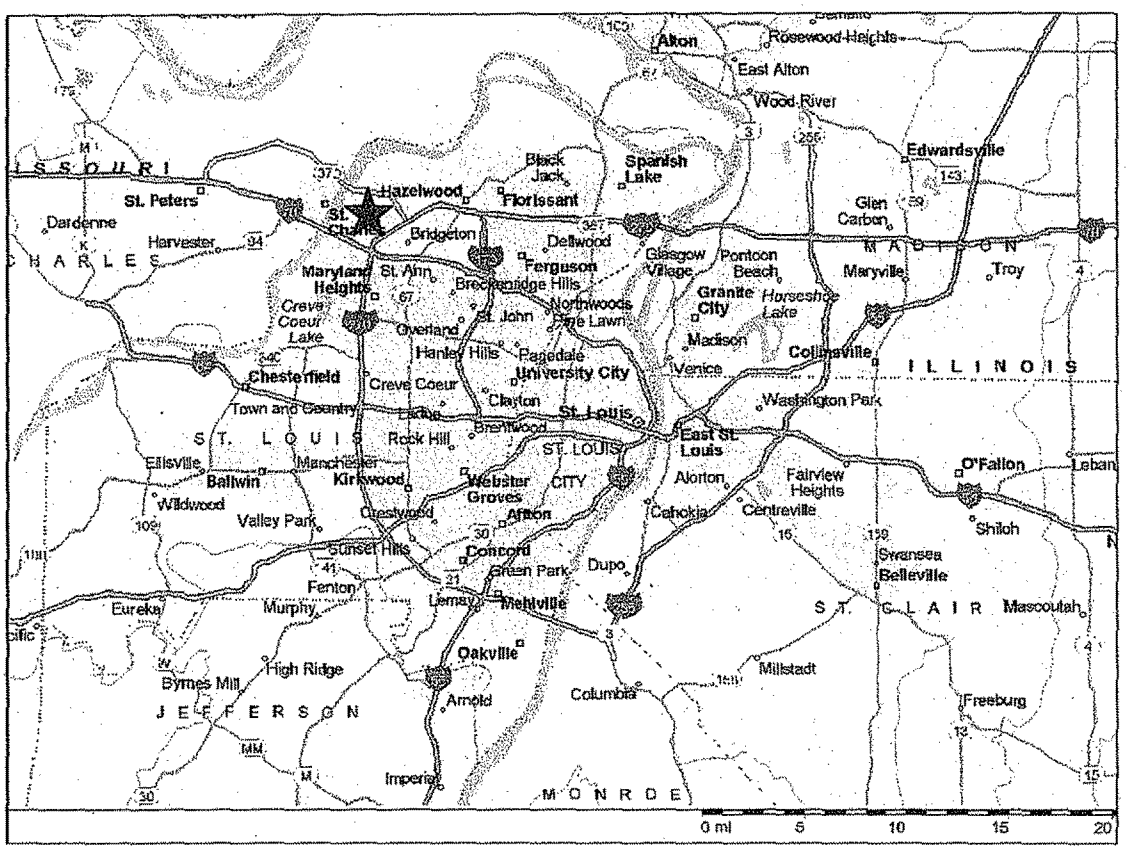
Table 12-1 (Cont.)

Capital Cost Estimate
Alternative 2 - Missouri-prescribed Cover with Long-Term Monitoring and Institutional Controls
(Monitoring System Construction & Additional Institutional Controls)

Description	Quantity	Units	Unit Rate	Estimated Cost
Estimated Capital Costs:				
Planning Documents	1	lump sum	$10,000	$10,000
Secure easements	1	lump sum	$1,000	$1,000
Install 13 new perimeter landfill gas monitoring wells	13	each	$1,200	$15,600
Labor to establish Institutional Controls	1	lump sum	$16,000	$16,000
Estimated Capital Costs - Subtotal				**$42,600**
Contingency	25	%		$10,650
Estimated Project Capital Costs - Total				**$53,250**

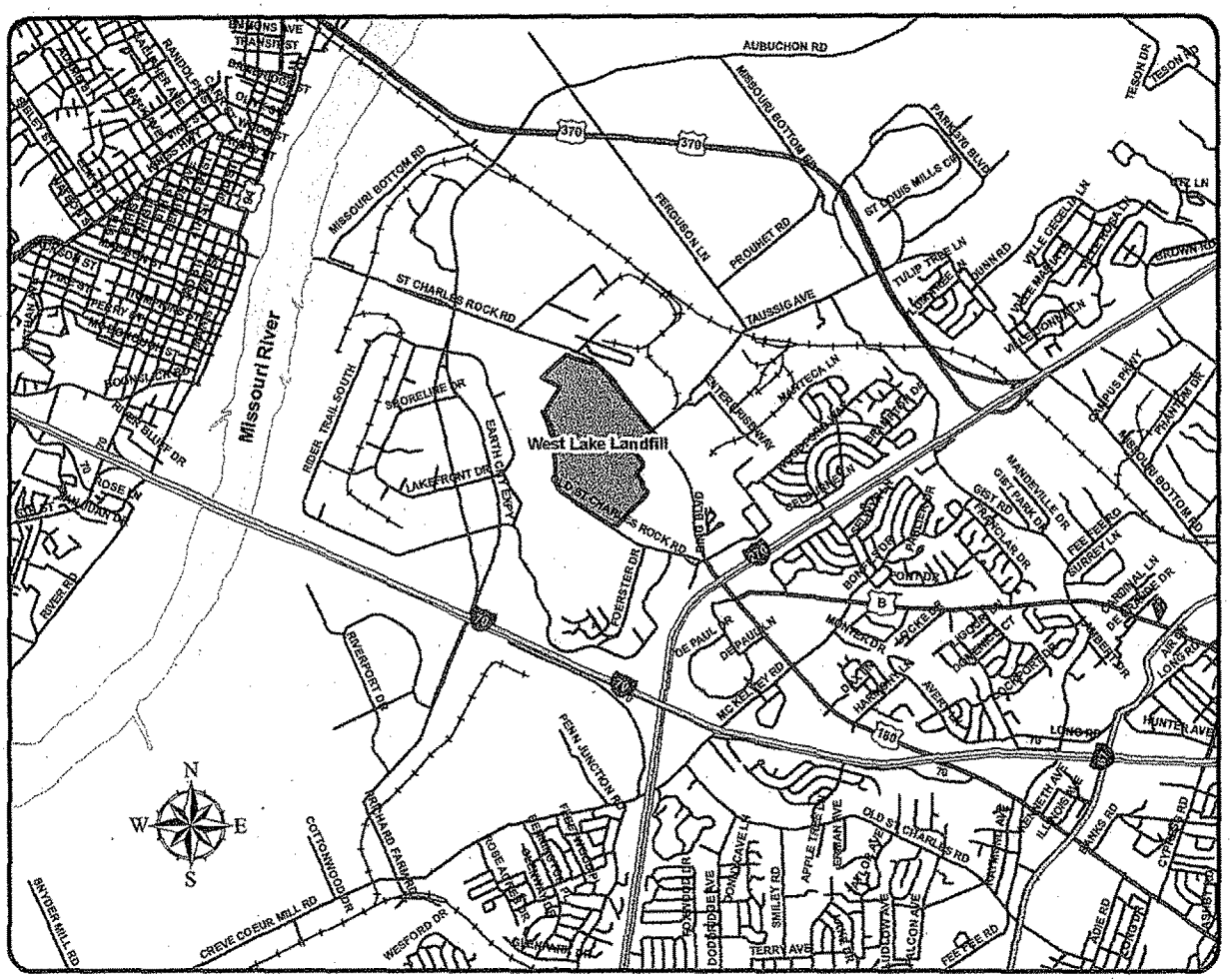
FIGURES

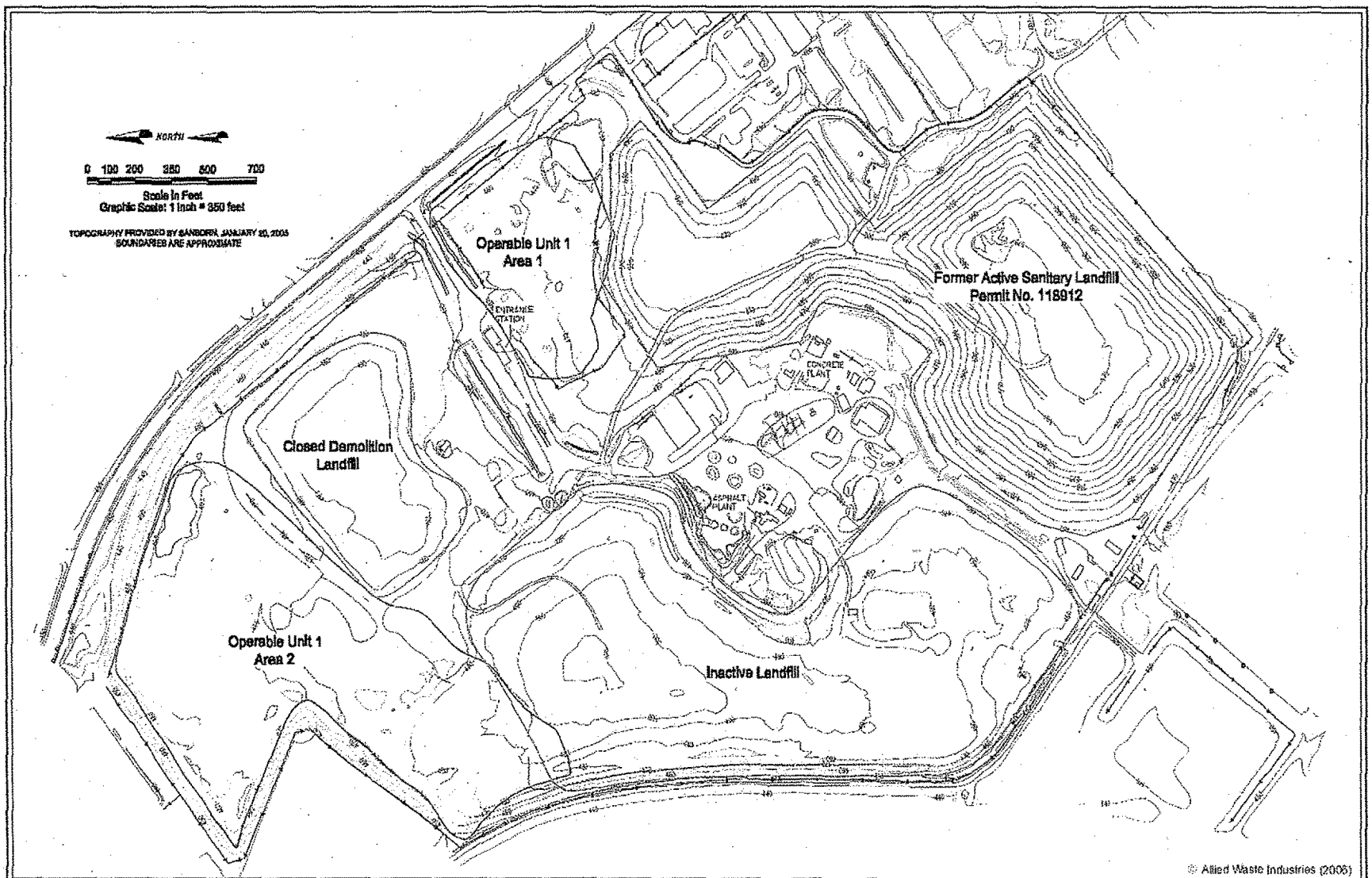
FIGURE 1-1 SITE LOCATION



★ Site Location

FIGURE 1-2 VICINITY MAP



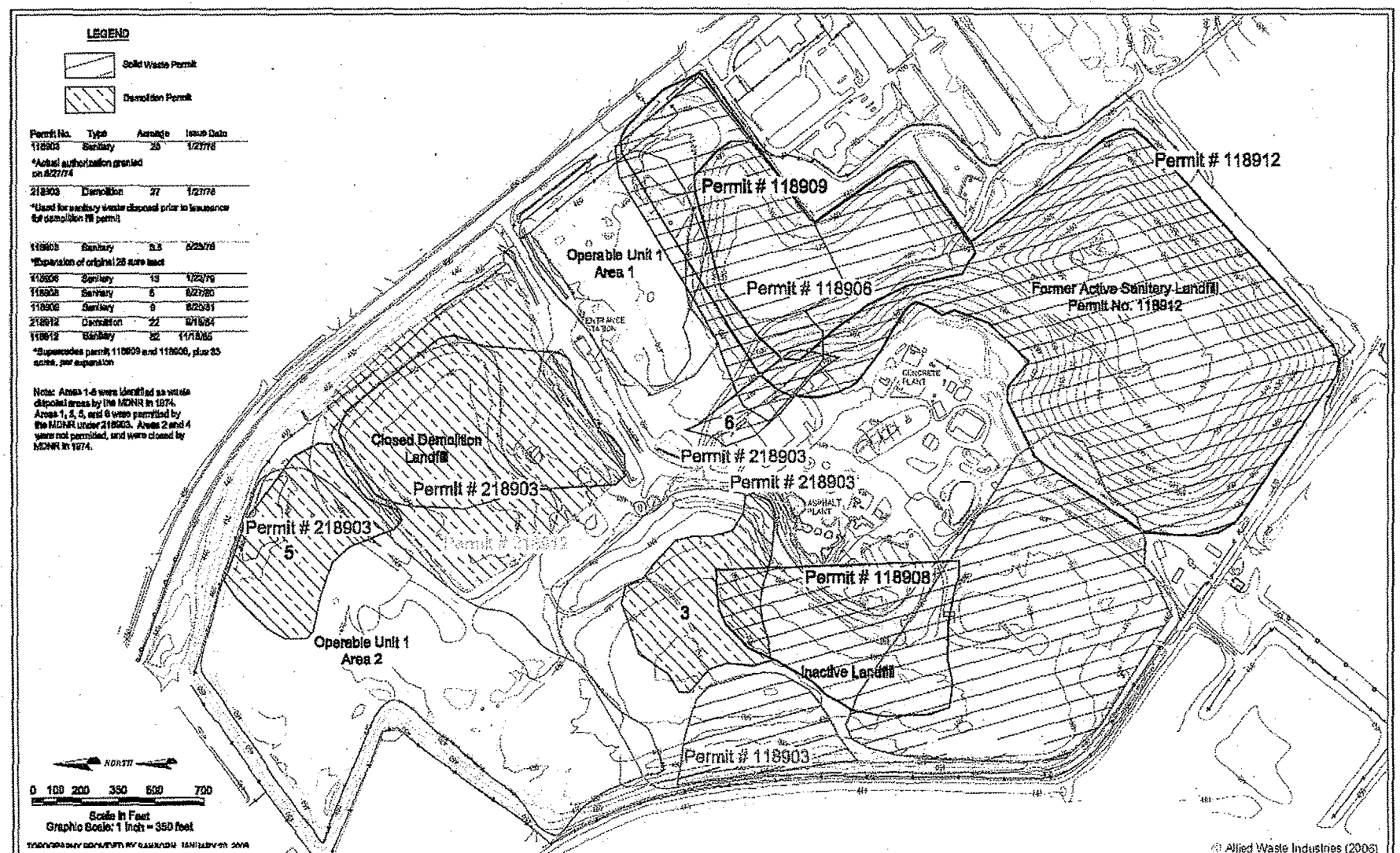


HERST & ASSOCIATES, INC.

West Lake Landfill OU-2
Bridgeton, Missouri

Figure 4-1
Site-Wide Landfill
Area Boundaries

37

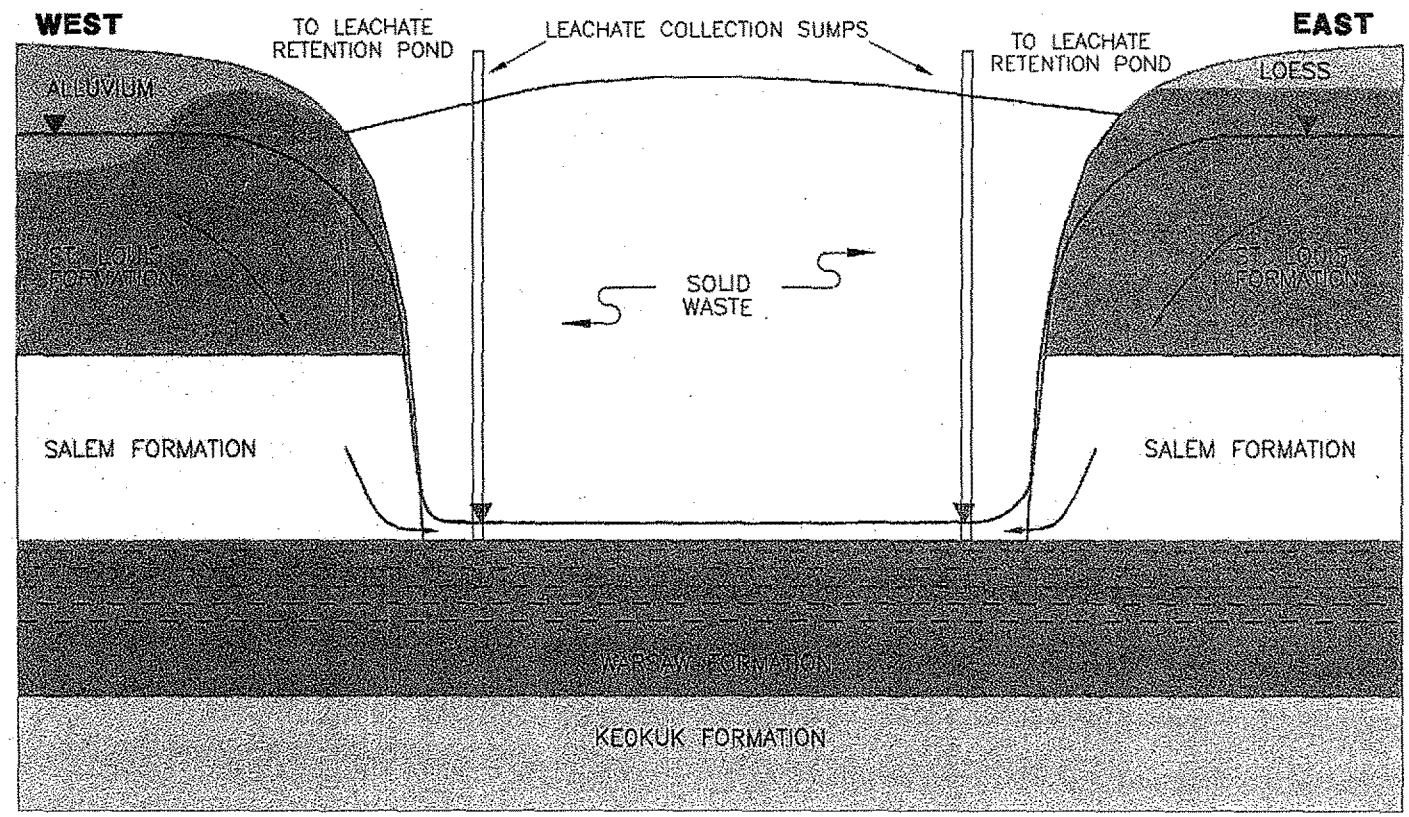


HERST & ASSOCIATES, INC.

West Lake Landfill OU-2
Bridgeton, Missouri

Figure 5-1
Missouri Department of Natural Resources Permitted Areas

38



LEGEND

- GROUNDWATER LEVEL
- LEACHATE LEVEL
- GENERALIZED DIRECTION OF GROUNDWATER FLOW

© Allied Waste Industries (2006)

4630 South Highway 94
North Outer Road
St. Charles, Missouri 63304
Phone (636) 939-9111
Fax (636) 939-9757
HERST & ASSOCIATES, INC.

West Lake Landfill OU-2
Bridgeton, Missouri

Figure 5-2
Conceptual Hydrogeologic Model
Former Active Sanitary Landfill

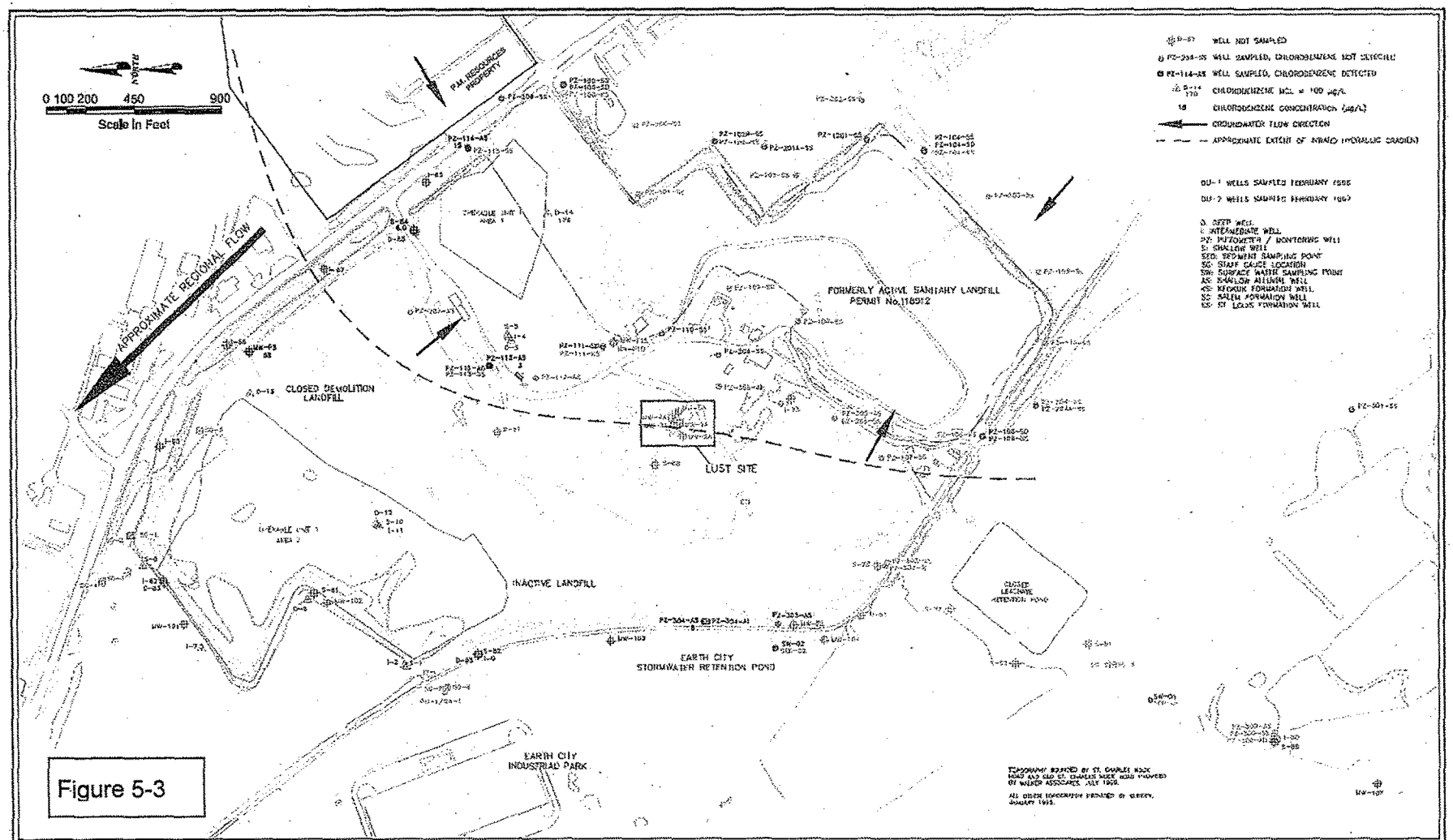


Figure 5-3

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Chlorobenzene Results

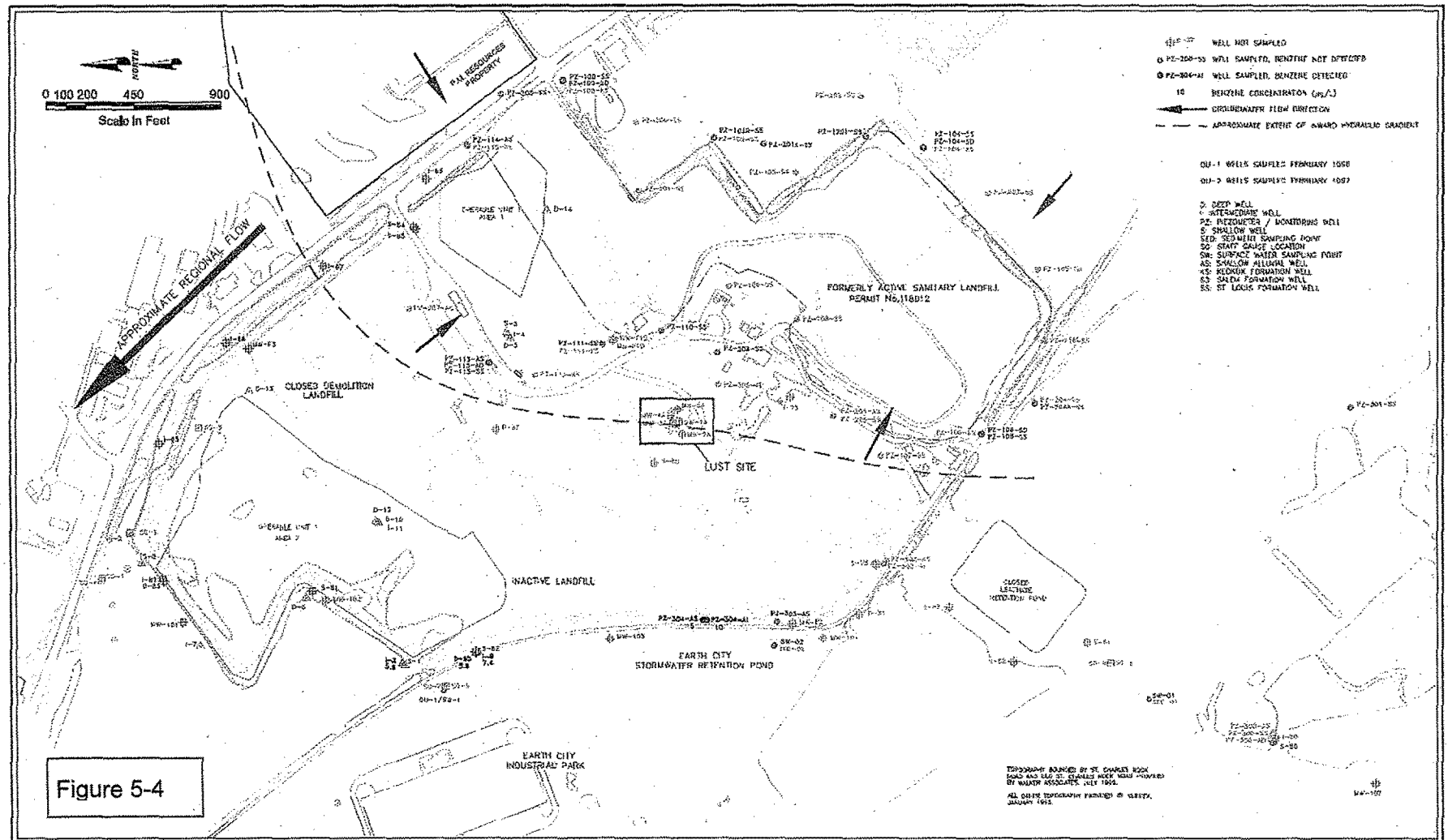


Figure 5-4

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Benzene Results

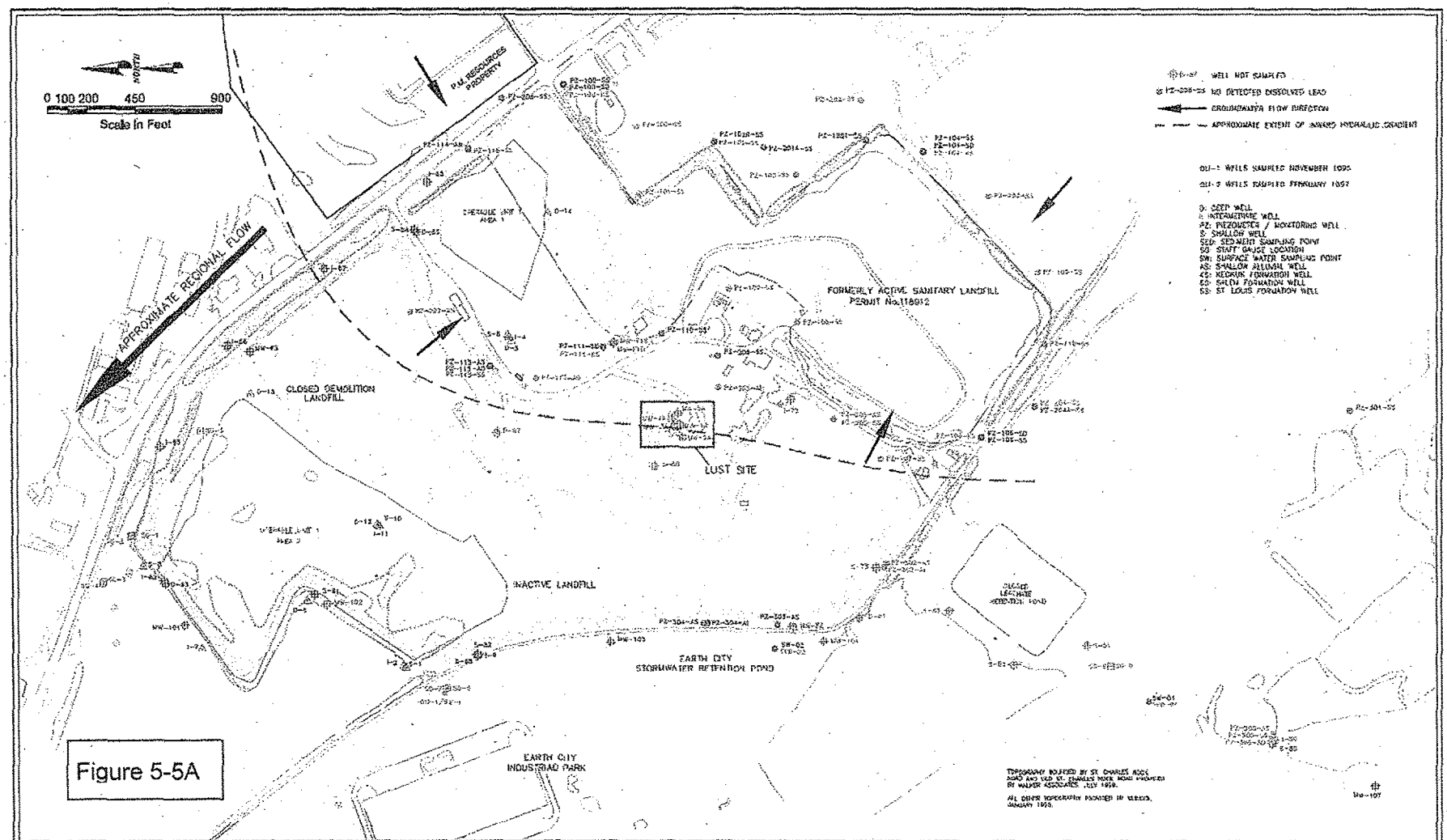


Figure 5-5A

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Dissolved Lead Results

42

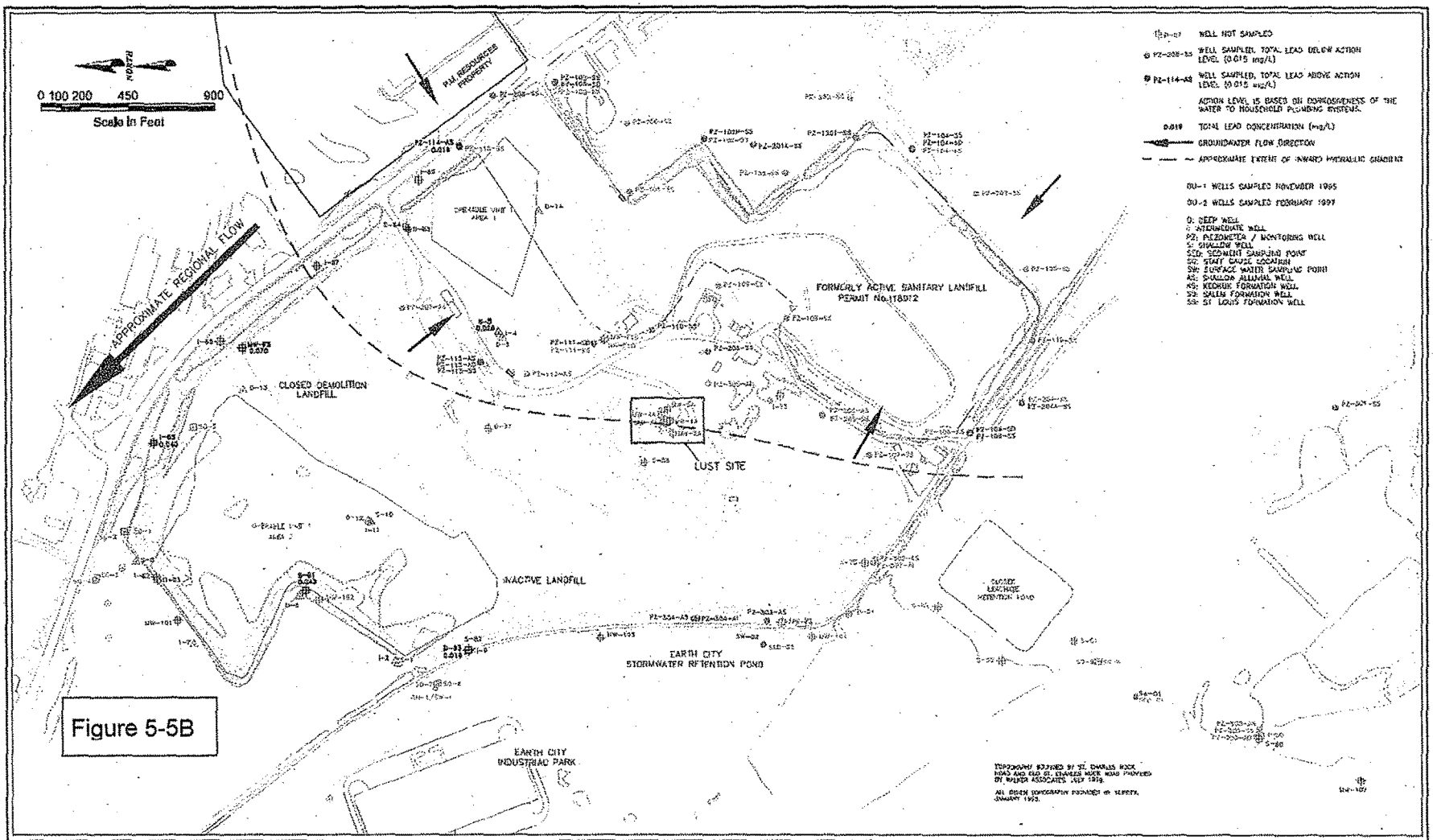


Figure 5-5B

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Total Lead Results

43

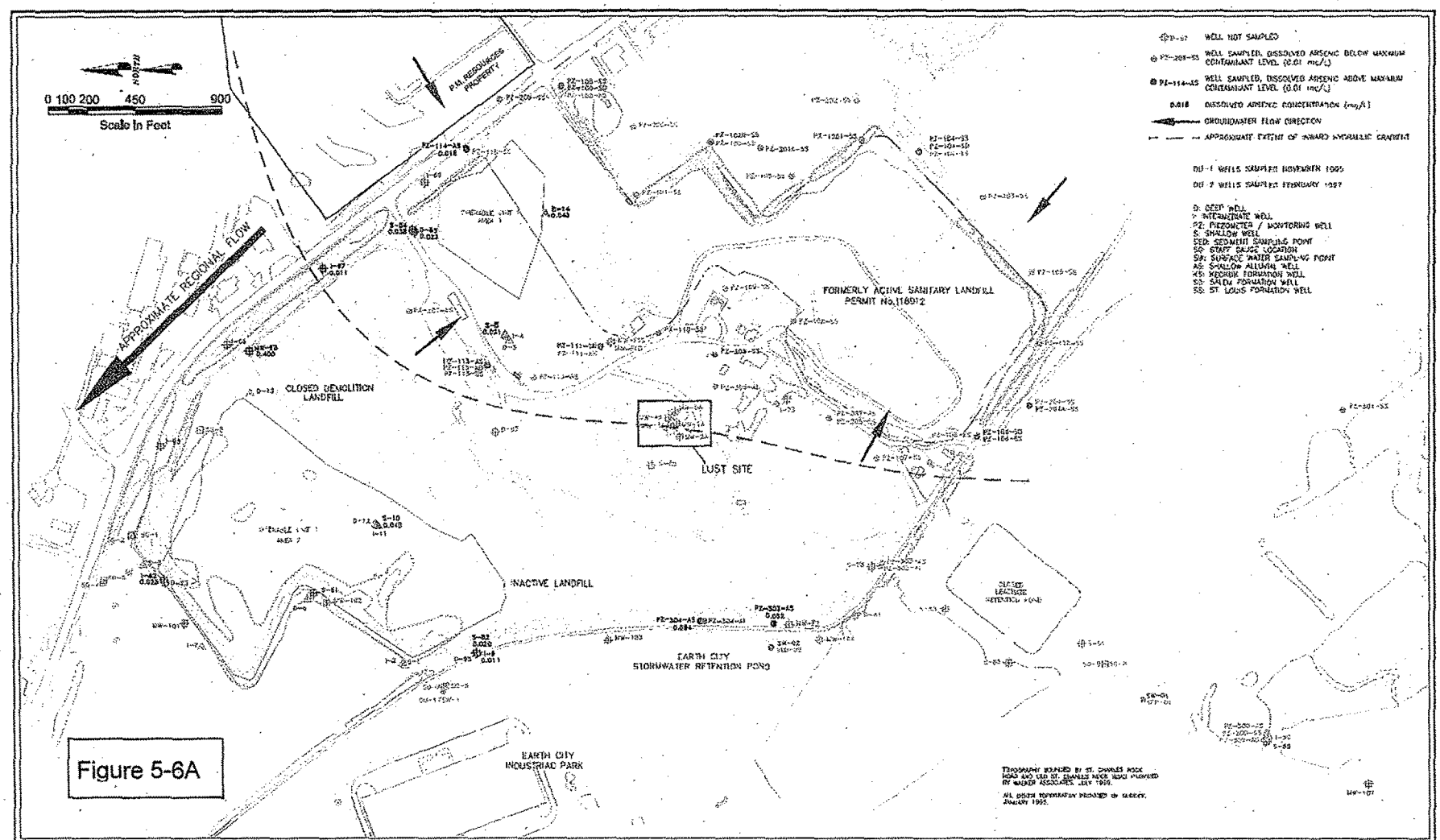


Figure 5-6A

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Dissolved Arsenic Results

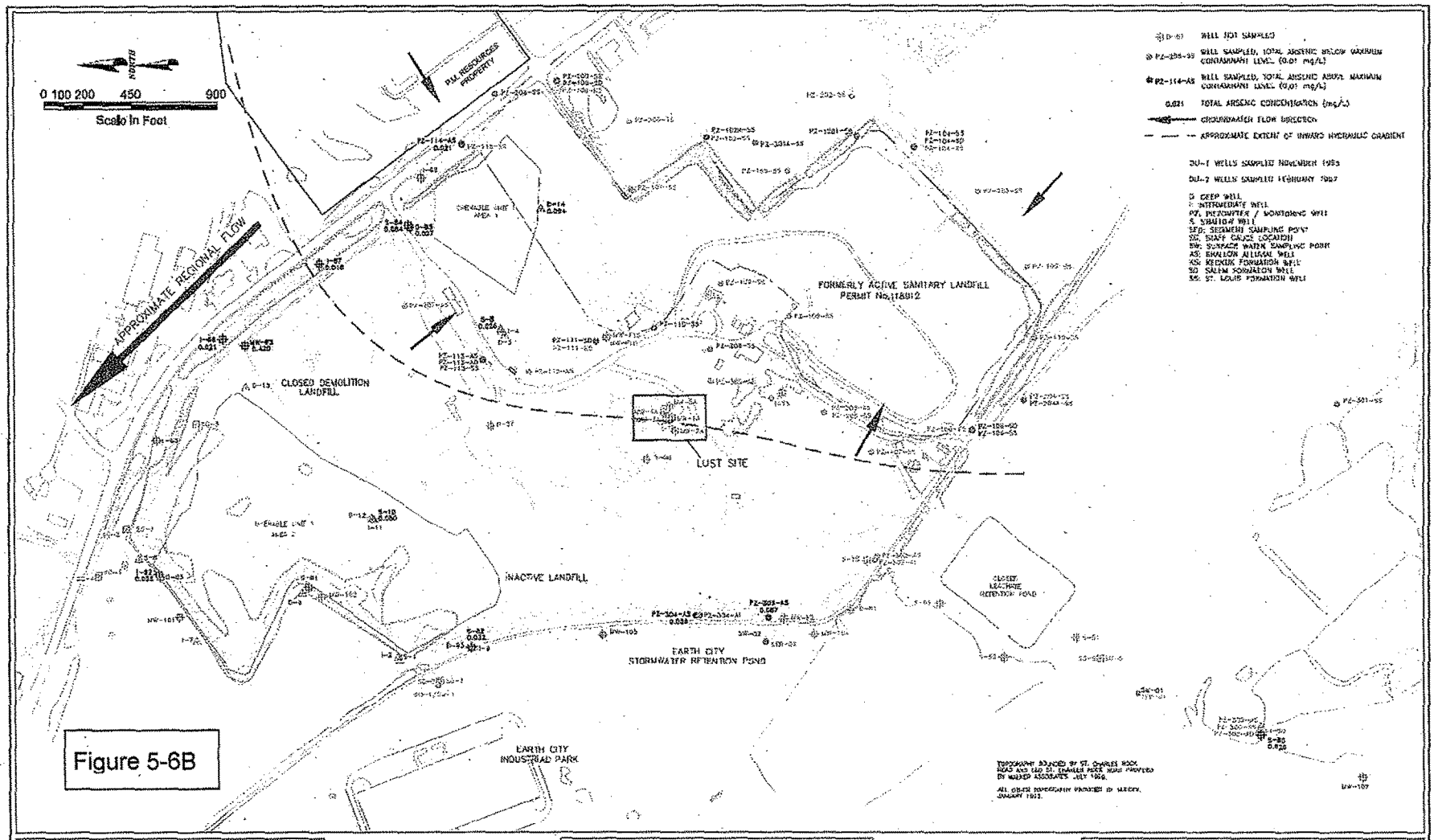


Figure 5-6B

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Total Arsenic Results

45

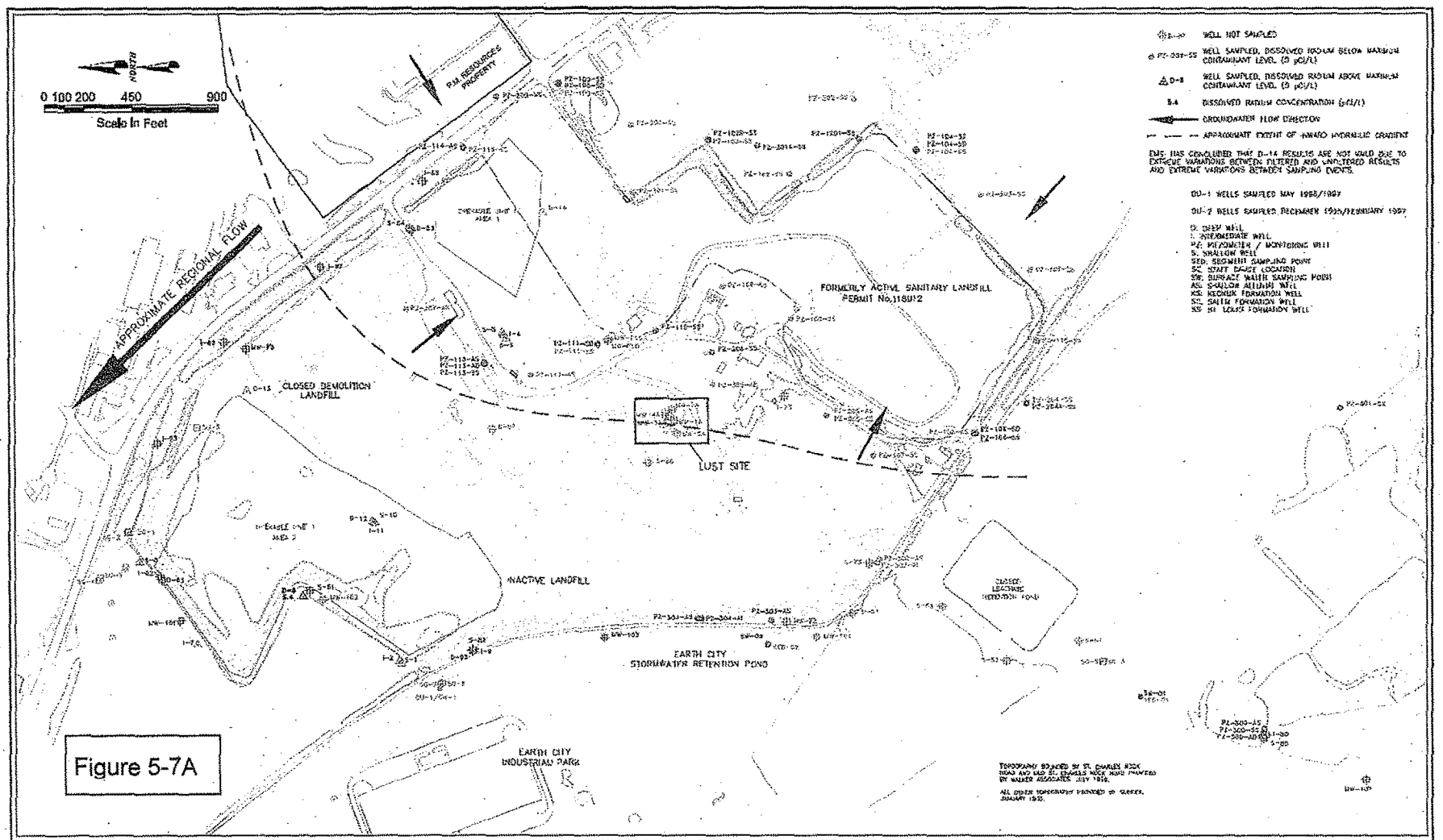


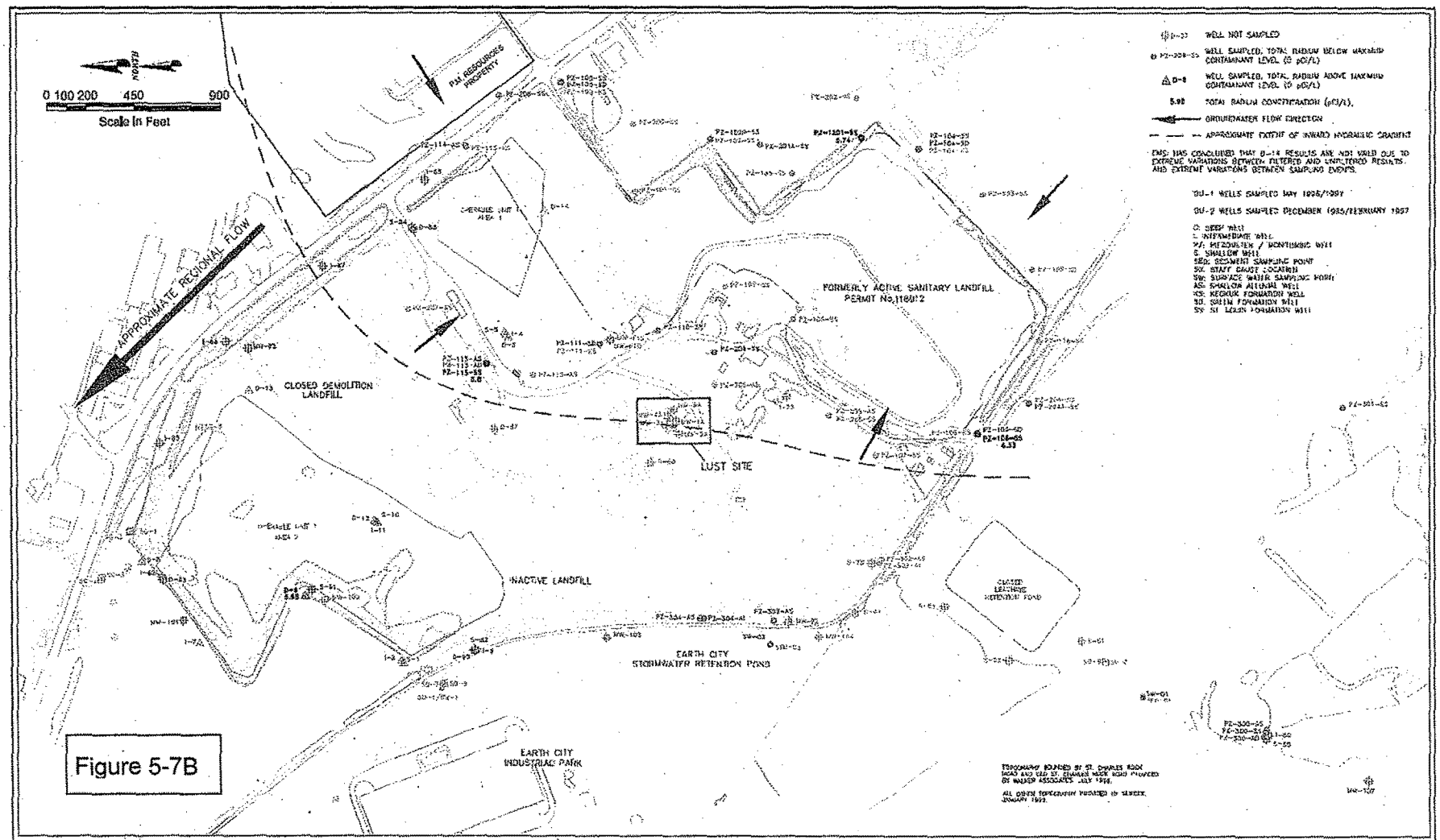
Figure 5-7A

HERST & ASSOCIATES, INC.

West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Dissolved Radium Results

46

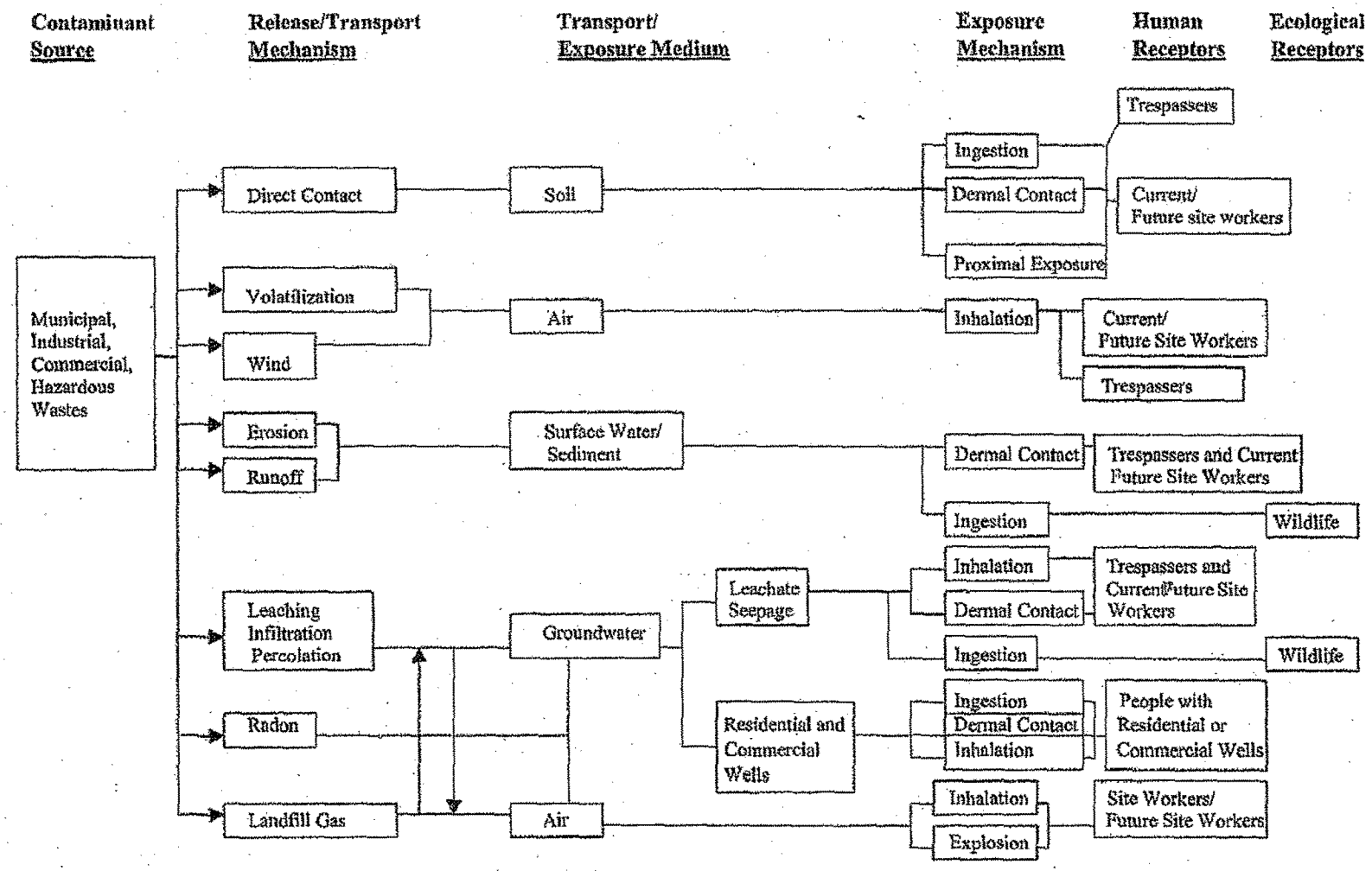


HERST & ASSOCIATES, INC.

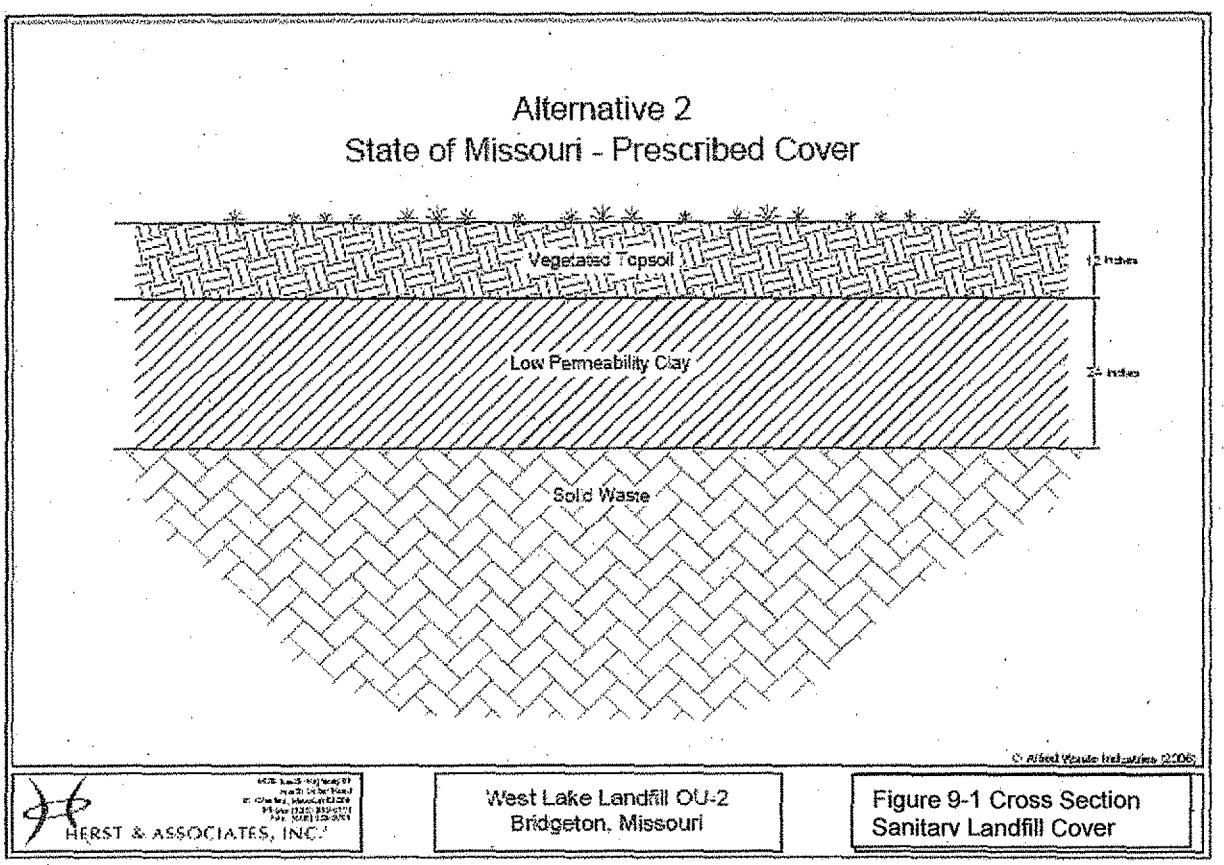
West Lake Landfill
Bridgeton, Missouri

Groundwater and Surface Water
Total Radium Results

Figure 7-1 Site Conceptual Model For West Lake Landfill Operable Unit 2



48


Alternative 2
State of Missouri - Prescribed Cover
Vegetated Topsoil
Low Permeability Clay
Solid Waste
HERST & ASSOCIATES, INC.
West Lake Landfill OU-2
Bridgeton, Missouri
Figure 9-1 Cross Section
Sanitary Landfill Cover

[redacted]

200504110024 5

JANICE M. HAMMONDS, RECORDER OF DEEDS
ST. LOUIS COUNTY MISSOURI
41 SOUTH CENTRAL, CLAYTON, MO 63105

TYPE OF INSTRUMENT	GRANTOR	TO	GRANTEE
AGRMT	**BRIDGETON LANDFILL L L C ETAL**		

PROPERTY DESCRIPTION: **YOSTI PARTITION LOT 1 - 4 PB 3 PG 101 W/O/P**

Lien Number	Notation	Locator

NOTE: I, the undersigned Recorder of Deeds, do hereby certify that the information shown on this Certication Sheet as to the **TYPE OF INSTRUMENT, the NAMES of the GRANTOR and GRANTEE as well as the DESCRIPTION of the REAL PROPERTY affected** is furnished merely as a convenience only, and in the case of any discrepancy of such information between this Certification Sheet and the attached Document, **the ATTACHED DOCUMENT governs.** Only the DOCUMENT NUMBER, the DATE and TIME of filing for record, and the **BOOK** and **PAGE** of the recorded Document is taken from this CERTIFICATION SHEET.

RECORDER OF DEEDS DOCUMENT CERTIFICATION

STATE OF MISSOURI)
SS.
COUNTY OF ST. LOUIS)

Document Number
245

I, the undersigned Recorder of Deeds for said County and State, do hereby certify that the following and annexed instrument of writing, which consists of 18 19 pages, (this page inclusive), was filed for record in my office on the 11 day of April 2005 at 09:02 AM and is truly recorded in the book and at the page shown at the top and/or bottom of this page.

In witness whereof I have hereunto set my hand and official seal the day, month and year aforesaid.

Joann Reber CB
Deputy Recorder

Janice M. Hammonds
Recorder of Deeds
St. Louis County, Missouri

SEAL OF THE RECORDER OF DEEDS FOR ST. LOUIS COUNTY, MO

____ N.P
____ N.P.C
____ N.N.C.
____ N.N.I.

RECORDING FEE **$72.00**
(Paid at the time of Recording

EXHIBIT
tabbies
C

Mail to:

Destination code: 14 P

B-16465 P-1140/1158

(17)

THE CITY OF ST. LOUIS, MISSOURI

AT

LAMBERT-ST. LOUIS INTERNATIONAL AIRPORT®

NEGATIVE EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS AGREEMENT

THIS NEGATIVE EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS AGREEMENT, dated as of April 6, 2005 (the "**Agreement**"), is made and entered into by and among the grantors, whose names and addresses are listed below (collectively referred to herein as the "**Grantors**") and THE CITY OF ST. LOUIS, a municipal corporation of the State of Missouri, as the grantee ("**St. Louis**"), whose address is City Hall, Room 200, 1200 Market Street, St. Louis, Missouri 63103, acting by and through its Board of Estimate and Apportionment and its City Counselor.

GRANTORS' NAMES AND ADDRESSES:

Bridgeton Landfill LLC, a Delaware limited liability company
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260

Rock Road Industries, Inc., a Missouri corporation
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260

Bridgeton Transfer Station, LLC, a Delaware limited liability company
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260

TIA 170270A-SC

165132.2

WITNESSETH THAT:

WHEREAS, the Grantors are the fee simple owners of certain real property located in St. Louis County, Missouri that is more fully described in **EXHIBIT "A"**, which is attached hereto and incorporated herein (the "**Property**");

WHEREAS, St. Louis is the owner and operator of Lambert-St. Louis International Airport® ("**Airport**");

WHEREAS, St. Louis wishes to impose certain limitations and restrictions on the use and enjoyment of the Property in order to reduce or mitigate the potential harm to airport-related activities that could be caused by certain wildlife or birds on or from the Property. Such wildlife may include various species (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard to aircraft; and

WHEREAS, the Grantors and St. Louis recognize that the grant of a negative easement by Grantors to St. Louis, and the declaration of restrictive covenants by Grantors, will assist in reducing or mitigating the potential harm to airport-related activities that could be caused by said wildlife.

NOW, THEREFORE, stating their intention to be legally bound hereby and in consideration of the foregoing, and the promises, covenants, and agreements herein contained, and for other good and valuable consideration, including the sum of FOUR HUNDRED THOUSAND DOLLARS ($400,000.00) in hand paid by St. Louis to Grantors, the receipt and sufficiency of which are hereby acknowledged, Grantors do hereby grant and convey unto St. Louis, its successors in interest and assigns, a negative easement, as more particularly described below, upon, over, in, and to the Property.

The negative easement granted herein and described below shall constitute a binding servitude upon the Property. To that end, Grantors do hereby covenant on behalf of themselves and their heirs, successors in interest and assigns with St. Louis, its successors in interest and assigns, such covenants and provisions being deemed to run with the land as a binding servitude in perpetuity, as provided for below, to do and to refrain from doing upon the Property the following stipulations, which contribute to the public purpose in that they aid in the reduction or mitigation of said potential wildlife or bird hazards on or from the Property, and hereby declare and impose the following restrictions upon the use and enjoyment of the Property:

1. There shall be no new or additional depositing or dumping of municipal waste, organic waste, and/or putrescible waste (municipal waste, organic waste and putrescible waste hereinafter collectively referred to as "Putrescible Waste") above, upon, on, or under the Property beginning as of August 1, 2005 and continuing in perpetuity, unless and until such time as this Agreement is terminated or canceled by St. Louis in accordance with the terms set out in paragraph 4 below. The parties acknowledge and agree that the restriction described in the preceding sentence does not, and shall not, in any way prohibit solid waste transfer station activities or operations conducted on the

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Transfer Station site as shown on the drawing attached hereto as Exhibit A (the "**Site**") as expanded to include any encroachments by solid waste transfer station buildings or improvement extending beyond the boundaries of the Site onto the Property at the time of the execution of this Agreement. For purposes of this Agreement, "**Putrescible Waste**" shall mean solid waste that contains organic matter capable of being decomposed by micro-organisms and of such a character and proportion as to be capable of attracting or providing food for birds. For purposes of this Agreement, "**Putrescible Waste**" shall not include solid waste that qualifies for disposal in a demolition landfill as defined in 10 CSR 8O-2.010(20).

2. At all times after the Effective Date (defined below), the Grantor shall comply with all applicable federal, state and local laws and regulations regarding proper landfill cover.

3. This Agreement shall become effective and binding on the date first written above upon the execution and delivery hereof by St. Louis and the Grantors (the "**Effective Date**"). This Agreement and any companion documents or instruments referred to herein may be executed in any number of counterparts, each of which shall be original, but all of which together shall constitute one document or instrument.

4. The term of this Agreement shall begin on the Effective Date and shall end only if and when St. Louis chooses in its sole and absolute discretion to abandon its negative easement granted herein by terminating or canceling this Agreement in writing and recording such writing with St. Louis County's Recorder of Deeds.

5. Except as provided for herein, Grantors reserve unto themselves all rights, privileges, powers, and immunities in and to the Property including, without limitation, the right of possession and the use and enjoyment of the Property.

6. Representatives and agents of St. Louis shall be permitted at reasonable times, which times shall be established in advance by St. Louis by three (3) days' written notice, to come upon the Property to inspect for violation of any of the promises, covenants, restrictions, or agreements herein ("**Inspections**"), except that if St. Louis has reasonable cause to believe that such violations are occurring or have occurred, St. Louis shall not be obligated to give said three (3) days' written notice or any other notice whatsoever to the Grantors. This right of Inspections is independent of any right-of-entry granted to the St. Louis under any separate agreement. Notwithstanding the foregoing, any representative or agent of St. Louis that comes upon the Property shall enter and exit the Property exclusively through the gate maintained by Grantors for such purpose and shall observe all customary formalities required by Grantors with respect to visitors including, but not limited to, immediately reporting their presence to Grantor's administrative personnel and signing in and signing out on appropriate security logs.

7. St. Louis shall promptly repair any damage it causes to the Property in the course of any Inspections, generally placing the Property and all points of entry in the same general condition as before the Inspections or entry, to the extent reasonably practical, ordinary wear and tear excepted, unless otherwise agreed to in writing by Grantors. All

Inspections, and all repairs to the Property arising from the Inspections, shall be at the sole cost of St. Louis. St. Louis and its representatives and agents shall use their best efforts to minimize damage to the Property and shall not substantially or materially disturb or interfere with the administration and/or operations of the Grantors when conducting its Inspections.

8. St. Louis, to the extent permitted by law, hereby agrees to indemnify, release and hold Grantors and their officers, employees, representatives and agents harmless from and against any and all losses, claims, judgments, actions, suits, cross-claims, counterclaims, third party actions, damages, liabilities, fines, penalties, including all reasonable costs for investigation and defense thereof (including, without limitation, attorneys' fees, court costs, expert fees and litigation expenses) and expenses in connection with loss of life, personal injury, bodily injury or damage to property, to the extent caused by or resulting from this Agreement (including activities conducted thereunder or relating thereto), the operations of the Airport in regard to aircraft bird strikes (provided that the Grantors are in compliance with the terms and provisions of this Agreement and the Right-Of-Entry Agreement dated April 16 2005 between St. Louis and the Grantors), the Inspections or the actions of St. Louis, its employees, contractors, representatives or agents in the course of the Inspections, except to the extent arising out of the negligence or intentional misconduct of the Grantors, or their officers, boards, commissions, employees, contractors, representatives, or agents. In case the Grantors or such other persons or entities shall be made a party to any action or proceeding commenced against St. Louis, to the extent provided in the preceding sentence, St. Louis shall protect and hold such parties harmless and pay all costs, expenses and reasonable attorneys' fees incurred or paid by such parties in connection with such action or proceeding. Grantors shall give to St. Louis reasonable notice of any such claims or actions. St. Louis shall use counsel reasonably acceptable to Grantors in carrying out their obligations hereunder. This indemnity provision shall survive the termination or cancellation of this Agreement, any and all sales or transfers of the Property or any portion thereof, or interest therein and shall be binding on St. Louis and its successors in interest and assigns and shall inure to the benefit of Grantors and their successors in interest and assigns.

9. In the event of a violation or default of any promise, covenant, restriction, stipulation, warranty, agreement, or provision ("**Provision**") herein by either party, the non-defaulting party shall have all rights and remedies available in law or equity including, without limitation, the right to specific performance and injunctive relief, and the right to institute a suit to enjoin such violation. Notwithstanding the above sentence, Grantors hereby expressly stipulate and agree that Grantors and their heirs, successors in interest and assigns shall not have the right to terminate or cancel this Agreement under any circumstance whether with or without cause. In the event of any dispute regarding any Provision of this Agreement or the rights, obligations, and liabilities of the parties with regard to this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party its reasonable attorneys' fees, court costs, and other litigation costs incurred in connection with such matter.

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10. All notices, requests, information or other documents required or permitted hereunder or necessary or convenient in connection with this Agreement shall be in writing and shall be deemed duly given upon receipt if sent by certified mail or by overnight or express mail service, with a return receipt, postage prepaid, and addressed to the parties as set forth below. Notice shall be deemed received at the earlier of actual receipt or two (2) calendar days after deposit with one of the mail services described in this paragraph. Any party may change the person or address to which notices are to be sent to it by giving written notice of such change to the other party in the manner herein provided for giving notice.

If to the Grantors (individually or collectively) to:

Bridgeton Landfill LLC
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260
Attn: Jo Lynn White

Rock Road Industries, Inc.
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260
Attn: Jo Lynn White

Bridgeton Transfer Station, LLC
15880 N. Greenway-Hayden Loop, Ste.100
Scottsdale, AZ 85260
Attn: Jo Lynn White

with a copy to:

Spencer Fane Britt & Browne LLP
Attn: Michael Hockley
1000 Walnut Street, Suite 1400
Kansas City, MO 64106-2140

If to St. Louis to:

Director of Airports
Task Orders, Agreement and Facility Issues
Lambert-St. Louis International Airport®
10701 Lambert International Boulevard
P.O. Box 10212, Lambert Station
St. Louis, MO 63145
and
Mr. Gerard Slay
Deputy Director of Airports

165132.2

Lambert-St. Louis International Airport®
Airport Operations
10701 Lambert International Boulevard
P.O. Box 10212, Lambert Station
St. Louis, MO 63145
(314) 426-8023
(314) 890-1844 FAX

with a copy to:

Mr. Donald L. Ruble, R.A.
Assistant Director of Planning and Development
Lambert-St. Louis International Airport®
Airport Planning and Development Office, 4th Floor
13723 Riverport Drive
Maryland Heights, MO 63043
(314) 551-5025
(314) 551-5013 FAX

11. No waiver of any breach of any Provision herein contained shall be deemed, or shall constitute, a waiver of any preceding or succeeding breach thereof of any Provision contained herein. No extension of time for performance of any obligation or act shall be deemed an extension of the time for performance of any other obligation or act. No waiver shall be binding unless executed in writing by the party granting the waiver.

12. The parties hereto covenant and warrant that they have the authority and power to enter into this Agreement, that this Agreement has been authorized by all necessary corporate and municipal actions, and that each party is authorized and empowered to consummate the transaction provided for herein. This Agreement constitutes a legal, binding, valid and enforceable obligation of the parties, and there are no claims or defenses, personal or otherwise, or offsets whatsoever to the enforceability or validity of this Agreement.

13. This Agreement constitutes the entire understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior or contemporaneous agreements, whether verbal or written, between the parties in regard thereto. This Agreement shall not be altered or modified except by an agreement in writing signed by the authorized representatives of the parties hereto, which writing specifically shall refer to this Agreement. It is expressly understood by the parties hereto that the provisions of this Agreement shall in no way affect or impair the provisions or obligations of St. Louis or the Grantors in regard to any other existing, contemporaneous, or prior agreements between the parties.

14. The parties hereto affirm each has full knowledge of the Provisions and requirements contained in this Agreement. Each party hereto acknowledges that such party and its counsel, after negotiation and consultation, have reviewed and revised this

Agreement. As such, the Provisions of this Agreement shall be fairly construed, and the usual rule or construction, if applicable, to the effect that any ambiguities herein should be resolved against the drafting party, shall not be employed in the interpretation of this Agreement or any amendments modifications or exhibits thereto.

15. If for any reason one or more of the Provisions contained in this Agreement shall be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other Provision of this Agreement and shall be construed as if such invalid, illegal, or unenforceable Provision never had been included in this Agreement, provided the invalidity of such Provision does not materially prejudice either St. Louis or the Grantors in their respective rights and obligations contained in the valid Provisions of this Agreement

16. When the consent, approval, waiver, or certification ("**Approval**") of a party is required under the terms of this Agreement, such Approval must be in writing and signed by the party making the Approval. Whenever the Approval of St. Louis or the Director of Airports is required, the Approval must be from the Director of Airports or his/her authorized or designated representative. Whenever the Approval of the Grantors is required (individually or collectively), the Approval must be from all fee owners of the Property or any portion thereof or their authorized or designated representatives. St. Louis and the Grantors agree that an extension of time of performance may be made with the written mutual consent of St. Louis and Grantors. Whenever the approval of St. Louis, the Director of Airports or the Grantors is required or necessary herein, no such approval shall be unreasonably requested, withheld, conditioned, or delayed.

17. MISCELLANEOUS PROVISIONS:

A. Not An Agent: St. Louis and Grantors acknowledge and agree that nothing herein shall be interpreted or construed to mean that the parties hereto, or their respective officers, contractors, consultants, employees, representatives, or agents are employees or agents of the other party.

B. Dates and Non-Business Days: Whenever a number of days is referred to in this Agreement, days shall mean consecutive calendar days unless otherwise expressly provided. If the last day for giving of notice or for performance of any obligation or condition hereunder is a Saturday, Sunday or federal, state, or city holiday, then such last day shall be extended to the next succeeding business day thereafter. Whenever it is provided in this Agreement that days shall be counted, the first day to be counted shall be the day following the date on which the event causing the period to commence occurs.

C. Other Documents: St. Louis and Grantors agree that, at the request of the other, they will execute, acknowledge, certify, (if appropriate), and deliver whatever additional documents, affidavits, certifications, and records, and perform such other acts in good faith, as may be reasonably required in order to accomplish the intent and purposes of this Agreement.

165132.2

D. Gender and Number: Whenever the sense of this Agreement so requires, the use of (i) the singular shall be deemed to include the plural, (ii) the masculine gender shall be deemed to include the feminine or neuter gender, and (iii) the neuter gender shall be deemed to include the masculine and feminine gender.

E. Exhibits: All exhibits described herein are fully incorporated into this Agreement by this reference as if fully set out herein. St. Louis and Grantors shall reasonably and in good faith finalize and attach all such exhibits to this Agreement, which may not have been in final form as of the Effective Date, or may require revisions. St. Louis hereby authorizes the Director of Airports to revise or approve said amendments or revisions to the exhibits on behalf of St. Louis.

F. Compliance with Laws and Regulations: This Agreement does not affect such other obligations as the Grantor may have under applicable federal, state, or local laws and regulations including, without limitation, 40 C.F.R 258.10.

TO HAVE AND TO HOLD unto St. Louis and unto its successors in interest and assigns forever. The Provisions of this Agreement and the parties' rights, commitments, and obligations within, shall be binding on the parties hereto, their respective heirs, successors in interest, and assigns. Every party acquiring or holding any interest or estate in any portion of the Property shall take or hold such interest or estate, or the security interest with respect thereto, with notice of this Agreement and of the Provisions of this Agreement. In accepting any interest or estate in, or any security interest with respect to any portion of the Property, such party shall be deemed to have assented to all of the Provisions hereof. The Provisions of this Agreement shall run with the land. To that end, this Agreement shall be deemed incorporated into all deeds and conveyances hereinafter made by Grantors and any heirs, successor in interest or assigns thereto. Grantors, for themselves, their heirs, successors in interest and assigns, hereby acknowledge, stipulate, and agree that the Provisions agreed to and the restrictions imposed, as aforesaid, shall be binding rights and privileges granted hereunder appertaining or belonging to St. Louis, its successors in interest and assigns, and shall continue as a servitude running in perpetuity with the Property, unless abandoned and terminated by St. Louis as provided for in paragraph 4 above.

{Signature pages to follow.]

165132.2

IN WITNESS WHEREOF, the Grantors and St. Louis have entered into this Negative Easement and Declaration of Restrictive Covenants Agreement on the date first written above.

GRANTORS:

BRIDGETON LANDFILL, LLC

By: Rusty Walorsp

Title: Vice President

STATE OF MISSOURI }
}
COUNTY OF ST. LOUIS }

On this 1st day of April 2005, before me appeared Rusty Walorsp, being by me duly sworn, and did state that he is a Vice President of Bridgeton Landfill, LLC, a Delaware limited liability company; that said instrument was signed and sealed on behalf of Bridgeton Landfill, LLC; and that he acknowledged said instrument to be the free act and deed of Bridgeton Landfill, LLC.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in the County of St. Louis.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

BRAD R. GEURIN
My Commission Expires
September 21, 2008
St. Louis County

Brad R. Geurin
Notary Public

My commission expires: 9/21/08.

165132.2

NAME OF GRANTOR:
ROCK ROAD INDUSTRIES, INC.

By: Rusty

Title: Vice President

STATE OF MISSOURI }
}
COUNTY OF ST. LOUIS }

On this 1st day of April 2005, before me appeared Rusty WALDRUP, being by me duly sworn, and did state that he is a Vice President of Rock Road Industries, Inc, a Missouri corporation; that said instrument was signed and sealed on behalf of said corporation and that he acknowledged said instrument to be the free act and deed of Rock Road Industries, Inc.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in the County of St Louis.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

BRAD R. GEURIN
My Commission Expires
September 21, 2008
St. Louis County

Brad R Geurin
Notary Public

My commission expires: 9/21/08.

165132.2

NAME OF GRANTOR:
BRIDGETON TRANSFER STATION, LLC

By: _____

Title: Vice President

STATE OF MISSOURI }
}
COUNTY OF ST. LOUIS }

On this 1st day of April 2005, before me appeared Rusty WALDRUP, being by me duly sworn, and did state that he is a Vice President of Bridgeton Transfer Station, LLC, a Delaware limited liability company; that said instrument was signed and sealed on behalf of Bridgeton Transfer Station, LLC and that he acknowledged said instrument to be the free act and deed of Bridgeton Transfer Station, LLC.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in the County of St Louis.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

BRAD R. GEURIN
My Commission Expires
September 21, 2008
St. Louis County

Brad R Geurin
Notary Public

My commission expires: 9/21/08.

165132.2

ST. LOUIS/GRANTEE:

THE CITY OF ST. LOUIS, MISSOURI, OWNER AND OPERATOR OF LAMBERT-ST. LOUIS INTERNATIONAL AIRPORT®

Pursuant to The City of St. Louis' Ordinance No. 64279, approved March 9, 1998, as amended.

The foregoing Negative Easement and Declaration of Restrictive Covenants Agreement was approved by the Board of Estimate and Apportionment at its meeting on March 16, 2005.

Secretary, Board of Estimate & Apportionment — Date 3/17/05

APPROVED BY:

City Counselor, The City of St. Louis

COUNTERSIGNED BY:

Comptroller, The City of St. Louis — Date 3-22-05

ATTESTED TO BY:

Register, The City of St. Louis — Date MAR 22 2005

COMPTROLLER'S OFFICE
DOCUMENT # 50337

STATE OF MISSOURI }
}
CITY OF ST. LOUIS }

On this 3rd day of March 2005, before me appeared ~~Patricia A. Hageman~~ Edward J. Hanlon to me personally known, who being by me duly sworn, did say that she is the City Counselor of The City of St. Louis, Missouri, a municipal corporation, and that the seal affixed to the foregoing instrument is the corporate seal of The City of St. Louis and that said instrument was signed and sealed on behalf of The City of St. Louis pursuant to Ordinance No. 64279, approved March 9, 1998, as amended.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in the City of St. Louis, Missouri.

Notary Public

My commission expires: _____.

PATRICIA A FLEMING
Notary Public - Notary Seal
STATE OF MISSOURI
ST. LOUIS CITY
MY COMMISSION EXP. AUG. 28,2006

165132.2

STATE OF MISSOURI }
}
CITY OF ST. LOUIS }

On this 17th day of March 2005, before me appeared Yudora T. Mason to me personally known, who being by me duly sworn, did say that she is the Secretary for the Board of Estimate and Apportionment of The City of St. Louis, Missouri, a municipal corporation, and that the foregoing instrument was approved by the Board of Estimate and Apportionment on March 16, 2005, on behalf of The City of St. Louis pursuant to Ordinance No. 64279, approved March 9, 1998, as amended.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in the City of St. Louis, Missouri.

Karen Jackson
Notary Public

My commission expires: April 1, 2008.

Notary Public Notary Seal State of Missouri

KAREN JACKSON
St. Louis City
My Commission Expires
April 1, 2008

BRIDGETON LANDFILL LLC-NEGATIVE EASEMENT- FINAL DRAFT 2-09-05, MAP

165132.2

Exhibit A
Legal Description of Property
For Negative Easement and Declaration of
Restrictive Covenants Agreement

TRACT I
PROPERTY DESCRIPTION OF
ACTIVE LANDFILL MINUS TRANSFER STATION

A tract of land being part of U.S. Survey 131, all of Lots 1, 2, 3, and 4 of the Yosti Partition as recorded in Survey Record Book 3 Page 101 of the St. Louis City (former County) records, part of Lots 20 and 21 of the St. Charles Ferry Company tract as recorded in Plat Book 7 Pages 98 and 99 of the St. Louis City (former County) records, and being located in U.S. Surveys 131 and 1934, Townships 46 and 47 North, Range 5 East of the Fifth Principal Meridian, City of Bridgeton, St. Louis County, Missouri, and being more particularly described as follows:

Beginning at the most Westerly corner of Lot 3 of the Boundary Adjustment Plat of Lots 1 and 3 of West Lake Acres Plat Two, a subdivision according to the plat thereof recorded in Plat Book 348 Page 667 of the St. Louis County, Missouri Records; thence South 36 degrees 52 minutes 59 seconds East along the Southwesterly line of said Lot 3 and the Southwesterly line of Lot 4 of West Lake Acres Plat Two, a subdivision according to the plat thereof recorded in Plat Book 344 Page 261 of said records a distance of 486.26 feet to a point on the Northwesterly line of last said Lot 4; thence South 53 degrees 06 minutes 26 seconds West along said Northwesterly line 437.11 feet to a point on the Southwesterly line of last said Lot 4; thence South 36 degrees 52 minutes 59 seconds East along last said Southwesterly line 779.68 feet to a point on the Northwesterly line of Lot 13 of Foersters Subdivision, a subdivision according to the plat thereof recorded in Plat Book 10 Page 55 of the St. Louis City (former County) records, thence South 45 degrees 59 minutes 06 seconds West along said Northwesterly line of said Lot 13 and the Northwesterly line of Lot 12 of said Foersters Subdivision 1349.58 feet to the Northerly line of Old St. Charles Rock Road, 60 feet wide, also known as Boenker Lane; thence North 54 degrees 25 minutes 17 seconds West along said Northerly line 858.18 feet to a point on the centerline of Taussig Avenue, 40 feet wide (vacated); thence North 34 degrees 48 minutes 55 seconds East along said centerline 100.00 feet to a point on the Northeasterly line of a tract of land as conveyed to Laidlaw Waste Systems (Bridgeton), Inc. according to the instrument recorded in Book 11082 Page 319 of the St. Louis County Records; thence North 54 degrees 25 minutes 17 seconds West along said Northeasterly line 120.00 feet to a point on the Northwesterly line of above said Laidlaw Waste Systems (Bridgeton), Inc. tract; thence South 34 degrees 45 minutes 34 seconds West along said Northwesterly line 130.00 feet to a point on the centerline of above said Old St. Charles Rock Road (vacated); thence along said centerline the following courses and distances: North 54 degrees 25 minutes 17 seconds West 991.55 feet, North 00 degrees 43

minutes 42 seconds East 997.52 feet, North 04 degrees 40 minutes 18 seconds West 477.70 feet, North 10 degrees 25 minutes 18 seconds West 348.30 feet, North 24 degrees 52 minutes 18 seconds West 349.50 feet; thence North 32 degrees 08 minutes 18 seconds West 22.38 feet to a point on the Southeasterly line of a tract of land as conveyed to Rock Road Industries, Inc. according to the instrument recorded in Book 12868 Page 1159 of the St. Louis County Records; thence North 35 degrees 35 minutes 04 seconds East 824.56 feet to a point on the Southwesterly line of a tract of land as conveyed to Rock Road Industries, Inc. according to the instrument recorded in Book 8356 Page 1807 of said records, and being a point on the common line between U.S. Survey 47 and U.S Survey 1934, Township 47 North, Range 5 East; thence South 66 degrees 04 minutes 54 seconds East along said Southwesterly line and said common line 167.44 feet to a point on the Southwesterly line of said Rock Road Industries, Inc. tract; thence South 36 degrees 52 minutes 59 seconds East along last said Southwesterly line and the Southwesterly line of a tract of land as conveyed to West Lake Landfill, Inc. according to the instrument recorded in Book 5262 Page 311 of above said records, and departing above said common line South 36 degrees 52 minutes 59 seconds East 1221.43 feet to a point on the Southeasterly line of a tract of land as conveyed to above said West Lake Landfill, Inc. tract, and being a point on the common line between U.S. Survey 131 and U.S Survey 47, Township 47 North, Range 5 East; thence North 54 degrees 46 minutes 17 seconds East along said Southeasterly line and said common line 1188.94 feet to a point on the Southwesterly line of Highway 40, also known as St. Charles Rock Road, variable width; thence South 37 degrees 11 minutes 37 seconds East along said Southwesterly line 1087.25 feet; thence departing said Southwesterly line the following courses and distances: South 01 degrees 32 minutes 48 seconds West 57.51 feet, South 54 degrees 30 minutes 23 seconds West 312.95 feet and South 35 degrees 29 minutes 37 seconds East 30.00 feet to a point on the Northwesterly line of above said Lot 3 of the Boundary Adjustment Plat of Lots 1 and 3 of West Lake Acres Plat Two; thence South 54 degrees 30 minutes 23 seconds West along said Northwesterly line 340.00 feet and South 48 degrees 34 minutes 23 seconds West 68.21 feet to the POINT OF BEGINNING and containing 7,119,040 square feet or 163.43 acres more or less according to a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, and most recently revised February 15, 2005.

AND EXCEPTING THEREFROM the following:

A tract of land being part of Lot 1 of the Yosti Partition as recorded in Survey Record Book 3 Page 101 of the St. Louis City (former County) Records and part of U.S. Survey 131 in Township 47 North, Range 5 East of the Fifth Principal Meridian, City of Bridgeton, St. Louis County, Missouri, and being the same property as described in Ordinance Number 03-26 approved by the City of Bridgeton on June 18, 2003, and being more particularly described as follows:

Commencing at a point on the Southwesterly line of Highway 40, also known as St. Charles Rock Road, variable width, with the intersection of the common line between U.S.

Survey 131 and U.S. Survey 47, Township 47 North, Range 5 East; thence South 37 degrees 11 minutes 37 seconds West along said Southwesterly line 72.80 feet to the POINT OF BEGINNING of the herein described tract; thence continuing along said Southwesterly line South 37 degrees 11 minutes 37 seconds East 137.01 feet; thence departing said Southwesterly line the following courses and distances: South 57 degrees 54 minutes 34 seconds West 1023.24 feet, South 32 degrees 40 minutes 35 seconds West 181.33 feet, South 36 degrees 52 minutes 59 seconds East 771.12, South 53 degrees 07 minutes 01 seconds West 332.71 feet, North 10 degrees 28 minutes 16 seconds West 198.67 feet, North 20 degrees 00 minutes 51 seconds East 166.52 feet, North 30 degrees 50 minutes 21 seconds East 404.44 feet, North 04 degrees 38 minutes 30 seconds East 131.00 feet, North 37 degrees 13 minutes 19 seconds West 153.74 feet, and North 57 degrees 54 minutes 34 seconds East 1260.74 feet to the POINT OF BEGINNING and containing 347,048 square feet or 7.967 acres more or less according to a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, and most recently revised February 15, 2005.

The above property (less exception) contains 6,771,992 square feet or 155.464 acres more or less according to a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

TRACT II

All of Lot 4 of West Lake Acres Plat II, according to the plat thereof recorded in Plat Book 344 Page 261 of the St. Louis County Records.

The above property is shown on as parcel 3 on a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

TRACT III

Part of Lots 12 and 13 of the "Foersters Subdivision" in U.S. Survey 131 in Township 46 North, Range 5 East of the Fifth Principal Meridian, St. Louis County, Missouri, said part being more particularly described as follows:

Beginning at the most southerly corner of Lot 4 of Yosti Partition, being the same as the most westerly corner of said Lot 12 of Foersters Subdivision; thence North 45 degrees 59 minutes 04 seconds East, along the northwesterly line of Lots 12 and 13 of Foersters Subdivision, being the same as the southeasterly line of Lot 4 of Yosti Partition, a distance of 1349.58 feet to a concrete monument which marks the most northerly corner of said Lot 13; thence South 36 degrees 53 minutes 01 seconds East, along the northeasterly line of said Lot 13, a distance of 151.17 feet to its intersection with a line which lies 150 feet southeasterly of and parallel to the northwesterly lines of said Lots 12 and 13 of the Foersters Subdivision; thence South 45 degrees 59 minutes 04 seconds West, along said parallel line, a distance of 1303.26 feet

to the northerly right of way line of "Old St. Charles Rock Road"; thence North 54 degrees 25 minutes 19 seconds West, along said right of way line, a distance of 152.51 feet to the Point of Beginning.

The above property is shown on as parcel 4 on a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

TRACT IV
Lot 3 of the Boundary Adjustment Plat of Lots 1 and 3 of West Lake Acres Plat II, according to the plat thereof recorded in Plat Book 348 Page 657 of the St. Louis County Records.

The above property is shown on as parcel 6 on a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

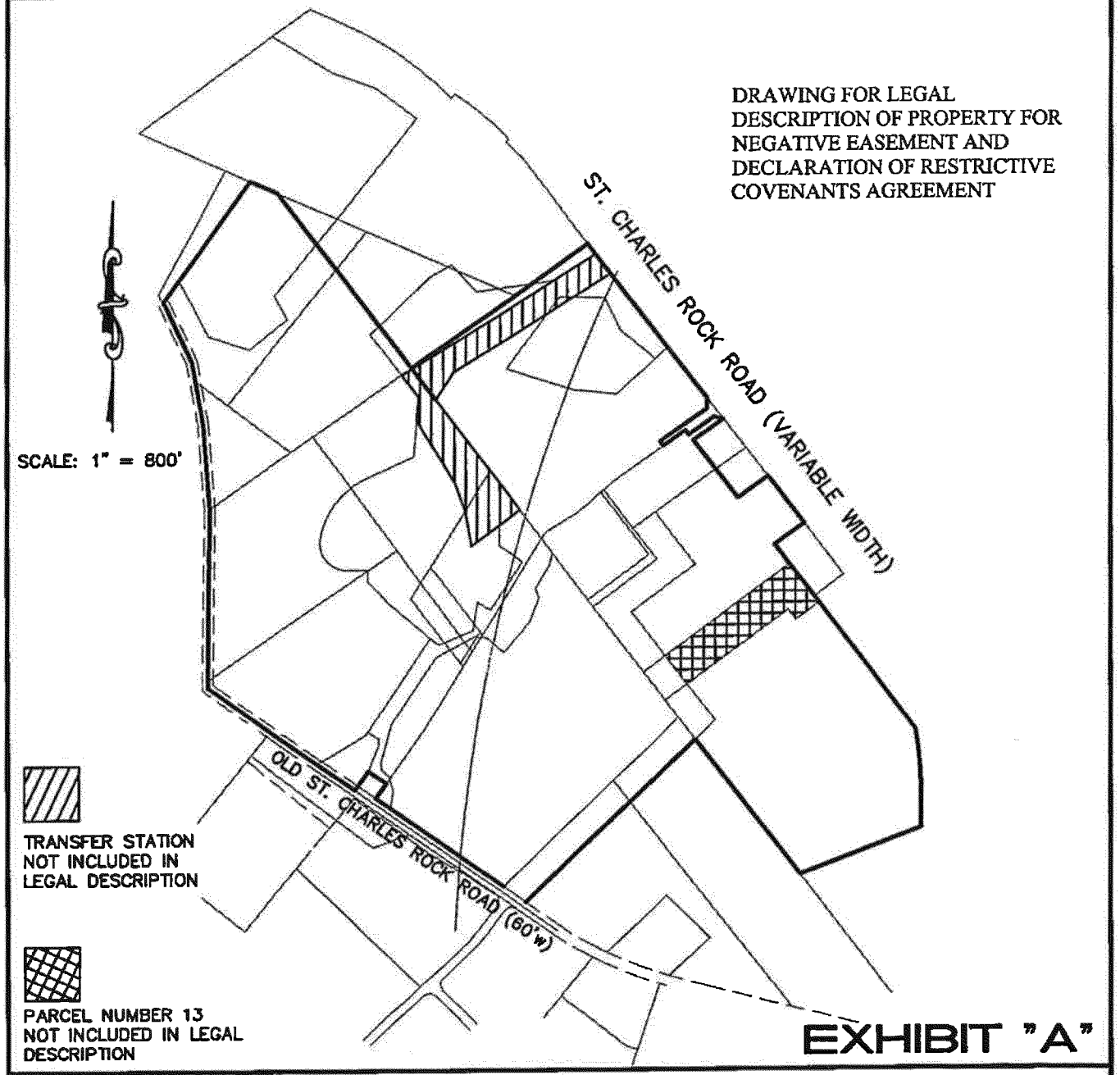
TRACT V
All of Lot 5 of West Lake Acres Plat II, according to the plat thereof recorded in Plat Book 344 Page 261 of the St. Louis County Records.

The above property is shown on as parcel 7 on a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

TRACT VI
Lot 6 of West Lake Acres Plat II, according to the plat thereof recorded in Plat Book 344 Page 261 of the St. Louis County Records.

The above property is shown on as parcel 8 on a survey by Stock & Associates Consulting Engineers, Inc. dated November 19, 2004, most recently revised March 9, 2005 and on file with the City of St. Louis.

DATE 3-9-05 JOB NO. 204-3327



A TRACT OF LAND BEING PART OF WEST LAKE ACRES PLAT II AS RECORDED IN PLAT BOOK 344 PAGE 261, PART OF THE BOUNDARY ADJUSTMENT PLAT OF LOTS 1 AND 3, OF WEST LAKE ACRES PLAT II AS RECORDED IN PLAT BOOK 348 PAGE 667 AND PART OF FOERSTERS SUBDIVISION AS RECORDED IN PLAT BOOK 342 PAGE 68, ALL OF THE ST. LOUIS COUNTY RECORDS; PART OF THE YOSTI PARTITION AS RECORDED IN SURVEY RECORD BOOK 3 PAGE 101 AND PART OF THE ST. CHARLES FERRY COMPANY TRACT AS RECORDED IN PLAT BOOK 7 PAGES 98 AND 99, ALL OF THE ST. LOUIS CITY (FORMER COUNTY) RECORDS AND PART OF US SURVEY 131 LOCATED IN U.S. SURVEYS 47, 131 AND 1934, TOWNSHIPS 46 & 47 NORTH, RANGE 5 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF BRIDGETON, ST. LOUIS COUNTY, MISSOURI

204-3327\SURVEY\3327EXHIBIT.DWG

5

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

I, the undersigned Recorder of Deeds, within and for the county of St. Louis, state of Missouri, do hereby certify that the foregoing is a true and complete copy of

MUTUAL AGREEMENT

Document# 2005041100245

as the same appears of record in my office which is recorded in book 16465 page 1140

IN WITNESS, my hereof I have hereunto set my hand and affixed the Seal of said office on 07-31-2015

By _____
Deputy Recorder

Gerald E. Smith

Gerald E. Smith
Recorder of Deeds, St. Louis County, MO

SEAL OF THE RECORDER OF DEEDS FOR ST. LOUIS COUNTY, MO

LAMBERT-ST. LOUIS
INTERNATIONAL AIRPORT®

Rhonda Hamm-Niebruegge
Director

Francis G. Slay
Mayor
City of St. Louis

November 19, 2014

Mr. Karl Brooks
Regional Administrator
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, KS 66219

Re: Isolation Barrier Alternatives Analysis, West Lake Landfill Superfund Site

Dear Mr. Brooks:

Thank you for providing The City of St. Louis ("City"), the owner and operator of Lambert-St. Louis International Airport (the "Airport"), the opportunity to comment on the above-referenced Isolation Barrier study, dated October 10, 2014 (the "Study"), which was prepared on behalf of Bridgeton Landfill, LLC ("BL"). The City understands that the U.S. Environmental Protection Agency ("EPA") is dealing with an extremely complicated subsurface smoldering events at the West Lake Landfill Superfund Site ("Site") that may pose a potential impact to the public's health and safety. Clearly, this is an enormously complex project that must also deal with very complex mitigation issues at the Site, and we appreciate the opportunity to be involved.

The City has shared the Study with the Federal Aviation Administration ("FAA") and the U.S. Department of Agriculture, Animal and Plant Health Inspection Services - Wildlife Services ("USDA-APHIS-WS") and has consulted and coordinated with each agency in the course of evaluating the Study. As requested, this letter provides the City's comments on the Study from the Airports perspective in regard to bird and wildlife hazards to aircraft navigation due to the Site's proximity to the Airport.

The City has no expertise in determining whether landfill materials need to be isolated, nor is the City able to comment on the technical effectiveness or feasibility of any of the isolation methods evaluated in the Study. Such matters are not within the expertise of the City, the Airport, FAA or USDS-APHIS-WS. The City's sole purpose in reviewing the Study and the various options evaluated in the Study is to ensure that bird and wildlife hazards to aircraft navigation to and from the Airport will be addressed adequately in whatever action is determined appropriate to address the ongoing subsurface smoldering events at and/or near the Site. In addition, in making comments on this Study, the City is in no way commenting on or evaluating any matters regarding the final or any interim remedy for the Site. The City's comments relate solely to the Study.

P.O. Box 10212 | St. Louis, MO 63145-0212 U.S.A. | City of St. Louis Airport Authority | Main Phone 314-426-8000 | Fax: 314-426-5733

FlySTL.com

General Considerations

As you know, the City holds a negative easement at the Bridgeton Landfill and certain areas in the vicinity of the Bridgeton Landfill to ensure that the landfills in this area will not pose a bird hazard to aircraft. Putrescible waste attracts birds, which create a safety hazard to air navigation. Any new operation that exposes putrescible waste in such close proximity to the Airport could result in a new bird hazard to aircraft, impacting the safety of the 13 million plus passengers who fly in and out of the Airport every year. The City's considerations with the options set forth in the Study focus on the amount putrescible waste that would be exposed under each option, on the length of time such waste would be exposed, and on the manner in which the waste is extracted and exposed. The more putrescible waste is exposed, the longer the term of the exposure, and the larger the area of exposure, the greater the potential for a bird hazard to aircraft. Any option chosen by the EPA that would expose putrescible waste must include a robust wildlife hazard identification, monitoring, mitigation, and elimination plan to identify the potential for bird hazards very early, before any bird activity is established because once a bird hazard to aircraft develops, it is much more difficult to control and eliminate.

As you are aware, the City has reviewed and approved BL's Bird Hazard Monitoring and Mitigation Plan for Ongoing Landfill Work (Revised June 24, 2014), which deals with limited ongoing work as defined and provided for therein and **expressly excludes** more extensive waste disturbance like the construction of an isolation barrier but does include monitoring and mitigation of bird issues regarding the basins at the Site. As the City has articulated in previous correspondence to the EPA, any time putrescible waste is excavated or exposed at the Site, a bird monitoring and mitigation plan containing the elements set forth below must be implemented. The more putrescible waste exposed, the more rigorous and detailed the plan must be. The necessary elements of a bird monitoring and mitigation plan for an isolation barrier plan must include the following:

1) Mitigation measures during work. Mitigation measures during excavation of putrescible waste to minimize bird attractants must be an integral element of any work plan and these measures need to be implemented throughout the time that any putrescible waste is exposed. Depending upon the particular work, the measures may include routine covering of excavated materials, closed containers, rapid off-site waste disposal or other measures to minimize the exposure of putrescible waste to wildlife. In addition, any work that will cause the on-site pooling of storm water runoff or other water must be designed to minimize the time that pooled water accumulates.

2) Appropriately trained personnel. All mitigation and monitoring measures must be developed or approved by and work supervised by professionals trained in wildlife management and control. The professionals must have appropriate experience not only in wildlife management, but also in means to identify and control wildlife hazards. Training comparable to FAA Advisory Circular 150/5200-36A as may be amended, or alternative training and experience reasonably approved by the City is necessary.

3) Daily monitoring. Monitoring for bird hazards by trained personnel on at least a daily basis at all times when putrescible waste is exposed. At a minimum appropriately trained personnel must be on-site on a daily basis to monitor, assess and document bird populations and identify any potential bird hazard during active excavation. It is essential to timely identify the creation or development of a bird hazard so that it may be eliminated quickly before aircraft safety issues develop.

4) Control measures. If monitoring indicates a bird population increase or a potential bird hazard, the plan must call for additional measures to control and eliminate birds. These control measures must be directed and implemented by appropriately trained individuals. A robust and flexible bird repellant program must be implemented including escalating measures such as an intensive harassment program including the use of pyrotechnics, propane cannons, trapping and, where necessary, lethal control to ensure birds do not congregate at the Site. Appropriate equipment for dispersing birds must be on-site at all time and staff must be properly trained in the equipment use and application.

5) Reporting. The City will need weekly reports of bird populations and immediate reports of any bird hazard identified during any time periods when putrescible waste is exposed.

6) Reimbursement agreement. Before construction starts, the City will need to have in place an agreement with BL to reimburse the Airport for expenses associated with monitoring and, if necessary, responding to any bird hazards at the landfill during the project due to BL's refusal or failure to timely respond.

Isolation barrier plans that require excavation of large quantities of putrescible materials will necessarily require a much more detailed bird management and control plan, especially in terms of mitigation measures, than barrier plans with minimal or no waste excavation.

Comments on Individual Options

We reviewed the Study including Mr. Rolph A. Davis, Ph.D. report dated October 7, 2014, attached as Exhibit D to the Study and entitled "Isolation Barrier Alternative Analysis - Bird Control Issues". The City concurs in general with Dr. Davis's evaluation of the various options and agrees that the final details of the bird management and control plan will need to be determined in coordination with the City during the engineering phase of the project once the barrier option has been selected. Listed below are the City's comments on the individual options.

No Action. The Study indicates that the No Action alternative would not create additional bird attractions. The City will point out that even under the No Action alternative, measures that are currently being implemented would be continued and such measures do have the potential to attract birds since additional storm water detention is occurring and some excavation is necessary to maintain wells and perform other activities associated with the landfill cap. The City acknowledges, however, that if landfill personnel are appropriately trained and the

current Bird Hazard Monitoring and Mitigation Plan is implemented, unmanageable bird hazards are not anticipated.

Option 1: Inert Barrier Along Alignment 1. The Study indicates this option involves the excavation of 52,000 bank cubic yards ("bcy") of putrescible waste and the redeposition of this waste on-site. Approximately seven acres of disturbed putrescible waste would be involved and waste would be exposed for 40 weeks. The City agrees that this option poses a strong potential for the exposure of waste that will attract wildlife to the excavation and redeposition areas. A rigorous bird hazard and mitigation plan would need to be implemented and the project itself will need to be designed to minimize exposing putrescible waste. In addition, since the potential for a bird hazard cannot be known completely until the work is in progress, the project plan will need to include the ability to halt construction, eliminate hazards and design additional bird hazard mitigation measures during construction, if a bird hazard develops.

Option 2: Air Gap Barrier. This Option 2 **was not proposed** for additional detailed evaluation due to the significant disadvantages associated with this approach as set out in the Study. The Study does indicate that at least 540,000 bcy of waste would need to be excavated to implement this option and the option would involve 400 days of excavation. It appears that the areas of waste exposed could exceed the areas found in typical operating landfills, which pose a bird hazard to aircraft operations when located in close proximity to airports. Since such hazards generally cannot be mitigated successfully, operating landfills are prohibited in proximity to an airport (*see Hazardous Wildlife Attractants On or Near Airport – Advisory Circular 2150/5200 – 33B*). It is very doubtful that any excavation under this option could be successfully implemented without creating substantial risk hazards to air navigation.

Option 3: Inert Barrier Along Alignment 3. The Study indicates this option involves the excavation of 63,500 bcy of waste and redeposition of waste on-site. Approximately seven acres of disturbed putrescible waste would be involved and waste would be exposed for 48 weeks, including newer waste that may be more attractive to birds. Similar to Option 1, the City agrees that this option poses a strong potential for the exposure of waste that will attract wildlife to the excavation and redeposition areas. A rigorous bird hazard and mitigation plan would need to be implemented for this project and the project itself would need to be designed to minimize exposing putrescible waste. In addition, since the potential for a bird hazard cannot be known completely until the work is in progress, the project plan will need to include the ability to halt construction, eliminate hazards and design additional bird hazard mitigation measures during construction, if a bird hazard develops.

Option 4: Heat Extraction Barrier. The Study indicates that no or only minimal waste excavation/relocation is anticipated to be necessary to implement the heat extraction barrier so that no bird mitigation/management measures are necessary. The City is skeptical that no waste will be excavated to implement this remedy; however, this option appears to pose a very low chance of developing a bird hazard to aircraft. Given that work would be conducted within the waste material, the City would expect a bird hazard monitoring and mitigation plan to be developed for the work. However, unmanageable bird hazards are not anticipated under this option.

The City will continue to coordinate its efforts with the FAA and the USDA-APHIS-WS and will continue to work with EPA as it evaluates options for isolating waste at the Site. We appreciate the opportunity to comment on the Study and we are available to discuss our concerns and comments, at your convenience.

Very truly yours,

Rhonda Hamm-Niebruegge
Director of Airports

cc: The Honorable Chris Koster
Aaron Schmidt, MDNR
Jessica E. Merrigan, Lathrop & Gage
Mario Pandolfo, Associate City Counselor
Gerald A. Beckmann