

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM, P.A.
Brownfields, Transactions, Due Diligence, Development, Permitting, Cleanups & Compliance

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June 11, 2024

Via Email Only

Mr. George R. Keller, Jr., City Manager
City of Hollywood
2600 Hollywood Boulevard
Hollywood, FL 33020

Re: Request for Designation of the Property Located at 301 and 315 S 62nd Avenue & Van Buren St., Hollywood, FL 33023, identified by Parcel ID Numbers 5141-13-27-0140, 5141-13-18-0280, and 5141-13-18-0270, as a Green Reuse Area Pursuant to Florida's Brownfields Redevelopment Act

Dear Mr. Keller:

On behalf of Yashasim, LLC ("Yashasim"), we are pleased to submit the enclosed request for designation of the above-referenced parcels (the "Subject Property"), as a Green Reuse Area pursuant to section 376.80(2)(c), Florida Statutes, of Florida's Brownfields Redevelopment Act. When fully developed, the Subject Property will include a 215,000-square-foot parking lot for logistics use with approximately 450-500 parking spaces, including a 1,000-square-foot guardhouse and a 3,000-square-foot building. The completed project will have an estimated cost of approximately \$4.1 million. Property cards and legal descriptions depicting the Subject Property's location are enclosed at Exhibit A.

Yashasim is applying for this designation to utilize an important state economic and regulatory assistance program available to developers and local governments in situations where the risk of contamination is demonstrated to overwhelm key opportunities for land revitalization and job growth. In this instance, there is onsite contamination that has significantly complicated redevelopment efforts and created a host of logistical, design, engineering, and construction concerns for Yashasim. These concerns can be easily mitigated with the assistance and resources offered by Florida's Brownfields Program and come at no cost to the City.

Mr. George R. Keller, Jr., City Manager

June 11, 2024

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In considering a request for designation as a Green Reuse Area under Florida's Brownfields Redevelopment Act, a local government must evaluate and apply the criteria set forth in section 376.80(2)(c), Florida Statutes. As reflected in the Statement of Eligibility incorporated herein at Exhibit B, Yashasim meets such statutory criteria. Accordingly, based on the foregoing, we respectfully request that staff recommend approval. Of course, as you evaluate the application and supporting materials, please feel free to contact us with any questions or should further information be required. Thank you.

Very truly yours,

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM, P.A.



Brett C. Brumund, Esq.

/bcb

Enclosures

cc: Douglas R. Gonzales, Esq., City of Hollywood City Attorney
Andria Wingett, Development Services Director
Yashasim, LLC
Michael R. Goldstein, Esq., Environmental Counsel for Yashasim, LLC

Exhibit A

PROPERTY SUMMARY

Tax Year: 2024	Property Use: 10-01 Vacant Commercial	Deputy Appraiser: Commercial Department
Property ID: 514113270140	Millage Code: 0513	Appraisers Number: 954-357-6835
Property Owner(s): YASHASIM LLC	Adj. Bldg. S.F.: 0	Email: commercialtrim@bcpa.net
Mailing Address: 6100 HOLLYWOOD BLVD SUITE 407 HOLLYWOOD, FL 33024	Bldg Under Air S.F.:	Zoning : S-MU
Physical Address: 315 S 62 AVENUE HOLLYWOOD, 33023	Effective Year: 0	Abbr. Legal Des.: 13-51-41 PART OF SW1/4 AS DESC IN DB 526/142-LOT 14 LE-
	Year Built:	
	Units/Beds/Baths: 0 / /	

PROPERTY ASSESSMENT

Year	Land	Building / Improvement	Agricultural Saving	Just / Market Value	Assessed / SOH Value	Tax
2024	\$2,460,070	0	0	\$2,460,070	\$2,179,050	
2023	\$2,460,070	0	0	\$2,460,070	\$1,980,960	\$45,110.10
2022	\$2,050,060	0	0	\$2,050,060	\$1,800,880	\$38,943.19

EXEMPTIONS AND TAXING AUTHORITY INFORMATION

	County	School Board	Municipal	Independent
Just Value	\$2,460,070	\$2,460,070	\$2,460,070	\$2,460,070
Portability	0	0	0	0
Assessed / SOH	\$2,179,050	\$2,179,050	\$2,179,050	\$2,179,050
Granny Flat				
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exemption Type	0	0	0	0
Affordable Housing	0	0	0	0
Taxable	\$2,179,050	\$2,460,070	\$2,179,050	\$2,179,050

SALES HISTORY FOR THIS PARCEL

Date	Type	Price	Book/Page or Cin
07/08/2007	Warranty Deed Qualified Sale	\$2,208,000	44380 / 1428
08/17/2006	Quit Claim Deed	\$57,000	42715 / 80

LAND CALCULATIONS

Unit Price	Units	Type
\$12.00	205,006 SqFt	Square Foot

RECENT SALES IN THIS SUBDIVISION

Property ID	Date	Type	Qualified/ Disqualified	Price	CIN	Property Address
514113270172	08/30/2023	Warranty Deed	Disqualified Sale	\$2,900,000	119086827	6200 HOLLYWOOD BLVD HOLLYWOOD, FL 33023
514113270020	07/13/2022	Special Warranty Deed	Qualified Sale	\$575,000	118313649	100 S STATE ROAD 7 HOLLYWOOD, FL 33023

SPECIAL ASSESSMENTS

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc
Hlwd Fire Rescue (05)								
Vacant Lots (L)								
1								

SCHOOL

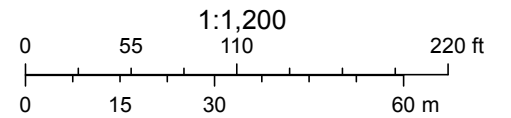
Orange Brook Elementary: C
Apollo Middle: C
McArthur High: C

ELECTED OFFICIALS

Property Appraiser	County Comm. District	County Comm. Name	US House Rep. District	US House Rep. Name
Marty Kiar	7	Tim Ryan	25	Debbie Wasserman Schultz
Florida House Rep. District	Florida House Rep. Name	Florida Senator District	Florida Senator Name	School Board Member
105	Marie Woodson	37	Jason W. B. Pizzo	Daniel P. Foganholi



April 30, 2024



Legal Description

Folio No. 514113270140

Lot or Tract 14, of LYNDON ESTATES, according to the unrecorded map of LYNDON ESTATES, a Subdivision of the Southwest ¼ of Section 13, Township 51 South, Range 41 East, according to the map prepared by N.E. Berry, April, 1944. Said Lot or Tract comprises approximately the North ½ of the Southwest ¼ of the Northeast ¼ of the Southwest ¼ of said Section 13, and is more particularly described as follows:~Commencing at a point on the North line of the Southwest ¼ of said Section 13, which is 670 feet West of the Northeast corner of the Southwest ¼ of said Section 13, thence running South 2° 11' 16" East, a distance of 710 feet to a point, which is the point of beginning of the description of the land hereby conveyed; thence South 88° 46' 17" West, a distance of 662.97 feet to the West line of the Northeast ¼ of the Southwest ¼ of said Section 13; thence running South 2° 05' 43" East along the West line of the Northeast ¼ of the Southwest ¼ of said Section 13, a distance of 322.14 feet; thence North 89° 10' 41" East, a distance of 663.62 feet; thence North 2° 11' 16" West, a distance of 325 feet, more or less, to the Point of Beginning. Said lands situate, lying and being in Broward County, Florida.~

PROPERTY SUMMARY

Tax Year: 2024	Property Use: 10-01 Vacant Commercial	Deputy Appraiser: Commercial Department
Property ID: 514113180280	Millage Code: 0513	Appraisers Number: 954-357-6835
Property Owner(s): YASHASIM LLC	Adj. Bldg. S.F.: 0	Email: commercialtrim@bcpa.net
Mailing Address: 6100 HOLLYWOOD BLVD 7FL HOLLYWOOD, FL 33024	Bldg Under Air S.F.:	Zoning : S-MU
Physical Address: 301 S 62 AVENUE HOLLYWOOD, 33023	Effective Year: 2006	Abbr. Legal Des.: LYNDON PARK 29-25 B LOT 29
	Year Built: 2005	
	Units/Beds/Baths: 0 / /	

PROPERTY ASSESSMENT

Year	Land	Building / Improvement	Agricultural Saving	Just / Market Value	Assessed / SOH Value	Tax
2024	\$89,670	\$1,900	0	\$91,570	\$87,170	
2023	\$89,670	\$1,900	0	\$91,570	\$79,250	\$1,759.35
2022	\$76,860	\$1,900	0	\$78,760	\$72,050	\$1,538.04

EXEMPTIONS AND TAXING AUTHORITY INFORMATION

	County	School Board	Municipal	Independent
Just Value	\$91,570	\$91,570	\$91,570	\$91,570
Portability	0	0	0	0
Assessed / SOH	\$87,170	\$87,170	\$87,170	\$87,170
Granny Flat				
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exemption Type	0	0	0	0
Affordable Housing	0	0	0	0
Taxable	\$87,170	\$91,570	\$87,170	\$87,170

SALES HISTORY FOR THIS PARCEL

Date	Type	Price	Book/Page or Cin
09/22/2008	Multi Warranty Deed Disqualified Sale	\$325,000	45746 / 1563
09/01/1989	Warranty Deed		16770 / 131
05/01/1962	Warranty Deed	\$8,750	

LAND CALCULATIONS

Unit Price	Units	Type
\$14.00	6,405 SqFt	Square Foot

RECENT SALES IN THIS SUBDIVISION

Property ID	Date	Type	Qualified/ Disqualified	Price	CIN	Property Address
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SPECIAL ASSESSMENTS

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc
Hlwd Fire Rescue (05)								
Vacant Lots (L)								
1								

SCHOOL

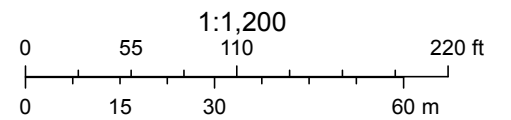
Orange Brook Elementary: C
Apollo Middle: C
McArthur High: C

ELECTED OFFICIALS

Property Appraiser	County Comm. District	County Comm. Name	US House Rep. District	US House Rep. Name
Marty Kiar	7	Tim Ryan	25	Debbie Wasserman Schultz
Florida House Rep. District	Florida House Rep. Name	Florida Senator District	Florida Senator Name	School Board Member
105	Marie Woodson	37	Jason W. B. Pizzo	Daniel P. Foganholi



April 30, 2024



PROPERTY SUMMARY

Tax Year: 2024	Property Use: 10 - Vacant commercial	Deputy Appraiser: Commercial Department
Property ID: 514113180270	Millage Code: 0513	Appraisers Number: 954-357-6835
Property Owner(s): YASHASIM LLC	Adj. Bldg. S.F.: 0	Email: commercialtrim@bcpa.net
Mailing Address: 6100 HOLLYWOOD BLVD 7FL HOLLYWOOD, FL 33024	Bldg Under Air S.F.:	Zoning : S-MU
Physical Address: VAN BUREN STREET HOLLYWOOD, 33023	Effective Year: 1999	Abbr. Legal Des.: LYNDON PARK 29-25 B LOT 28
	Year Built:	
	Units/Beds/Baths: 0 / /	

PROPERTY ASSESSMENT

Year	Land	Building / Improvement	Agricultural Saving	Just / Market Value	Assessed / SOH Value	Tax
2024	\$89,680	\$3,350	0	\$93,030	\$80,150	
2023	\$89,680	\$3,350	0	\$93,030	\$72,870	\$1,676.16
2022	\$76,870	\$3,350	0	\$80,220	\$66,250	\$1,462.11

EXEMPTIONS AND TAXING AUTHORITY INFORMATION

	County	School Board	Municipal	Independent
Just Value	\$93,030	\$93,030	\$93,030	\$93,030
Portability	0	0	0	0
Assessed / SOH	\$80,150	\$80,150	\$80,150	\$80,150
Granny Flat				
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exemption Type	0	0	0	0
Affordable Housing	0	0	0	0
Taxable	\$80,150	\$93,030	\$80,150	\$80,150

SALES HISTORY FOR THIS PARCEL

Date	Type	Price	Book/Page or Cin
09/22/2008	Multi Warranty Deed Disqualified Sale	\$325,000	45746 / 1563
09/01/1989	Warranty Deed		16770 / 131
04/01/1973	Warranty Deed	\$10,000	

LAND CALCULATIONS

Unit Price	Units	Type
\$14.00	6,406 SqFt	Square Foot

RECENT SALES IN THIS SUBDIVISION

Property ID	Date	Type	Qualified/ Disqualified	Price	CIN	Property Address
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SPECIAL ASSESSMENTS

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc
HLwd Fire Rescue (05)								
Vacant Lots (L)								
1								

SCHOOL

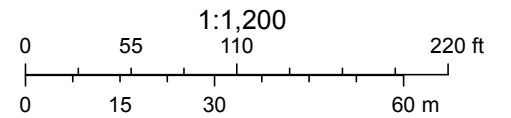
Orange Brook Elementary: C
Apollo Middle: C
McArthur High: C

ELECTED OFFICIALS

Property Appraiser	County Comm. District	County Comm. Name	US House Rep. District	US House Rep. Name
Marty Kiar	7	Tim Ryan	25	Debbie Wasserman Schultz
Florida House Rep. District	Florida House Rep. Name	Florida Senator District	Florida Senator Name	School Board Member
105	Marie Woodson	37	Jason W. B. Pizzo	Daniel P. Foganholi



April 30, 2024



Legal Description

Folio Nos. 51411318028 & 514113180270

Lots 28 and 29 of LYNDON PARK, a subdivision according to the Plat thereof, as recorded in Plat Book 29, Page 25 of the Public Records of Broward County, Florida.

Exhibit B

Green Reuse Area Designation Eligibility Statement

Yashasim Green Reuse Area

301 and 315 South 62nd Avenue & Van Buren Street, Hollywood, FL 33023
Parcel ID Nos. 5141-13-27-0140, 5141-13-18-0280, and 5141-13-18-0270

Yashasim, LLC (“Yashasim”) proposes to redevelop and rehabilitate three parcels of land located approximately at 301 and 315 South 62nd Avenue, Hollywood, Florida 33023 and Van Buren Street, Hollywood, Florida 33023, identified by Parcel ID Numbers 5141-13-27-0140, 5141-13-18-0280, and 5141-13-18-0270 (the “Subject Property”), with a 215,000-square-foot parking lot for logistics use with approximately 450-500 parking spaces, including a 1,000-square-foot guardhouse and a 3,000-square-foot building (the “Project”). As demonstrated herein, the Project meets all five of the applicable designation criteria set forth at § 376.80(2)(c), Florida Statutes.¹ In addition, the Subject Property meets the definition of a “brownfield site” pursuant to § 376.79(4), Florida Statutes.

I. Subject Property Satisfies the Statutory Criteria for Designation

1. Agreement to Redevelop the Brownfield Site. As the first requirement for designation, Florida Statutes § 376.80(2)(c)(1) provides that “[a] person who owns or controls a potential brownfield site is requesting the designation and has agreed to rehabilitate and redevelop the brownfield site.”

Yashasim satisfies this criterion in that it owns the Subject Property as evidenced by two Warranty Deeds, dated July 8, 2007, and September 22, 2008, respectively.² Yashasim further satisfies this criterion in that it agrees to redevelop and rehabilitate the Subject Property, subject to City and County oversight and approvals. Accordingly, Yashasim meets this first criterion.

2. Economic Productivity. As the second requirement for designation, Florida Statutes § 376.80(2)(c)(2) provides that “[t]he rehabilitation and redevelopment of the proposed brownfield site will result in economic productivity of the area, along with the creation of at least 5 new permanent jobs at the brownfield site that are full-time equivalent positions not associated with the implementation of the rehabilitation agreement and that are not associated with redevelopment project demolition or construction activities pursuant to the redevelopment of the proposed brownfield site or area. However, the job creation requirement shall not apply to the rehabilitation and redevelopment of a brownfield site that will provide affordable housing as defined in s. 420.0004 or the creation of recreational areas, conservation areas, or parks.”

Yashasim satisfies this criterion in that the Project will result in significant economic productivity for the area. The budget for rehabilitation and redevelopment is approximately \$4.1 million, which will be spent in part on local labor, contractors, consultants, construction materials, furnishings, infrastructure improvements, and impact fees. This work will support roughly 30 temporary construction jobs over the period of development. The construction workers will spend a percentage of their salaries with local merchants who, in turn, will reinvest locally in their respective businesses, as well as the businesses of other local merchants. Additionally, the proposed development is expected to create up to 200 permanent full-time equivalent jobs. For all the reasons discussed herein, Yashasim meets this second criterion.

3. Consistency with Local Comprehensive Plan and Permittable Use under Local Land Development Regulations. As the third requirement for designation, Florida Statutes § 376.80(2)(c)(3) provides that “[t]he redevelopment of the proposed brownfield site is consistent with the local comprehensive plan and is a permittable use under the applicable local land development regulations.”

¹ A copy of § 376.80, Florida Statutes, can be found at [Attachment A](#) to this Eligibility Statement.

² See [Attachment B](#), Warranty Deeds, dated July 8, 2007, and September 22, 2008.

Yashasim satisfies this criterion in that the Project is located in a Commercial Land Use District. Moreover, two parcels have a future land use designation of State Road 7 Transit Oriented Corridor (“TOC”)³ and one parcel has a future land use designation of General Business. The Commercial Land Use District, as well as the TOC and General Business future land use designations, explicitly allow for “office and business uses” and “parking lots.”⁴

As such, the Project is consistent with the City of Hollywood Comprehensive Plan and is a permissible use under the Subject Property’s current land use regulations.

4. Public Notice and Comment. Florida Statutes § 376.80(2)(c)(4) stipulates that “[n]otice of the proposed rehabilitation of the brownfield area has been provided to neighbors and nearby residents of the proposed area to be designated, and the person proposing the area for designation has afforded to those receiving notice the opportunity for comments and suggestions about rehabilitation. Notice pursuant to this subsection must be posted in the affected area.” Additional notice requirements pertaining to applicants other than a governmental entity can be found at Florida Statutes § 376.80(1)(c)(4)(b) and consist of publication in a newspaper of general circulation in the area, publication in ethnic newspapers or local community bulletins, and announcement at a scheduled meeting of the local governing body before the actual public hearing.

Yashasim satisfies all applicable notice and opportunity to comment requirements established by Florida Statutes § 376.80(2)(c)(4) and § 376.80(1)(c)(4)(b) as follows:

- (i) notice is being posted at the Subject Property;*
- (ii) notice is being published in the Sun Sentinel;*
- (iii) notice is being published in the Hollywood community bulletin section of Craig’s List; and*
- (iv) a community meeting will be held on September 16, 2024, at 6:00 p.m. at the Boulevard Heights Community Center*

All notices will contain the following narrative:

Representatives for Yashasim, LLC, will hold a community meeting on September 16, 2024, from 6:00 p.m. until not later than 7:30 p.m., at the Boulevard Heights Community Center located at 6770 Garfield St., Hollywood, FL 33024, for the purpose of affording interested parties the opportunity to provide comments and suggestions about the potential designation of land located approximately at 301 and 315 South 62nd Avenue & Van Buren Street, Hollywood, FL 33023, identified by Folio Numbers 5141-13-27-0140, 5141-13-18-0280, and 5141-13-18-0270, as a Green Reuse Area. This Community Meeting will also address future development and rehabilitation activities planned for the site. The designation is being made pursuant to Section 376.80, Florida Statutes, of Florida’s Brownfield Redevelopment Act, and will involve two public hearings before the City Commission for the City of Hollywood, dates to be announced, to be held in the City of Hollywood City Hall, Commission Chambers, located at 2600 Hollywood Boulevard, Room 219, Hollywood, FL 33020-4807.

For more information regarding the community meeting, including directions, the dates of the two public hearings, or to provide comments and suggestions regarding designation, development, or rehabilitation at any time before or after the meeting date, please contact Brett C. Brumund, who can be reached by phone at (305) 640-5300, by email at bbrumund@goldsteinmlaw.com, and/or U.S. Mail at The Goldstein Environmental Law Firm, P.A., 2100 Ponce de Leon Blvd., Suite 710, Coral Gables, FL 33134.

Proof of publication and posting will be provided to the City.

³ See Hollywood Zoning Code, South Mixed-Use District (n.d.): <https://codehub.gridics.com/us/fl/hollywood#/2bc753b0-c817-44be-b214-5dd108307f09/b1f5c6a9-60b0-4f51-8f29-1cd7c80ba939/66be9ee0-ec2c-4ccf-a3d7-abad35a4ba6/5637d6bd-f234-45b7-afcb-9314efc4eca1>.

⁴ See City of Hollywood Comprehensive Plan Land Use Element, LU-54 and LU-64 (Jan. 2008): <https://www.hollywoodfl.org/DocumentCenter/View/93/comprehensiveplan?bidId=>.

5. Reasonable Financial Assurance. As the fifth requirement for designation, Florida Statutes § 376.80(2)(c)(5) provides that “[t]he person proposing the area for designation has provided reasonable assurance that he or she has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan.”

The total capital budget of approximately \$4.1 million for the Project is fully funded through the financial resources of Yashasim with additional support as needed from financial institutions with which Yashasim has longstanding relationships. In addition, Yashasim’s development team has an extensive track record of success in financing and building various office and business developments, with over 20 years of experience across South Florida and Broward County. Yashasim and its team have a history of leveraging assets with other capital sources, an impressive track record of success, and a staff of highly experienced and sophisticated development officials. Therefore, Yashasim provides reasonable assurance that Yashasim has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan.⁵ Accordingly, it satisfies this fifth and last criterion.

II. Subject Property Meets the Definition of Brownfield Site

Section 376.79(4), Florida Statutes, defines “brownfield site” to mean “. . . real property, the expansion, redevelopment, or reuse of which may be complicated by actual or perceived environmental contamination.” The facts here evidence that the Subject Property falls within the definition of the term “brownfield site” in that actual contamination exists on the Subject Property that has complicated redevelopment for Yashasim. Specifically, concentrations of arsenic that exceed the Florida Department of Environmental Protection’s (“FDEP”) Residential Direct Exposure Cleanup Target Levels (“CTLs”) for soil and groundwater, and concentrations of Benzo(a)Pyrene equivalents (“BaP”) that exceed FDEP’s Commercial/Industrial CTLs for soil and leachability are documented on the property,⁶ likely as a result of the property’s historical use as a golf course.⁷ Subsurface contamination that still exists on the Subject Property will likely be encountered by Yashasim as it proceeds with construction of the Project, therefore presenting a significant redevelopment complication.

Due to the historical use of the Subject Property, actual contamination exists that Yashasim must now carefully manage during redevelopment at great legal and financial risk. More specifically, actual contamination at the Subject Property has complicated redevelopment efforts for Yashasim by imposing design⁸ and construction changes on the Project that would not be required but for the presence of contamination, increasing Yashasim’s exposure to environmental and regulatory liability with respect to the Project, and making it materially more expensive and time consuming to move forward with the Project. Accordingly, this designation, if granted, will allow Yashasim to access limited but important state-based economic incentives, at no cost to the City, to help underwrite the unanticipated and unbudgeted costs associated with managing the environmental risk as well as, generally, to put the Project on a more certain financial ground. In this sense, the designation will not only play a critical role in the successful redevelopment of the Subject Property, but also in the City’s larger revitalization and economic development efforts.

⁵ See Attachment C, Reasonable Financial Assurances Letter from Yashasim, dated May 5, 2024.

⁶ See Attachment D for an excerpt from Hydrologic Associates USA, Inc.’s Supplemental Site Assessment and Source Removal Plan Addendum, dated February 16, 2022, discussing the presence of arsenic above Residential Direct Exposure CTLs for soil and groundwater and BaP above Commercial/Industrial CTLs for soil and leachability.

⁷ Id.

⁸ As it stands, and as just one example of the additional complexity posed by actual contamination documented on the Subject Property, Yashasim is required to comply an extensive and challenging protocol for dewatering that only applies to development projects on or within one-quarter mile of a contaminated site. Enclosed as Attachment E is the Broward County dewatering protocol evidencing the many steps that will be triggered if and when dewatering is required.

Finally, due to the documented contamination on the Subject Property, the continued investigation and remediation of contamination itself adds one last major level of complexity as it will require close and constant oversight by Environmental Engineering and Permitting Division of Broward County's Resilient Environment Department ("RED"), including compliance with RED's Standard Operating Procedures for Dewatering of contaminated property. The regulatory process associated with remediation can be lengthy, complicated, uncertain, and without guaranteed end points. Accordingly, Yashasim has no assurance that as it moves forward with the Project the total cost of cleanup will not in fact ultimately exceed what is currently projected. Such uncertainty constitutes an *acute* form of redevelopment complexity that goes to the heart of the Florida Brownfields Program and underscores why incentives are so important for sites and projects exactly like this one.

Based on all the foregoing, the Subject Property clearly falls within the definition of "brownfield site" as set forth in § 376.79(4), Florida Statutes.

III. Conclusion

Yashasim has demonstrated that the Subject Property meets the definition of a "brownfield site" and that it satisfies the five statutory criteria for designation. Accordingly, designation of the Subject Property as a Green Reuse Area pursuant to § 376.80(2)(c), Florida Statutes, of Florida's Brownfield Redevelopment Act is appropriate.

Attachment A

Select Year:

The 2023 Florida Statutes (including Special Session C)

[Title XXVIII](#)

NATURAL RESOURCES; CONSERVATION,
RECLAMATION, AND USE

[Chapter 376](#)

POLLUTANT DISCHARGE PREVENTION
AND REMOVAL

[View Entire
Chapter](#)

376.80 Brownfield program administration process.—

(1) The following general procedures apply to brownfield designations:

(a) The local government with jurisdiction over a proposed brownfield area shall designate such area pursuant to this section.

(b) For a brownfield area designation proposed by:

1. The jurisdictional local government, the designation criteria under paragraph (2)(a) apply, except if the local government proposes to designate as a brownfield area a specified redevelopment area as provided in paragraph (2)(b).

2. Any person, other than a governmental entity, including, but not limited to, individuals, corporations, partnerships, limited liability companies, community-based organizations, or not-for-profit corporations, the designation criteria under paragraph (2)(c) apply.

(c) Except as otherwise provided, the following provisions apply to all proposed brownfield area designations:

1. Notification to department following adoption.—A local government with jurisdiction over the brownfield area must notify the department, and, if applicable, the local pollution control program under s. [403.182](#), of its decision to designate a brownfield area for rehabilitation for the purposes of ss. [376.77-376.86](#). The notification must include a resolution adopted by the local government body. The local government shall notify the department, and, if applicable, the local pollution control program under s. [403.182](#), of the designation within 30 days after adoption of the resolution.

2. Resolution adoption.—The brownfield area designation must be carried out by a resolution adopted by the jurisdictional local government, which includes a map adequate to clearly delineate exactly which parcels are to be included in the brownfield area or alternatively a less-detailed map accompanied by a detailed legal description of the brownfield area. For municipalities, the governing body shall adopt the resolution in accordance with the procedures outlined in s. [166.041](#), except that the procedures for the public hearings on the proposed resolution must be in the form established in s. [166.041\(3\)\(c\)2](#). For counties, the governing body shall adopt the resolution in accordance with the procedures outlined in s. [125.66](#), except that the procedures for the public hearings on the proposed resolution must be in the form established in s. [125.66\(5\)\(b\)](#).

3. Right to be removed from proposed brownfield area.—If a property owner within the area proposed for designation by the local government requests in writing to have his or her property removed from the proposed designation, the local government must grant the request.

4. Notice and public hearing requirements for designation of a proposed brownfield area outside a redevelopment area or by a nongovernmental entity. Compliance with the following provisions is required before designation of a proposed brownfield area under paragraph (2)(a) or paragraph (2)(c):

a. At least one of the required public hearings must be conducted as closely as is reasonably practicable to the area to be designated to provide an opportunity for public input on the size of the area, the objectives for rehabilitation, job opportunities and economic developments anticipated, neighborhood residents' considerations, and other relevant local concerns.

b. Notice of a public hearing must be made in a newspaper of general circulation in the area, must be made in ethnic newspapers or local community bulletins, must be posted in the affected area, and must be announced at a scheduled meeting of the local governing body before the actual public hearing.

(2)(a) *Local government-proposed brownfield area designation outside specified redevelopment areas.*—If a local government proposes to designate a brownfield area that is outside a community redevelopment area, enterprise zone, empowerment zone, closed military base, or designated brownfield pilot project area, the local government shall provide notice, adopt the resolution, and conduct public hearings pursuant to paragraph (1)(c). At a public hearing to designate the proposed brownfield area, the local government must consider:

1. Whether the brownfield area warrants economic development and has a reasonable potential for such activities;
2. Whether the proposed area to be designated represents a reasonably focused approach and is not overly large in geographic coverage;
3. Whether the area has potential to interest the private sector in participating in rehabilitation; and
4. Whether the area contains sites or parts of sites suitable for limited recreational open space, cultural, or historical preservation purposes.

(b) *Local government-proposed brownfield area designation within specified redevelopment areas.*—Paragraph (a) does not apply to a proposed brownfield area if the local government proposes to designate the brownfield area inside a community redevelopment area, enterprise zone, empowerment zone, closed military base, or designated brownfield pilot project area and the local government complies with paragraph (1)(c).

(c) *Brownfield area designation proposed by persons other than a governmental entity.*—For designation of a brownfield area that is proposed by a person other than the local government, the local government with jurisdiction over the proposed brownfield area shall provide notice and adopt a resolution to designate the brownfield area pursuant to paragraph (1)(c) if, at the public hearing to adopt the resolution, the person establishes all of the following:

1. A person who owns or controls a potential brownfield site is requesting the designation and has agreed to rehabilitate and redevelop the brownfield site.
2. The rehabilitation and redevelopment of the proposed brownfield site will result in economic productivity of the area, along with the creation of at least 5 new permanent jobs at the brownfield site that are full-time equivalent positions not associated with the implementation of the brownfield site rehabilitation agreement and that are not associated with redevelopment project demolition or construction activities pursuant to the redevelopment of the proposed brownfield site or area. However, the job creation requirement does not apply to the rehabilitation and redevelopment of a brownfield site that will provide affordable housing as defined in s. [420.0004](#) or the creation of recreational areas, conservation areas, or parks.
3. The redevelopment of the proposed brownfield site is consistent with the local comprehensive plan and is a permissible use under the applicable local land development regulations.
4. Notice of the proposed rehabilitation of the brownfield area has been provided to neighbors and nearby residents of the proposed area to be designated pursuant to paragraph (1)(c), and the person proposing the area for designation has afforded to those receiving notice the opportunity for comments and suggestions about rehabilitation. Notice pursuant to this subparagraph must be posted in the affected area.
5. The person proposing the area for designation has provided reasonable assurance that he or she has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment of the brownfield site.

(d) *Negotiation of brownfield site rehabilitation agreement.*—The designation of a brownfield area and the identification of a person responsible for brownfield site rehabilitation simply entitles the identified person to negotiate a brownfield site rehabilitation agreement with the department or approved local pollution control program.

(3) When there is a person responsible for brownfield site rehabilitation, the local government must notify the department of the identity of that person. If the agency or person who will be responsible for the coordination

changes during the approval process specified in subsections (4), (5), and (6), the department or the affected approved local pollution control program must notify the affected local government when the change occurs.

(4) Local governments or persons responsible for rehabilitation and redevelopment of brownfield areas must establish an advisory committee or use an existing advisory committee that has formally expressed its intent to address redevelopment of the specific brownfield area for the purpose of improving public participation and receiving public comments on rehabilitation and redevelopment of the brownfield area, future land use, local employment opportunities, community safety, and environmental justice. Such advisory committee should include residents within or adjacent to the brownfield area, businesses operating within the brownfield area, and others deemed appropriate. The person responsible for brownfield site rehabilitation must notify the advisory committee of the intent to rehabilitate and redevelop the site before executing the brownfield site rehabilitation agreement, and provide the committee with a copy of the draft plan for site rehabilitation which addresses elements required by subsection (5). This includes disclosing potential reuse of the property as well as site rehabilitation activities, if any, to be performed. The advisory committee shall review any proposed redevelopment agreements prepared pursuant to paragraph (5)(i) and provide comments, if appropriate, to the board of the local government with jurisdiction over the brownfield area. The advisory committee must receive a copy of the executed brownfield site rehabilitation agreement. When the person responsible for brownfield site rehabilitation submits a site assessment report or the technical document containing the proposed course of action following site assessment to the department or the local pollution control program for review, the person responsible for brownfield site rehabilitation must hold a meeting or attend a regularly scheduled meeting to inform the advisory committee of the findings and recommendations in the site assessment report or the technical document containing the proposed course of action following site assessment.

(5) The person responsible for brownfield site rehabilitation must enter into a brownfield site rehabilitation agreement with the department or an approved local pollution control program if actual contamination exists at the brownfield site. The brownfield site rehabilitation agreement must include:

(a) A brownfield site rehabilitation schedule, including milestones for completion of site rehabilitation tasks and submittal of technical reports and rehabilitation plans as agreed upon by the parties to the agreement.

(b) A commitment to conduct site rehabilitation activities under the observation of professional engineers or geologists who are registered in accordance with the requirements of chapter 471 or chapter 492, respectively. Submittals provided by the person responsible for brownfield site rehabilitation must be signed and sealed by a professional engineer registered under chapter 471, or a professional geologist registered under chapter 492, certifying that the submittal and associated work comply with the law and rules of the department and those governing the profession. In addition, upon completion of the approved remedial action, the department shall require a professional engineer registered under chapter 471 or a professional geologist registered under chapter 492 to certify that the corrective action was, to the best of his or her knowledge, completed in substantial conformance with the plans and specifications approved by the department.

(c) A commitment to conduct site rehabilitation in accordance with department quality assurance rules.

(d) A commitment to conduct site rehabilitation consistent with state, federal, and local laws and consistent with the brownfield site contamination cleanup criteria in s. 376.81, including any applicable requirements for risk-based corrective action.

(e) Timeframes for the department's review of technical reports and plans submitted in accordance with the agreement. The department shall make every effort to adhere to established agency goals for reasonable timeframes for review of such documents.

(f) A commitment to secure site access for the department or approved local pollution control program to all brownfield sites within the eligible brownfield area for activities associated with site rehabilitation.

(g) Other provisions that the person responsible for brownfield site rehabilitation and the department agree upon, that are consistent with ss. 376.77-376.86, and that will improve or enhance the brownfield site rehabilitation process.

(h) A commitment to consider appropriate pollution prevention measures and to implement those that the person responsible for brownfield site rehabilitation determines are reasonable and cost-effective, taking into

account the ultimate use or uses of the brownfield site. Such measures may include improved inventory or production controls and procedures for preventing loss, spills, and leaks of hazardous waste and materials, and include goals for the reduction of releases of toxic materials.

(i) Certification that the person responsible for brownfield site rehabilitation has consulted with the local government with jurisdiction over the brownfield area about the proposed redevelopment of the brownfield site, that the local government is in agreement with or approves the proposed redevelopment, and that the proposed redevelopment complies with applicable laws and requirements for such redevelopment. Certification shall be accomplished by referencing or providing a legally recorded or officially approved land use or site plan, a development order or approval, a building permit, or a similar official document issued by the local government that reflects the local government's approval of proposed redevelopment of the brownfield site; providing a copy of the local government resolution designating the brownfield area that contains the proposed redevelopment of the brownfield site; or providing a letter from the local government that describes the proposed redevelopment of the brownfield site and expresses the local government's agreement with or approval of the proposed redevelopment.

(6) Any contractor performing site rehabilitation program tasks must demonstrate to the department that the contractor:

- (a) Meets all certification and license requirements imposed by law; and
- (b) Will conduct sample collection and analyses pursuant to department rules.

(7) During the cleanup process, if the department or local program fails to complete review of a technical document within the timeframe specified in the brownfield site rehabilitation agreement, the person responsible for brownfield site rehabilitation may proceed to the next site rehabilitation task. However, the person responsible for brownfield site rehabilitation does so at its own risk and may be required by the department or local program to complete additional work on a previous task. Exceptions to this subsection include requests for "no further action," "monitoring only proposals," and feasibility studies, which must be approved prior to implementation.

(8) If the person responsible for brownfield site rehabilitation fails to comply with the brownfield site rehabilitation agreement, the department shall allow 90 days for the person responsible for brownfield site rehabilitation to return to compliance with the provision at issue or to negotiate a modification to the brownfield site rehabilitation agreement with the department for good cause shown. If an imminent hazard exists, the 90-day grace period shall not apply. If the project is not returned to compliance with the brownfield site rehabilitation agreement and a modification cannot be negotiated, the immunity provisions of s. 376.82 are revoked.

(9) The department is specifically authorized and encouraged to enter into delegation agreements with local pollution control programs approved under s. 403.182 to administer the brownfield program within their jurisdictions, thereby maximizing the integration of this process with the other local development processes needed to facilitate redevelopment of a brownfield area. When determining whether a delegation pursuant to this subsection of all or part of the brownfield program to a local pollution control program is appropriate, the department shall consider the following. The local pollution control program must:

- (a) Have and maintain the administrative organization, staff, and financial and other resources to effectively and efficiently implement and enforce the statutory requirements of the delegated brownfield program; and
- (b) Provide for the enforcement of the requirements of the delegated brownfield program, and for notice and a right to challenge governmental action, by appropriate administrative and judicial process, which shall be specified in the delegation.

The local pollution control program shall not be delegated authority to take action on or to make decisions regarding any brownfield site on land owned by the local government. Any delegation agreement entered into pursuant to this subsection shall contain such terms and conditions necessary to ensure the effective and efficient administration and enforcement of the statutory requirements of the brownfield program as established by the act and the relevant rules and other criteria of the department.

(10) Local governments are encouraged to use the full range of economic and tax incentives available to facilitate and promote the rehabilitation of brownfield areas, to help eliminate the public health and

environmental hazards, and to promote the creation of jobs and economic development in these previously run-down, blighted, and underutilized areas.

(11)(a) The Legislature finds and declares that:

1. Brownfield site rehabilitation and redevelopment can improve the overall health of a community and the quality of life for communities, including for individuals living in such communities.
2. The community health benefits of brownfield site rehabilitation and redevelopment should be better measured in order to achieve the legislative intent as expressed in s. 376.78.
3. There is a need in this state to define and better measure the community health benefits of brownfield site rehabilitation and redevelopment.
4. Funding sources should be established to support efforts by the state and local governments, in collaboration with local health departments, community health providers, and nonprofit organizations, to evaluate the community health benefits of brownfield site rehabilitation and redevelopment.

(b) Local governments may and are encouraged to evaluate the community health benefits and effects of brownfield site rehabilitation and redevelopment in connection with brownfield areas located within their jurisdictions. Factors that may be evaluated and monitored before and after brownfield site rehabilitation and redevelopment include, but are not limited to:

1. Health status, disease distribution, and quality of life measures regarding populations living in or around brownfield sites that have been rehabilitated and redeveloped.
2. Access to primary and other health care or health services for persons living in or around brownfield sites that have been rehabilitated and redeveloped.
3. Any new or increased access to open, green, park, or other recreational spaces that provide recreational opportunities for individuals living in or around brownfield sites that have been rehabilitated and redeveloped.
4. Other factors described in rules adopted by the Department of Environmental Protection or the Department of Health, as applicable.

(c) The Department of Health may and is encouraged to assist local governments, in collaboration with local health departments, community health providers, and nonprofit organizations, in evaluating the community health benefits of brownfield site rehabilitation and redevelopment.

(12) A local government that designates a brownfield area pursuant to this section is not required to use the term “brownfield area” within the name of the brownfield area designated by the local government.

History.—s. 4, ch. 97-277; s. 3, ch. 98-75; s. 11, ch. 2000-317; s. 2, ch. 2004-40; s. 44, ch. 2005-2; s. 7, ch. 2006-291; s. 5, ch. 2008-239; s. 2, ch. 2014-114; s. 11, ch. 2023-309.

Attachment B

Prepared by and return to:

Paul Feldman, P.A.
407 Lincoln Road, Suite 701
Miami Beach, FL 33139
305-534-4721
File Number: Falic
Will Call No.:

[Space Above This Line For Recording Data]

Warranty Deed

This Warranty Deed made this 8th day of July, 2007 between **Watkins Properties, LLC, a Florida limited liability company by instrument recorded September 7, 2006 in O.R. Book 42715, Page 89, Public Records of Broward County, Florida.** whose post office address is **232 Treasure Harbor Drive, Islamorada, FL 33036,** grantor, and **Yashasim, LLC, a Florida Limited Liability Company** whose post office address is **6100 Hollywood Blvd., 7th Floor, Hollywood, FL 33024,** grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Broward County, Florida** to-wit:

Lot or Tract 14, of LYNDON ESTATES, according to the unrecorded map of LYNDON ESTATES, a Subdivision of the Southwest ¼ of Section 13, Township 51 South, Range 41 East, according to the map prepared by N.E. Berry, April, 1944. Said Lot or Tract comprises approximately the North ½ of the Southwest ¼ of the Northeast ¼ of the Southwest ¼ of said Section 13, and is more particularly described as follows:~Commencing at a point on the North line of the Southwest ¼ of said Section 13, which is 670 feet West of the Northeast corner of the Southwest ¼ of said Section 13, thence running South 2° 11' 16" East, a distance of 710 feet to a point, which is the point of beginning of the description of the land hereby conveyed; thence South 88° 46' 17" West, a distance of 662.97 feet to the West line of the Northeast ¼ of the Southwest ¼ of said Section 13; thence running South 2° 05' 43" East along the West line of the Northeast ¼ of the Southwest ¼ of said Section 13, a distance of 322.14 feet; thence North 89° 10' 41" East, a distance of 663.62 feet; thence North 2° 11' 16" West, a distance of 325 feet, more or less, to the Point of Beginning. Said lands situate, lying and being in Broward County, Florida.~

Parcel Identification Number: 5141 1337 0140

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2006.**

DoubleTime®

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Paul Feldman
Witness Name: PAUL FELDMAN
Robert A. S. Kelly
Witness Name: ROBERT A. S. KELLY

Watkins Properties, LLC, a Florida limited liability company

By: *Fred E. Watkins*
Fred E Watkins, Manager

(Corporate Seal)

State of Florida
County of Miami-Dade

The foregoing instrument was acknowledged before me this 8th day of July, 2007 by Fred E Watkins, as manager, of Watkins Properties, LLC, a Florida limited liability company, on behalf of the corporation. He/she is personally known to me or has produced a driver's license as identification.

[Notary Seal]

Paul Feldman
Notary Public

Printed Name: _____

My Commission Expires: _____



Paul Feldman
Commission #DD271147
Expires: Dec 01, 2007
Bonded Thru
Atlantic Bonding Co., Inc

This Instrument Prepared By:
Donald J. Doody, Esquire
GOREN, CHEROF, DOODY & EZROL, P.A.
3099 East Commercial Boulevard, Suite 200
Fort Lauderdale, Florida 33308

PIN: 11113-18-02800
11113-18-02700

WARRANTY DEED

THIS INDENTURE, made this 22 day of September, 2008 by and between **John G. Olson, a single man**, hereinafter collectively referred to as "Grantor" and **Yashasim, LLC, a Florida Limited Liability Company** whose post office address 6100 Hollywood Blvd., 7th Floor, Hollywood, FL 33024, hereinafter referred to as "Grantee."

WITNESSETH:

That said Grantor, for and in consideration of the sum of TEN (\$10.00) DOLLARS, and other good and valuable considerations to Grantor in hand paid by Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to Grantee and Grantee's successors and assigns forever, the following described land, situate, lying and being in BROWARD County, Florida, to wit:

Lots 28 and 29 of LYNDON PARK, a subdivision according to the Plat thereof, as recorded in Plat Book 29, Page 25 of the Public Records of Broward County, Florida.

Subject to restrictions, reservations and easements of record, if any, and taxes of the year 2008.

And the Grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

The subject property is not the homestead of the Grantor.

IN WITNESS WHEREOF, Grantor has hereunto set Grantor's hands the day and year first above written.

Signed, sealed and delivered
in our presence:

Donna Olanski

DONNA OLANSKI
(Print or Type Name)

JAMES NARDI
(Print or Type Name)

John G. Olson

John G. Olson
Address: 1920 ARCADIA DRIVE
MIRAMAR, FLORIDA 33023

**STATE OF FLORIDA
COUNTY OF BROWARD**

The foregoing instrument was acknowledged before me on this 22 day of September, 2008 by **John G. Olson, a single man**, who is personally known to me or has produced a Florida driver's license as identification.

NOTARY PUBLIC-STATE OF FLORIDA
James Nardi
Commission #DD755587
Expires: FEB. 05, 2012
BONDED THRU ATLANTIC BONDING CO., INC.

James Nardi
NOTARY PUBLIC

Attachment C

Yashasim, LLC

May 5, 2024

Mr. George R. Keller, Jr., City Manager
City of Hollywood
2600 Hollywood Boulevard
Hollywood, FL 33020

Re: Further Demonstration of Reasonable Financial Assurances in Connection with Pending Application for Brownfield Area Designation for Yashasim, LLC

Dear Mr. Keller:

This letter is submitted in connection with the pending application for brownfield area designation for Yashasim, LLC (the "Company") that is being filed with The City of Hollywood (the "City") by The Goldstein Environmental Law Firm, P.A. The purpose of this letter is to provide reasonable assurance that the Company has sufficient financial resources to implement the rehabilitation and redevelopment plan for the real property identified by Parcel ID Number 514113270140 (the "Subject Property"). Accordingly, please note the following:

- The Company owns the Subject Property.
- The Company is adequately capitalized.
- The Company has sufficient liquidity on hand to fund the expected \$4.1 million budget for the Subject Property's rehabilitation and redevelopment. However, the Company may seek additional funding from preferred financial institutions as required.
- The Company has a history of leveraging assets with other capital sources, an impressive track record of success, highly experienced and sophisticated development staff, and cultivated relationships with financial institutions necessary to raise additional capital as needed.

In addition, in my capacity as Manager for the Company and based upon my personal knowledge, I certify that the Company has sufficient financial resources to implement and complete the rehabilitation agreement and redevelopment plan at the Subject Property as referenced above.

Thank you in advance for your continuing assistance with this matter and for the City's support for this important project.

Very truly yours,


Simon Fatic
President

6100 Hollywood Boulevard, 7th Floor
Hollywood, Florida 33024
Tel: (954) 986-770

Attachment D



HYDROLOGIC ASSOCIATES U.S.A., INC.

ENVIRONMENTAL CONSULTANTS • HYDROGEOLOGIC TESTING
WELL DRILLING SERVICES • PETROLEUM CONTRACTOR

SUPPLEMENTAL SITE ASSESSMENT AND SOURCE REMOVAL PLAN ADDENDUM

For

Former Pines Par 3 Golf Course

315 South 62nd Avenue

Hollywood, Florida 33024

Incident Date: February 25, 2010

EAR License #1062

(Folio Nos. 5141 13 27 0140, 5141 13 18 0280, & 5141 13 18 0270)

Submitted to:

Broward County Environmental Protection and Growth Management Department

Pollution Prevention, Remediation and Air Quality Division

One North University Drive, Suite 203

Plantation, Florida 33136

Prepared by:

Hydrologic Associates USA, Inc

10406 Southwest 186th Terrace

Miami, Florida

HAI Project Number HA10-2779

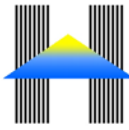
February 16, 2022

NASSAU
P.O. Box CB-12762, Suite # 186
Cable Beach, Nassau, Bahamas

MAIN OFFICE MIAMI
10406 SW 186th Terrace
Miami, Florida 33157
Phone: (305) 252-7118
Fax: (305) 254-0874

ORLANDO
109 Bayberry Road
Altamonte Springs, Florida 32714

WWW.HAIMIAMI.COM



HYDROLOGIC ASSOCIATES U.S.A., INC.

ENVIRONMENTAL CONSULTANTS • HYDROGEOLOGIC TESTING
WELL DRILLING SERVICES • PETROLEUM CONTRACTOR

PROFESSIONAL CERTIFICATION

February 16, 2022

Mr. Norman Arrazola, P.E.

Engineer III

Broward County Environmental Protection and Growth Management Department

Environmental Engineering and Permitting Division

One North University Drive, Mail Box 201

Plantation, Florida 33324

Prepared by:

Hydrologic Associates USA, Inc.

10406 Southwest 186th Terrace

Miami, FL 33157

**RE: Supplemental Site Assessment and
Source Removal Plan Addendum for the**

Former Pines Par 3 Golf Course

315 South 62nd Avenue

Hollywood, Florida 33024

Incident Date: February 25, 2010

EAR License #1062

(Folio Nos. 5141 13 27 0140, 5141 13 18 0280, & 5141 13 18 0270)

HAI Project Number: HA10-2779

“This document was prepared or reviewed by the following Hydrologic Associates USA, Inc. (HAI) representative James T. Miller, P.E. # 53873. I certify that I hold an active license in the State of Florida and am competent through education and experience to provide the engineering service contained in this report. Moreover, I certify that Hydrologic Associates USA Inc. holds an active State of Florida Board of certificate of authorization # 00006851 to provide the engineering service.”



This item has been digitally signed and sealed by James T. Miller, P.E. on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by James T

Miller:A01410D00000177EF2FEA3000015AD6

DN: c=US, o=Hydrologic Associates USA,

cn=James T

Miller:A01410D00000177EF2FEA3000015AD6

Date: 2022.02.22 08:49:07 -05'00'

James T. Miller, P.E.

Florida PE License No. 53873

Date: _____

T:\HA10-2779_SSA/SRP.Feb.22

MAIN OFFICE MIAMI

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NASSAU

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Cable Beach, Nassau, Bahamas

ORLANDO

109 Bayberry Road

Altamonte Springs, Florida 32714



HYDROLOGIC ASSOCIATES U.S.A., INC.

ENVIRONMENTAL CONSULTANTS • HYDROGEOLOGIC TESTING
WELL DRILLING SERVICES • PETROLEUM CONTRACTOR

February 16, 2022

Mr. Norman Arrazola, P.E.
Engineer III
Broward County Environmental Protection and Growth Management Department
Environmental Engineering and Permitting Division
One North University Drive, Mail Box 201
Plantation, Florida 33324

**RE: Supplemental Site Assessment and
Source Removal Plan Addendum for the
Former Pines Par 3 Golf Course
315 South 62nd Avenue
Hollywood, Florida 33024
Incident Date: February 25, 2010
EAR License #1062
(Folio Nos. 5141 13 27 0140, 5141 13 18 0280, & 5141 13 18 0270)
HAI Project Number: HA10-2779**

Dear Mr. Arrazola,

Hydrologic Associates USA Inc. (HAI) is pleased to submit this Supplemental Site Assessment and Source Removal Plan Addendum (SSA/SRPA) on the above-referenced property (herein referred to as the “subject site”) to the Broward County Environmental Protection and Growth Management Department (EPGMD) for its review.

The SSA/SRPA has been prepared as per EPGMD Contamination Assessment Plan approval letter (with modifications), dated August 13, 2021 (Attachment I). The purpose of this submittal is so that HAI and the EPGMD can come to an agreement on the best approach to address the Total Arsenic and Benzo(a)Pyrenes/Equivalents (BaPE) impacted soil in order to achieve closure as per Chapter 62-780.680(1), FAC Risk Management Option Level I (RMO-I) No Further Action without Controls (NFA).

Project Description

The subject site is located along the east side of South 62nd Avenue in Section 13 Township 51 South, Range 41 East in Hollywood, Florida. Figure 1 is a portion of the USGS Topographical Map that shows the subject site location.

The subject site is approximately 4.9 acres in size and is currently undeveloped land consisting of a paved parking lot and an abandoned golf course. Figure 2 shows former and current features of the subject site.

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109 Bayberry Road
Altamonte Springs, Florida 32714

WWW.HAIMIAMI.COM

The subject site was previously developed with a former restaurant building and former single-family residential building which were razed in circa 2014. Historic use of the subject site has been as a golf course since circa 1955.

Regulatory Information

Soil impacts of Arsenic concentrations above the FDEP's SCTL for Commercial/Industrial are limited to soil borings SB-1 (0-1') located in the southeastern portion of the subject site, SB-3 (0-1') located in the south-central portion of the subject site, and SB-4 (0-2') located in the north-central portion of the subject site.

Soil impacts of Benzo(a)Pyrene equivalents (BaP) concentrations above the FDEP SCTL for Commercial/Industrial are limited to soil borings SB-16 (0-2'), SB-27N+5 (2'-4'), SB-16 (2'-4'), SB28N+10 (0-2'), SB28N+10 (2'-4'), SB-32 (0-2'), SB-33 (0-2'), SB-35 (0-2'), SB-36 (0-2'), and SB-37 (0-2') located along the eastern and western sides of the subject site building.

Groundwater impacts are limited to Arsenic exceedances at MW-7 located in the south-central portion of the subject site, MW-9 located near the central portion of the subject site, and MW-8, located in the southeastern portion of the subject site.

HAI concluded that as these elevated Arsenic concentrations are proximal to these wells, only a small portion of the subject site is affected. Given that these arsenic impacts emanate from the site's former usage as a golf course, the arsenic impacts would be expected to lessen over time as this usage has ceased. As such, HAI recommended soil remediation in the form of excavation and legal disposal of arsenic impacted soil in the vicinity of soil borings SB-1, SB-3, and SB-4. Additionally, HAI recommended soil remediation in the form of excavation and legal disposal of BaP impacted soil in the vicinity of borings SB-16, SB28N+10, SB-32, SB-33, SB-35, SB-36, and SB-37. Furthermore, HAI recommended further delineation of the BaP impacted soil in the vicinity of SB-16 and further delineation of the arsenic impacted soil in the vicinity of SB-1, SB-3, and SB-4 during the soil excavation activities.

Finally, in order to achieve No Further Action with Conditions, HAI recommended implementing a Quarterly Groundwater Monitoring Only Plan for a one year period. As part of the proposed Quarterly Groundwater Monitoring Only Plan, HAI included groundwater monitoring wells/sampling/testing in the vicinity of the soil sample locations which exhibited BaP concentrations above the Leachability based on Groundwater criteria to determine if the BaP contamination has leached into the surrounding groundwater. Additionally, the proposed Quarterly Groundwater Monitoring Only Plan included sampling and testing groundwater monitoring wells MW-7, MW-8, and MW-9 for arsenic to determine if arsenic impacted groundwater will remain within the subject site boundaries.

Therefore, HAI submitted a Soil Management Plan and Monitoring Only Plan, dated November 11, 2012, and a Revised Soil Management Plan and Monitoring Only Plan,

dated February 1, 2012. EPGMD approved the Revised Soil Management Plan and Monitoring Only Plan on February 20, 2012. The SMP and MOP proposed excavating the soil impacted with Arsenic and Benzo (a) Pyrene Equivalents above the SCTL for Commercial/Industrial.

During September and October 2012, source removal activities were conducted on the Arsenic impacted soil above the SCTL for Commercial/Industrial at the (0 – 1') interval in the southeastern and south-central portions of the subject site (as represented by SB-1 and SB-3, respectively), the Arsenic impacted soil above the SCTL for Commercial/Industrial at the (0 – 2') and (0 - 6") intervals in the north-central portions of the subject site (as represented by SB-4 and SB-11, respectively), and the B(a)P impacted soil above the SCTL for Commercial/Industrial at the (0 – 2') interval on the eastern side of the subject site building (as represented by SB-35, SB-36, and SB-37) and at the (0 - 2') & (2' – 4') intervals on the western side of subject site building (as represented by SB-16, SB28N+10, SB-32, and SB-33). The soil impacted with Arsenic and B(a)P above the SCTLs for Residential remained in place and the untested soil beneath the pavement suspected to be impacted with Total Arsenic, Benzo(a)Pyrene and Benzo(a)Pyrene Equivalents above the Direct Exposure SCTLs for Commercial/Industrial were to be addressed through the proposed engineering and institutional controls including the MOP.

Following the source removal activities, quarterly monitoring activities were conducted at the subject site to ensure that the BaP contamination above the SCTL for Residential in the soil has not leached into the surrounding groundwater and that the Total Arsenic impacted groundwater is stabilized and has not migrated off-site.

The groundwater laboratory analytical results for the fourth quarter indicated that concentrations of Total Arsenic were above the FDEP GCTL but below the FDEP NADC in the central and southeastern portions of the subject site and that the concentrations of PAH constituents were at or below the FDEP GCTLs in the central portion of the subject site. Additionally, the results of the NAM activities for the last three quarters had shown that the BaP contamination in the soil had not leached into the surrounding groundwater and that the Total Arsenic impacted groundwater was stabilized and had not migrated off-site.

Based upon this information, HAI recommended that NAM activities be discontinued at the subject site and that NFAC status under Chapter 62-780, FAC be granted to the subject site for the September 8, 2011 discharge.

EPGMD approved the NFAC on February 17, 2015. The NFAC approval was predicated on several institutional and engineering controls including the restaurant building and single-family residential building serving as engineering controls for the underlying soil suspected to be impacted with benzo(a)pyrene equivalents that exceeds Soil Cleanup Target Levels for the Direct Exposure – Industrial/Commercial scenario (DEC SCTLs). Additionally, the EPGMD required the submittal of a Draft Declaration of Restrictive

Covenant. The Draft Declaration of Restrictive Covenant was been submitted to the EPGMD under separate cover.

The former restaurant building and former single-family residential building were razed. The EPGMD was notified of the new conditions of the subject site in a January 23, 2015 correspondence. In response, the EPGMD required the soil underneath the former buildings be assessed and a Supplemental Site Assessment Report/NFAC (SSAR/NFAC) Proposal Amendment be submitted documenting the soil assessment activities and updating the NFAC Proposal. HAI submitted the SSAR/NFAC Proposal Amendment to the EPGMD on March 5, 2015, then submitted corrected documents for the SSAR/NFAC Proposal Amendment to the EPGMD in a Response Letter, dated June 5, 2015.

The results, as presented in the SSAR, indicated that Benzo(a)Pyrene and Benzo(a)Pyrene Equivalents impacted soil above the Direct Exposure SCTL for Residential exists in the western-central portion of the former restaurant building at the (0 – 2') interval and has been delineated to the north, east, and west by soil borings collected during this assessment and has been delineated to the west by previous soil borings and excavations conducted at the subject site. The soil at the (2' – 4') interval in this area has not been impacted by PAH constituents (including Benzo(a)Pyrene and Benzo(a)Pyrene Equivalents) at concentrations above the Direct Exposure SCTL for Residential. These results also showed that Benzo(a)Pyrene and Benzo(a)Pyrene Equivalents impacted soil above the Direct Exposure SCTL for Commercial/Industrial was not encountered in the soil beneath the former restaurant building and former single-family residential building.

The EPGMD requested the submittal of the NFAC Proposal in their Engineering Control and ASCTLs for Declaration of Restrictive Covenant for No Further Action with Controls review letter, dated March 28, 2019.

HAI submitted a No Further Action with Conditions Proposal (NFACP) Revision No. 2, dated April 22, 2019. In the NFACP Revision No. 2, HAI stated that the Alternative Soil Cleanup Target Level (ASCTL) of 1.0 mg/kg for Residential for BaP Equivalents will be utilized at the subject site.

The EPGMD approved on June 7, 2019. However, in its May 20, 2021 letter, the EPGMD stated that the FDEP no longer accepts the ACTL in lieu of the SCTL. So, any exceedances to the SCTL of 0.1 mg/kg for benzo(a)pyrenes/equivalents in soil need to be addressed. Therefore, the EPGMD requested that a Plan be submitted on how to address benzo(a)pyrenes/equivalents (BaPE) in soil at the subject site

As previously stated, after the source removal activities conducted in 2012, the soil impacted with Arsenic and B(a)P above the SCTLs for Residential remained in place and the untested soil beneath the pavement is suspected to be impacted with Total Arsenic, Benzo(a)Pyrene and Benzo(a)Pyrene Equivalents above the Direct Exposure SCTLs for Commercial/Industrial. Figures 2 thru 4C show the previous soil borings and the Arsenic and B(a)P concentrations.

Furthermore, the results of the NAM indicated that concentrations of Total Arsenic in the groundwater are above the FDEP GCTL but below the FDEP NADC in the central and southeastern portions of the subject site and that the concentrations of PAH constituents in the groundwater are at or below the FDEP GCTLs in the central portion of the subject site. Figure 6 shows the monitor well locations.

The owner/responsible party has decided to excavate and properly dispose of the Total Arsenic and B(a)P impacted soil above the SCTLs for Residential in attempt to achieve closure as per Chapter 62-780.680(1), FAC Risk Management Option Level I (RMO-I) No Further Action without Controls (NFA). However, prior to the excavation and proper disposal activities, HAI recommended further soil assessment to better delineate the Arsenic and B(a)P impacted soil.

HAI prepared a Contamination Assessment Plan, dated July 19, 2021, and submitted the report to the EPGMD for its review. The EPGMD approved the CAP with modifications in its review letter, dated August 13, 2021. A copy of the review letter is provided in Appendix I.

Soil Assessment for Documented Total Arsenic Impacted Soil

In order to delineate the documented Total Arsenic impacted soil above the SCTL for Residential, HAI observed the installation of soil borings down to the water table (approximately six feet bls) by a licensed well driller using a Geoprobe unit (i.e. direct push methodology) in the following areas.

Field investigation activities were conducted in accordance with the FDEP Standard Operating Procedures (SOPs) as per Chapter 62-160, FAC. Sampling was conducted by HAI representatives. The soil samples from this assessment were introduced into pre-cleaned sample containers, placed on ice, and transported to Advanced Environmental Laboratories Inc., a NELAC-certified analytical laboratory, for laboratory analysis. Chain of custody documentation accompanied the samples to the laboratory.

SB-2 (0 – 6’')

The vertical extent has been previously delineated in the SB-2 area. Therefore, four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-2 to delineate the horizontal extent of Total Arsenic impacted soil in the SB-2 area. The soil samples will be collected at the (0 – 6’'), (6’'' – 2’), (2’ – 4’) and (4’ – 6’) intervals. Initially, the soil samples collected at the (0 – 6’') interval were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 2.8 I mg/kg detected in SB-2+10N (0 – 6’'), 3.6 I mg/kg detected in SB-2+10W (0 – 6’'), 3.5 I mg/kg detected in SB-2+10W (6’'' – 2’), 4.8 mg/kg detected in SB-2+10S (2’ - 4’); exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential

However, the soil analytical results indicate that the Total Arsenic concentrations detected in SB-2 (4' - 6'), SB-2+10N (6'' - 2'), SB-2+10E (0 - 6''), SB-2+10E (2' - 4') SB-2+10E (4' - 6'), SB-2+10S (0 - 6''), SB-2+10S (6'' - 2'), SB-2+10S (4' - 6') SB-2+10W (2' - 4'), and SB-2+10W (4' - 6') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-5 (0 - 1')

This is not an acceptable interval to evaluate the soil quality for Total Arsenic. However, the (2' - 4') interval was collected and analyzed for Total Arsenic which did not exceed the SCTL for Residential. Therefore, SB-5 was reinstalled, and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-5 to delineate the vertical and horizontal extent of Total Arsenic impacted soil in the SB-5 area. The soil samples were collected at the (0 - 6'') and (6'' - 2') intervals from SB-5R and were collected at the (0 - 6''), (6'' - 2'), (2' - 4') and (4' - 6') intervals from the step-out soil borings. Initially, the soil samples collected at the (0 - 6'') and (6'' - 2') intervals from SB-5 were analyzed for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 1.2 I mg/kg detected SB-5 (0 - 6'') and 1.8 mg/kg detected in SB-5 (6'' - 2') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-9 (0 - 6'')

The vertical extent has been previously delineated in the SB-9 area. Therefore, four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-9 to delineate the horizontal extent of Total Arsenic impacted soil in the SB-9 area. The soil samples were collected at the (0 - 6''), (6'' - 2'), (2' - 4') and (4' - 6') intervals. Initially, the soil samples collected at the (0 - 6'') interval were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 3 I mg/kg detected in SB-9+10E (0 - 6''), 6.5 mg/kg detected in SB-9+10E (6'' - 2'), and 6.1 mg/kg detected in SB-9+10S (6'' - 2') and exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

However, the soil analytical results indicate that the Total Arsenic concentrations detected in SB-9 (2' - 4'), SB-9 (4' - 6'), SB-9N (0 - 6''), SB-9W (0 - 6''), SB-9W (6'' - 2'), SB-9W (2' - 4'), SB-9+10E (2' - 4'), SB-9+10E (4' - 6'), and SB-9+10S (2' - 4') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-11 (6" – 2')

The (0 – 6") interval was previously excavated to confirmation soil samples and does not require further assessment. However, the horizontal and vertical extent of the Total Arsenic impacted soil at the (6" – 2') interval has not been delineated in the SB-11 area. Therefore, SB-11 were reinstalled and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-11 to delineate the vertical and horizontal extent of Total Arsenic impacted soil in the SB-11 area. The soil samples were collected at the (2' - 4') and (4' - 6') intervals from SB-11R, and were collected at the (6" – 2'), (2' -4'), and (4' -6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') from SB-11R and the soil samples collected at the (6" – 2') interval from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentration of 3.1 mg/kg detected in SB-11N (6" – 2') exceeds the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Additionally, the soil analytical results indicate that the Total Arsenic concentrations detected in SB-11 (2' – 4'), SB-11 (4' – 6'), SB-11N (2' - 4') SB-11+10E (6" – 2'), SB-11+10S (6" – 2'), SB-11 +10W (6" – 2') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-13 (0 – 6") and (6" – 2')

Neither the vertical nor horizontal extent has been delineated in the SB-13 area. Therefore, SB-13 was reinstalled and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-13 to delineate the vertical and horizontal extent of Total Arsenic impacted soil in the SB-13 area. The soil samples were collected at the (2' – 4') and (4' – 6') intervals from SB-13 and soil samples were collected at the (0 – 6"), (6" – 2'), (2' – 4') and (4' – 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') and (4' – 6") intervals from SB-13 and the soil samples collected at the (0 – 6") and (6" – 2') intervals from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 4.5 mg/kg detected in SB-13+10S (0 – 6") and 5.3 mg/kg detected in SB-13E (0 – 6") exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential. However, the Total Arsenic concentrations of 0.77 U mg/kg detected in SB-13+10S (6" – 2') and 0.77 U mg/kg detected in SB-13E (6" – 2') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Additionally, the Total Arsenic concentrations of 0.92 I mg/kg detected in SB-13 (2' - 4') and 0.85 U mg/kg detected in SB-13 (4' - 6') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-15 (0 - 6'')

The vertical extent has been previously delineated in the SB-15 area. Therefore, four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-15 to delineate the horizontal extent of Total Arsenic impacted soil in the SB-15 area. The soil samples were collected at the (0 - 6''), (6'' - 2'), (2' - 4') and (4' - 6') intervals. Initially, the soil samples collected at the (0 - 6'') interval were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 2.7 I mg/kg detected in SB-15 (4' - 6'), 4.2 mg/kg detected in SB-15+10N (0 - 6''), and 3.1 mg/kg detected in SB-15+10E (0 - 6'') exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Additionally, the Total Arsenic concentrations detected in SB-15+10N (6'' - 2'), SB-15+10N (4' - 6'), SB-15+10E (6'' - 2'), SB-15+10E (4' - 6'), SB-15+10S (4' - 6'), and SB-15+10W (4' - 6') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-17 (0 - 6'') and (6'' - 2')

Neither the vertical nor horizontal extent has been delineated in the SB-17 area. Therefore, SB-17 was reinstalled and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-17 to delineate the vertical and horizontal extent of Total Arsenic impacted soil in the SB-17 area. The soil samples were collected at the (2' - 4'), (2' - 4') and (4' - 6') intervals from SB-17R and soil samples were collected at the (0 - 6''), (6'' - 2'), (2' - 4') and (4' - 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' - 4') interval from SB-17R and the soil samples collected at the (0 - 6'') and (6'' - 2') intervals from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 4.7 mg/kg detected in SB-17 (4' - 6'), 2.4 I mg/kg detected in SB-17+10N (0 - 6''), 6.3 mg/kg detected in SB-17+10E (0 - 6''), 2.7 I mg/kg detected in SB-17+10E (4' - 6'), 5.1 mg/kg detected in SB-17+10S (0 - 6''), 2.8 I mg/kg detected in SB-17+10W (0 - 6'') and 2.3 I mg/kg detected in SB-17+10W (6'' - 2') exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Additionally, the soil analytical results indicate that the Total Arsenic concentrations detected in SB-17+10N (4' - 6'), SB-17+10S (4' - 6'), SB-17+10W (2' - 4'), SB-

17+10W (4' – 6') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-18 (0 – 6")

The vertical extent has been previously delineated in the SB-18 area. Therefore, four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-18 to delineate the horizontal extent of Total Arsenic impacted soil in the SB-18 area. The soil samples were collected at the (0 – 6"), (6" – 2'), (2' – 4') and (4' – 6') intervals. Initially, the soil samples collected at the (0 – 6") interval were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 2.8 I mg/kg detected in SB-18E (0 – 6"), 5.7 mg/kg detected in SB-18+10S (0 – 6"), 6.6 mg/kg detected in SB-18+10S (6" – 2'), and 3.0 I mg/kg detected in SB-18+10W (2' – 4') exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Additionally, the soil analytical results indicate that the Total Arsenic concentrations of 42 mg/kg detected in SB-18+10N (0 – 6"), 30 mg/kg detected in SB-18+10N (6" – 2'), 55 mg/kg detected in SB-18+10W (0 – 6"), and 33 mg/kg detected in SB-18+10W (6" – 2') exceed the FDEP Direct Exposure SCTL of 12 mg/kg for Commercial/Industrial.

Furthermore, the soil analytical results indicate that the Total Arsenic concentrations detected in SB-18 (2' – 4'), SB-18 (4' – 6'), SB-18E (6" – 2'), SB-18E (2' – 4'), SB-18E (4' – 6'), SB-18+10N (2' – 4'), SB-18+10N (4' - 6'), SB-18+10S (2' – 4'), SB-18+10S (4' – 6'), and SB-18+10W (4' – 6') do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SB-20 (0 – 6") and (6" – 2')

Neither the vertical nor horizontal extent has been delineated in the SB-20 area. Therefore, SB-20 were reinstalled, and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-20 to delineate the vertical and horizontal extent of Total Arsenic impacted soil in the SB-20 area. The soil samples were collected at the (2' – 4') and (4' – 6') intervals from SB-20 and soil samples were collected at the (0 – 6"), (6" – 2'), (2' – 4') and (4' – 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') interval from SB-20 and the soil samples collected at the (0 – 6") and (6" – 2') intervals from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations detected in the samples tested do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SX3-N (1')

This is the northern side wall sample from the one-foot excavation in the SB-3 area. The vertical extent of the excavation has been delineated in the SB-3. Therefore, three step-out soil borings were installed approximately 10 feet to the north, east, and west of SX3-N to delineate the horizontal extent of Total Arsenic impacted soil in the SX3-N area. The soil samples were collected at the (0 – 6”), (6” – 2’), (2’ – 4’) and (4’ – 6’) intervals. Initially, the soil samples collected at the (0 – 6”) and (6” – 2’) intervals from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 3.2 I mg/kg detected in SX3-N+10E (0 – 6”) and 3.2 mg/kg detected in SX3-N+10W (0 – 6”) exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

However, the soil analytical results indicate that the Total Arsenic concentration detected in SX3-N+10E (0 – 6”) does not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

SX4-SP CS-N (6’)

This is the northern end of the former stockpile of soil area generated from excavation No. SX4 in the SB-1 area. Neither the vertical extent nor the horizontal extent has been delineated in the SX4 SP CS-N area. Therefore, SX4-SP CS-N were reinstalled and three step-out soil borings were installed approximately 10 feet to the north, east, and west of SX4-SP CS-N to delineate the horizontal extent of Total Arsenic impacted soil in the SX4-SP CS-N area. The soil samples were collected at the (6” – 2’), (2’ – 4’) and (4’ – 6’) intervals from SX4-SP CS-NR and were collected at the (0 – 6”), (6” – 2’), (2’ – 4’) and (4’ – 6’) intervals from the step-out soil borings. Initially, the soil sample collected at the (6” – 2’) interval from SX4-SP CS-NR and the (0 – 6”) interval from the step-out soil borings were analyze for Total Arsenic via EPA Method 6010. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 2.5 I mg/kg detected in SX4-SP-CS-N (6” – 2’) and 2.8 I detected in SX4-SP-CS-N 10E (0 - 6”) exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

However, the soil analytical results indicate that the Total Arsenic concentrations detected in in SX4-SP CS-N (2’ – 4’), SX4-SP CS-N 10E (6” – 2’), SX4-SP CS-N 10N (0’ – 6”), and SX4-SP CS-N 10W (0 – 6”) do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

CX7

This is the four-foot Excavation CX7 located east of the former structures located near the center of the subject site. The Total Arsenic was not fully evaluated in this area. Therefore, CX7-1, CX7-2 and CX7-5 were reinstalled, and CX-8 and CX-9 were

installed immediately beyond the CX7 excavation walls. The soil samples were collected at the (0 – 6”), (6” – 2’), (2’ – 4’) and (4’ – 6’) intervals from the soil borings. The soil samples were analyzed for Total Arsenic via EPA Method 6010. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the Total Arsenic concentrations of 2.9 I mg/kg detected in CX7-1 (4’ – 6’), 2.4 mg/kg detected in CX7-8 (0 – 6”), and 3.5 I mg/kg detected in CX7-8 (2’ – 4’) exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

The Total Arsenic concentrations tested in the CX7-1 (0 - 6”), CX7-1 (6” – 2’) CX7-1 (2’ - 4’), CX7-2 (0 - 6”), CX7-2 (6” - 2’), CX7-2 (2’ - 4’), CX7-2 (4’ - 6’), CX7-5 (0 - 6”), CX7-5 (6” - 2’), CX7-5 (2’ - 4’), CX7-5 (4’ - 6’), CX7-8 (6” - 2’), CX7-8 (4’ - 6’), CX7-9 (0 - 6”), CX7-9 (6” - 2’), CX7-9 (2’ - 4’), CX7-9 (4’ - 6’), and CX7-5+10E (4’ – 6’) do not exceed the FDEP Direct Exposure SCTL of 2.1 mg/kg for Residential.

Soil Assessment for Documented BaPE Impacted Soil

In order to delineate the documented BaPE impacted soil above the SCTL for Residential HAI observed the installation of soil borings down to the water table (approximately six feet bls) by a licensed well driller using a Geoprobe unit (i.e., direct push methodology) in the following area.

Field investigation activities were conducted in accordance with the FDEP Standard Operating Procedures (SOPs) as per Chapter 62-160, FAC. Sampling was conducted by HAI representatives. The soil samples from this assessment were introduced into pre-cleaned sample containers, placed on ice, and transported to Advanced Environmental Laboratories Inc., a NELAC-certified analytical laboratory, for laboratory analysis. Chain of custody documentation accompanied the samples to the laboratory.

SB-9

This soil boring is also part of the grid system and was not evaluated for PAHs during the previous assessments. Therefore, SB-9 was reinstalled, and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-9. The soil samples were collected at the (0 – 2’), (2’ – 4’) and (4’ – 6’) intervals. Initially, the soil samples collected at the (0 – 2’), (2’ – 4’) and (4’ – 6’) intervals from SB-9 were analyze for PAH via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in this location. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the BaPE concentration of 2.1 mg/kg detected in SB-9 (0 - 2’) exceeds the FDEP Direct Exposure SCTL of 0.7 mg/kg for Commercial/Industrial. Additionally, the Benzo(a)Anthracene concentration of 1.2 mg/kg detected in SB-9 (0 - 2’) exceeds the FDEP LBGC of 0.8 mg/kg for Residential.

The soil analytical results also indicate that the PAH concentrations tested in SB-9 (2' - 4') and SB-9 (4' - 6') do not exceed the FDEP Direct Exposure SCTLs for Residential or the LBGC.

The soil samples placed on hold were unable to be analyzed as the holding time had expired before the laboratory report was submitted to HAI.

SB-13

This soil boring is also part of the grid system and was not evaluated for PAHs during the previous assessments. Therefore, SB-13 was reinstalled, and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-13. The soil samples were collected at the (0 - 2'), (2' - 4') and (4' - 6') intervals. Initially, the soil samples collected at the (0 - 2'), (2' - 4') and (4' - 6') intervals from SB-13 were analyze for PAH via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in this location. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the BaPE concentrations of 0.5 mg/kg detected in SB-13 (0 - 2') and 0.2 mg/kg detected in SB-13 (2' - 4') exceed the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential.

The soil analytical results also indicate that the PAH concentrations tested in SB-13 (4' - 6') do not exceed the FDEP Direct Exposure SCTLs for Residential or the LBGC.

The soil samples placed on hold were unable to be analyzed as the holding time had expired before the laboratory report was submitted to HAI.

CX7-5 (0 - 2')

This is the southern side wall sample from the four-foot Excavation CX7 located east of the former structures located near the center of the subject site. The vertical extent has been delineated in the CX7-5 location. However, horizontal extent to the south, east and west has not been delineated in the CX7-5 location. Therefore, three step-out soil borings were installed approximately 10 feet to the south, east and west of CX7-5 to delineate the horizontal extent of BaPE impacted soil in CX7-5. The soil samples were collected at the (0 - 2'), (2' - 4') and (4' - 6') intervals from the step-out soil borings. Initially, the soil samples collected at the (0 - 2') interval from the step-out soil borings were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the PAH concentrations tested in CX7-5+10S (0 - 2'), CX7-5+10E (0 - 2'), and in CX7-5+10W (0 - 2') do not exceed the FDEP Direct Exposure SCTLs for Residential.

CX7/SB-32 (0 - 2') and SB-33 (0 - 2')

This is the four-foot Excavation CX7 located east of the former structures located near the center of the subject site. The vertical extent has been delineated in Excavation CX7. However, the horizontal extent to the west of previous soil samples SB-32 (0 – 2') and SB-33 (0 – 2') has not been delineated in CX7. Therefore, two soil borings, CX7-8 and CX7-9, were installed immediately beyond the western wall of the excavation to delineate the western extent of BaPE. The soil samples were collected at the (0 - 2'), (2' – 4') and (4' – 6') intervals from soil borings. Initially, the soil samples collected at the (0 – 2') interval from CX7-8 and CX7-9 were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the PAH concentrations tested in CX7-8 (0 – 2') and in CX7-9 (0 – 2') do not exceed the FDEP Direct Exposure SCTLs for Residential.

WX5/SB-36 (0 – 2')

This is the two-foot Excavation WX5 located west of the former single-family structure located near the center of the subject site. The vertical extent has been delineated in the Excavation WX5. However, the horizontal extent to the west of previous soil sample SB-36 (0 – 2') has not been delineated in WX5. Therefore, one soil boring, SB-36W, was installed immediately beyond the western wall of the excavation to delineate the western extent of BaPE. The soil samples were collected at the (0 - 2'), (2' – 4') and (4' – 6') intervals from the soil borings. Initially, the soil samples collected at the (0 – 2') interval from SB-36W was analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the PAH concentrations tested in SB-36W (0 – 2') do not exceed the FDEP Direct Exposure SCTLs for Residential.

SB-37 (0 – 2')

Neither the vertical extent nor horizontal extent to the south has been delineated in the SB-37 area. Therefore, SB-37 were reinstalled, and one step-out soil boring were installed approximately 10 feet to the south of SB-37 to delineate the vertical and horizontal extent of BaPE impacted soil at SB-37 (0 – 2'). Additionally, as a contingency, step out soil borings were installed 10 feet to the north and west of SB-37. The soil samples were collected at the (2' – 4') and (4' – 6') intervals from SB-37 and form the contingency step out soil borings to the north and west of SB-37. The soil samples were collected at the (0 - 2'), (2' – 4') and (4' – 6') intervals from the southern step-out soil boring. Initially, the soil sample collected at the (2' – 4') interval from SB-37 and the soil sample collected at the (0 – 2') interval from the southern step-out soil boring were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the BaPE concentration of 0.2 mg/kg detected in SB-37+10S (0 – 2') exceeds the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential.

Additionally, the soil analytical results indicate that the PAH concentrations detected in SB-37 (2' – 4') and SB-37+10S (2' – 4') do not exceed the FDEP Direct Exposure SCTLs for Residential.

The soil samples placed on hold were unable to be analyzed as the holding time had expired before the laboratory report was submitted to HAI.

SB-38 (0 – 2')

Neither the vertical extent nor horizontal extent to the south, east, and west has been delineated in the SB-38 area. Therefore, SB-38 were reinstalled, and three step-out soil borings were installed approximately 10 feet to the south, east, and west of SB-38 to delineate the vertical and horizontal extent of BaPE impacted soil in the SB-38 area. The soil samples were collected at the (2' – 4'), (2' – 4') and (4' – 6') intervals from SB-38 and soil samples were collected at the (0 - 2'), (2' – 4') and (4' – 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') interval from SB-38 and the soil samples collected at the (0 – 2') interval from the step-out soil borings were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the BaPE concentrations of 0.3 mg/kg detected in SB-38+10S (0 – 2') exceed the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential.

Additionally, the soil analytical results indicate that the PAHs concentrations tested in SB-38 (2' – 4'), SB-38+10S (2' – 4'), SB-38+10E (0 – 2'), and SB-38+10W (0 – 2') do not exceed the FDEP Direct Exposure SCTLs for Residential.

The soil samples placed on hold were unable to be analyzed as the holding time had expired before the laboratory report was submitted to HAI.

SB-40 (0 – 2')

The vertical extent has been delineated in the SB-40 area. However, the horizontal extent has not been delineated in the SB-40 area. Therefore, SB-40 was reinstalled (inadvertently), and four step-out soil borings were installed approximately 10 feet to the north, south, east, and west of SB-40 to delineate the vertical and horizontal extent of BaPE impacted soil in the SB-40 area. The soil samples were collected at the (2' – 4') and (4' – 6') intervals from SB-40R and soil samples were collected at the (0 - 2'), (2' – 4') and (4' – 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') interval from SB-40R and the soil samples collected at the (0 – 2') interval from the step-out soil borings were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if

delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the PAH concentrations detected in SB-40R (2' – 4'), SB-40+10N (0 – 2'), SB-40+10S (0 – 2'), SB-40+10E (0 – 2'), and SB-40+10W (0 – 2') do not exceed the FDEP Direct Exposure SCTLs for Residential.

SB-43 (0 – 2')

Neither the vertical extent nor horizontal extent has been delineated in the SB-43 area. However, the (0 – 2') interval of SB-43 and of the soil 30 feet to the north, 10 feet to the south, 20 feet to the east, and 20 feet to the west was excavated as part of the 2012 excavation of nearby SB-4. Therefore, SB-43 were reinstalled, and three step-out soil borings were installed approximately, 10 feet to the south, 20 feet to the east, and 20 feet to the west of SB-43 to delineate the vertical and horizontal extent of BaPE impacted soil in the SB-43 area. Note that SB-66 of the grid system soil borings was installed approximately 30 feet to the north of SB-43 in lieu of a step-out soil boring 30 feet to the north.

The soil samples were collected at the (2' – 4') and (4' – 6') intervals from SB-43 and soil samples were collected at the (0 – 2'), (2' – 4') and (4' – 6') intervals from the step-out soil borings. Initially, the soil sample collected at the (2' – 4') interval from SB-43 and the soil samples collected at the (0 – 2') interval from the step-out soil borings were analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring locations are provided on Figure 5.

The soil analytical results indicate that the BaPE concentrations detected in SB-43 (2' – 4'), and step-out soil borings SB-43+10S (0 – 2'), SB-43+20E (0 – 2'), and SB-43+20W (0 – 2') do not exceed the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential. Additionally, the BaPE concentration detected in SB-66 (0 – 2') does not exceed the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential.

SB-46 (0 – 2')

The vertical extent and the horizontal extent to the north, east, and south has been delineated in the SB-46 area. However, the horizontal extent to the west has not been delineated in the SB-46 area. Therefore, a step-out soil boring (SB-37+10S) for the SB-37 area was installed 10 feet to the west of SB-46. The soil samples were collected at the (0 – 2'), (2' – 4') and (4' – 6') intervals. Initially, the soil sample collected at the (0 – 2') interval from the step-out soil boring was analyze for PAHs via EPA Method 8270. The remaining soil samples were archived at the laboratory and analyzed only if delineation is required in these locations. The soil boring location is provided on Figure 5.

The soil analytical results indicate that the BaPE concentration of 0.2 mg/kg detected in SB-37+10S (0' – 2') exceeds the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential. However, the soil analytical results indicate that the PAH concentrations

detected in SB-37 (2' – 4') and SB-37+10S (2' – 4') do not exceed the FDEP Direct Exposure SCTLs for Residential.

Grid System Across the Subject Site

HAI observed the installation of soil borings (SB-51 to SB-126) down to the water table (approximately six feet bls) by a licensed well driller using a Geoprobe unit (i.e., direct push methodology) in other areas of the subject site. These soil borings were placed in a grid system at 50-foot intervals from boundary to boundary. The soil boring locations are provided on Figure 5.

Field investigation activities were conducted in accordance with the FDEP Standard Operating Procedures (SOPs) as per Chapter 62-160, FAC. Sampling was conducted by HAI representatives. The soil samples from this assessment were introduced into pre-cleaned sample containers, placed on ice, and transported to Advanced Environmental Laboratories Inc., a NELAC-certified analytical laboratory, for laboratory analysis. Chain of custody documentation accompanied the samples to the laboratory.

The soil samples were collected at the (0 – 6"), (6" – 2'), (0 – 2'), (2' – 4') and (4' – 6') intervals. The soil sample collected at the (0 – 6") and (6" – 2') intervals from the soil borings were analyzed for Total Arsenic via EPA Method 6010, the soil samples collected at the (0 – 2') interval were analyze for PAHs via EPA Method 8270, and the soil samples collected at the (2' – 4') and (4' – 6') intervals were analyzed for Total Arsenic via EPA Method 6010 and PAHs via EPA Method 8270. Additionally, SB-56 (0 – 6") was inadvertently analyzed for PAHs via EPA Method 8270.

Arsenic

The soil analytical results indicate that the Total Arsenic concentrations of 2.7 I detected in SB-51 (4' – 6'), 3.8 I mg/kg detected in SB-54 (0 – 6"), 9.2 mg/kg detected in SB-56 (0 - 2'), 8.5 mg/kg detected in SB-56 (2' - 4'), 2.2 I detected in SB-57 (0 – 6"), 3.0 I detected in 57 (2' – 4'), 2.3 I mg/kg detected in SB-57 (4' – 6'), 5.5 mg/kg mg/kg detected in SB-59 (0 – 6"), 2.6 I mg/kg detected in SB-59 (6" – 2'), 2.3 I mg/kg detected in SB-59 (2' – 4'), 4.1 I mg/kg detected in SB-60 (6" – 2'), 5.6 mg/kg detected in SB-61 (0 – 6"), 2.3 I mg/kg detected in SB-63 (0 – 6"), 2.3 I mg/kg detected in SB-65 (4' – 6'), 2.4 I mg/kg detected in SB-68 (4' – 6'), 4.9 mg/kg detected in SB-69 (2' – 4'), 2. 2 I mg/kg detected in SB-76 (2' – 4'), 12 mg/kg detected in SB-80 (0 – 6"), 10 mg/kg detected in SB-80 (6" – 2'), 3.2 I mg/kg detected in SB-84 (2' – 4'), 8 mg/kg detected in SB-86 (2' – 4'), 3.0 I mg/kg detected in SB-86 (4' – 6'), 4.1 mg/kg detected in SB-87 (0 – 6"), 6.3 mg/kg detected SB-87 (6" – 2'), 2.6 I mg/kg detected in SB-87 (2' – 4'), 8.8 mg/kg detected in SB-91 (0 – 6'), 4.1 I mg/kg detected in SB-92 (0 – 6"), 2.2 I mg/kg detected in SB-92 (4' – 6'), 8.1 mg/kg detected in SB-95 (4' – 6'), 4.8 mg/kg detected in SB-96 (0 – 6"), 7.6 mg/kg detected in SB-96 (6" – 2'), 2.5 I mg/kg detected in SB-96 (2' – 4'), 4.0 I mg/kg detected in SB-96 (4' – 6'), 2.7 I mg/kg detected in SB-99 (6" – 2'), 4 I mg/kg detected in SB-100 (0 – 6"), 3.1 I mg/kg detected in SB-100 (2' – 4'), 2.2 I mg/kg detected in SB-101 (4' – 6'), 5.3 mg/kg detected in SB-102 (0 - 6"), 2.2 mg/kg detected in SB-102 (2' – 4'), 7.1 mg/kg detected in SB-104 (6" – 2'), 2.4 I mg/kg detected in SB-

104 (4' – 6'), 2.6 I mg/kg detected in SB-106 (4' – 6'), 5.9 mg/kg detected in SB-109 (0 – 6"), 3 I mg/kg detected in SB-109 (2' – 4'), 2.8 I mg/kg detected in SB-109 (4' – 6'), 9.4 mg/kg detected in SB-111 (0 – 6'), 12 mg/kg detected in SB-111 (6" – 2'), 12 mg/kg detected in SB-111 (2' – 4'), 4.1 I mg/kg detected in SB-113 (2' – 4'), 3.9 I mg/kg detected in SB-113 (4' – 6'), 2.5 I mg/kg detected in SB-114 (0 -6"), 2.2 I mg/kg detected in SB-114 (6" – 2'), 4.0 I mg/kg detected in SB-114 (4' – 6'), 6.1 mg/kg detected in SB-116 (0 – 6"), 5.3 mg/kg detected in SB-118 (0 – 6"), 2.8 I mg/kg detected in SB-119 (2' – 4'), 2.3 I mg/kg detected in SB-123 (0 – 6"), and 3.0 I mg/kg detected in SB-123 (2' – 4') exceed the FDEP SCTL of 2.1 mg/kg for Residential .

The soil analytical results indicate that the Total Arsenic concentrations of 57 mg/kg detected in SB-65 (0 - 6"), 35 mg/kg detected in SB-65 (6' – 2'), 29 mg/kg detected in SB-67 (0 – 6"), 34 mg/kg detected in SB-67 (6" – 2'), 70 mg/kg detected in SB-72 (0 – 6"), 47 mg/kg detected in SB-75 (0 – 6"), 51 mg/kg detected in SB-75 (6" – 2'), 16 mg/kg detected in SB-95 (2' – 4'), 20 mg/kg detected in SB-104 (0 – 6"), 13 mg/kg detected in SB-107 (4' – 6'), 13 mg/kg detected in SB-111 (4' – 6'), 120 mg/kg detected SB-112 (0 – 6"), and 16 mg/kg detected in SB-112 (6" – 2') exceed the FDEP SCTL of 12 mg/kg for Commercial/Industrial.

Benzo(a)Pyrene Equivalents

The soil analytical results indicate that the BaPE concentrations of 0.2 mg/kg detected in SB-56 (2' – 4') and 0.3 mg/kg detected in SB-110 (4' – 6') exceed the FDEP Direct Exposure SCTL of 0.1 mg/kg for Residential.

Tables 1 and 2 summarizes the soil analytical results. Also included on the tables are applicable SCTLs established by the FDEP. Concentrations of Total Arsenic and Benzo(a)Pyrene Equivalents in the soil at the various intervals are provided in Figures Figures 2 thru 4C. Copies of the laboratory data reports and chain of custody records are provided in Appendix II.

Conclusions

The soil analytical results of this assessment and the previous assessments indicate that the soil at the subject site is impacted with Total Arsenic and BaPE concentrations above the FDEP Direct Exposure SCTLs for Residential at various intervals. Additionally, the Total Arsenic concentrations exceed the FDEP Direct Exposure SCTL for Commercial/Industrial in isolated areas.

The vertical extent of the Total Arsenic and BaPE impacted soil has been delineated by soil samples or extends to the water table. The horizontal extent of the Total Arsenic and BaPE impacted soil has been delineated by soil samples, previous excavations, or the subject site boundaries.

Recommendations

Soil

HAI recommends that the Total Arsenic and BaPE impacted soil above the Residential SCTLs be excavated and transported to a soil treatment facility for proper disposal. The excavations will extend to either delineating soil sample locations (below the FDEP Direct Exposure SCTLs for Residential), the water table, to the subject site boundaries, and/or previous excavations. The extent of the impacted soil shown on Figures 3A to 4C also represents the extent of the proposed excavations.

Groundwater

Additionally, after the source removal activities are completed, HAI recommends further evaluation of the Total Arsenic and PAH concentrations previously detected in the groundwater which will be addressed after the source removal activities. HAI will determine the viability of the monitor wells used for the NAM (MW-2, MW-7, MW-8, MW-9 and MW-10). Figure 5 shows the locations of the monitor wells.

Groundwater samples will be collected from MW-2, MW-7, MW-8, MW-9, and MW-10 for the laboratory analysis of Total Arsenic via EPA Method 6010. Additionally, groundwater samples collected MW-9 and MW-10 will be analyzed for PAHs via EPA Method 8270.

Closing

HAI trusts that this information satisfies the EPGMD's concerns for the subject site. If you have any question or require additional detail, please call our Miami office.

Attachment E



Environmental Protection and Growth Management Department

ENVIRONMENTAL ENGINEERING AND PERMITTING DIVISION

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**STANDARD OPERATING PROCEDURE FOR DEWATERING
(Revision 3, Effective December 1, 2009)**

INTRODUCTION

As required by Broward County Code (Code), any person(s) wishing to conduct dewatering activities at or within a one-quarter-mile radius of a contaminated¹ site must notify and receive approval from the Broward County Environmental Protection and Growth Management Department (Department) prior to implementation. The County's notification requirements for these dewatering activities are outlined in Section 27-355(4) of the Code, which states:

“Prior to any persons conducting dewatering operations at or within a one-quarter-mile radius of a contaminated site, written notification shall be given to [the Department] and shall include, at a minimum:

- Justification for the need for dewatering;
- Water treatment and disposal plans;
- Effect of the dewatering and disposal procedures on the contaminant plume;
- Monitoring program; and
- Where required and authorized by Chapter 471, F.S. [Florida Statutes] or Chapter 492, F.S., applicable portions of dewatering plans shall be signed and sealed by a registered professional engineer or a registered professional geologist.”

Approval of such activities is required by Section 27-353(i) of the Code, which states:

“Dewatering operations at or within a one-quarter-mile radius of a contaminated site shall not be conducted without [Department] approval.”

APPLICABILITY

This Standard Operating Procedure (SOP) and the requirements detailed herein are applicable to dewatering operations within Broward County. “Dewatering” refers to any technique that is employed to lower groundwater level. These requirements apply solely to reviews that are conducted by Broward County Cleanup and Waste Regulation (CWR) Staff for the purpose of ensuring that dewatering operations at or within one-quarter mile of contaminated sites will not result in the exacerbation, migration, or improper treatment of contamination. Please note that additional requirements for dewatering have been established by other agencies and may be established by other Sections within the Department.

Tank Upgrade Exemption

Dewatering operations conducted to facilitate underground storage tank upgrades and replacements necessary to meet the Performance Standards for Category-A and Category-B Storage Tanks of Section 27-307(b), Broward County Code, and Section 62-761.510, Florida Administrative Code (F.A.C.), are exempt from the CWR Section Dewatering Plan review and approval process. To qualify for this exemption, a **Notice of Intent to Dewater** must be provided to CWR Section staff at least five (5) business days prior to dewatering. The Notice of Intent to Dewater must agree to the following conditions:

1. Dewatering duration must not exceed a total of three (3) calendar days (72 hours). If intermittent dewatering

¹ “Contaminant” is defined in Section 27-352, Broward County Code

is performed, this duration is to be considered to be the sum of all actual pumping periods, however clarification should be provided in the Notice of Intent to Dewatering with respect to the overall period that dewatering will be performed;

2. Sheetpile must be installed to a depth not less than 8 feet below the bottom of wellpoint screens;
3. Effluent must be monitored to ensure compliance with turbidity standards, as applicable; and
4. If conducted within a tank farm area known to be contaminated, dewatering effluent must be properly treated and monitored to comply with water quality standards or applicable Cleanup Target Levels of Chapter 62-777, Florida Administrative Code, prior to discharge. Treatment system specifications, laboratory analytics, field notes, and other relevant documentation should be maintained by the party responsible for performing the dewatering.

Any exceptions to conditional items 1 and 2 of this exemption will require the Department's approval of a Dewatering Plan submitted per this SOP. If contamination is encountered during the tank upgrade which has not been previously reported to the Department, dewatering must cease and the Department must be notified in accordance with the requirements of Code Section 27-355.

PROCEDURE

A flow chart which demonstrates this SOP is depicted in Exhibit I, attached. Please note that Exhibit I does not address the tank upgrade exemption as detailed in the previous section.

I. Need for CWR Section Approval of Dewatering Operations

- A. For sites located beyond one-quarter mile of a contaminated site in Broward County, the Department does not include a "No Dewatering Permitted" clause in construction plan approvals. Dewatering may proceed at such sites; however, it is recommended that CWR Section staff be notified for confirmation.
- B. In instances where dewatering is proposed within a contaminated area (i.e., where it is known that groundwater contains contaminants above applicable standards) but where no other contaminated sites are located within one-quarter mile, a Dewatering Plan must be submitted to the CWR Section of the Department for review and approval prior to implementation of dewatering activities; however, the Dewatering Plan should only contain the following:
 1. The contaminated site information outlined in Section II.A. of this SOP for the dewatering location,
 2. The information outlined in Section II.B. of this SOP, and
 3. Proper certification as required by Section II.E. of this SOP.A Dewatering Report to document the dewatering is also required by Section IV of this SOP.
- C. For sites that are located within one-quarter mile of a contaminated site, a Dewatering Plan in accordance with Section II of this SOP must be submitted to the CWR Section of the Department for review and approval prior to implementation of dewatering activities. Dewatering will not be approved under any conditions for operations that may create a drawdown greater than 0.1 foot at a contaminant plume boundary. The Dewatering Plan must meet the requirements established in Section II of this SOP.

II. Dewatering Plan Requirements

- A. **Contaminated locations at and/or within one-quarter mile of the proposed dewatering project must be identified.** At the time of this writing, the Broward County contaminated sites database and corresponding interactive map are available on the internet at <http://www.broward.org/environment/contaminatedsites/Pages/Default.aspx>.

The following items should be included in the Dewatering Plan:

1. Site Number and address for each contaminated site,

2. Contaminant type for each contaminated site,
3. Most recent contaminant plume maps for all groundwater-contaminated sites located within a quarter-mile radius from the proposed dewatering location (if available),
4. Tables of the most recent groundwater analytical data for the nearest groundwater-contaminated site (if available), and
5. A map, drawn to scale, that depicts the particular dewatering location on the site (designation of the site boundaries in general is not adequate) and the locations of identified contaminant plumes.

If contaminant plume maps and data are not available through hardcopy file review with the Department, the Florida Department of Environmental Protection, or the OCULUS petroleum document website (at the time of this writing, located at <https://depedms.dep.state.fl.us/Oculus/servlet/login>), then document this fact in the Dewatering Plan and assume that the contaminant plume is confined to the property boundary of the particular contaminated site.

B. The following information must be provided regarding the scope of the proposed dewatering activities:

1. Purpose of dewatering (i.e., an explanation of why dewatering is necessary),
2. Dewatering technique (i.e., wellpoint, deep well, open hole, etc.),
3. Anticipated dewatering flow rate,
4. Total dewatering duration,
5. Method of effluent discharge,
6. Controls (i.e., settling tank, turbidity curtain, etc.) and a monitoring program employed to ensure that effluent will comply with applicable water quality standards, including turbidity.
7. If conducted in a contaminated area, engineering specifications for dewatering effluent treatment (i.e. air-stripper, carbon filtration, etc.) and details for an analytical monitoring program to ensure that effluent will meet water quality standards established by Section 27-195, Broward County Code. Please note that Certification by a Florida-registered Professional Engineer, specifically, is required for treatment specifications by Section II.E. of this SOP.
8. A description of any proposed controls, including engineering specifications for sheetpile or recharge system. Certification by a Florida-registered Professional Engineer is required for applicable sheetpile specifications by Section II.E. of this SOP.

C. Dewatering plans must contain a technical justification that is adequate to demonstrate the proposed scope of dewatering (as required in Section II.B.) will not affect contaminant plumes. There are two (2) acceptable methods for providing this technical justification:

1. **Manual estimations of the dewatering radius of influence by utilizing SFWMD data or approved aquifer test data to calculate Sichardt's equation.** As a "first pass" of technical justification, Sichardt's equation may be used to determine the radius of influence associated with the dewatering project as discussed in Section II.C.1.b. of this SOP. Details of Sichardt's equation, including an example calculation, are also included as **Exhibit III** to this SOP. The calculation must utilize 1) data from South Florida Management Water District's (SFWMD) Technical Publication 92-05 entitled "A Three Dimensional Finite Difference Groundwater Flow Model of the Surficial Aquifer System, Broward County, Florida" (1992), or 2) data provided by an aquifer test conducted in accordance with Section II.C.1.a. of this SOP.
 - a. Aquifer test performance and data collection must be consistent with the following guidance: Freeze and Cherry (1979), Fetter (1980), Kruseman and Derrider (1990), or Driscoll (1986). CWR Staff will use AQTESOLV (for Windows) to verify aquifer parameters that are generated from hand calculations and/or computer modeling analysis of aquifer tests. Aquifer Test Data may be collected in one of three (3) ways:
 - (1) Historical aquifer test data from the CWR Section's in-house database may be obtained by contacting David Vanlandingham, P.E., at (954) 519-1478 or dvanlandingham@broward.org. The information contained in the CWR Aquifer Test database has been reviewed by CWR Section staff

- for quality assurance.
- (2) Other historical aquifer test data may be submitted if the test was performed within one-quarter mile of the proposed dewatering location and:
 - (a) Groundwater elevations were measured in at least three (3) observation wells (not including the test well) with varying distances from the recovery well,
 - (b) Data is collected from the beginning of the test until near steady-state conditions are achieved, and
 - (c) Unconfined aquifer conditions and partially penetrating wells were considered in analysis of the aquifer test data².
 - (3) Perform an aquifer test at the proposed dewatering location. Notification must be provided using Exhibit II and written approval must be obtained from CWR staff prior to implementation of the aquifer test. Approvals may be granted through email or facsimile. The test data will be acceptable if the conditions of Section II.C.1.a.(2) are met; in addition,
 - (a) observation wells are to be installed in a line between the dewatering locations and the nearest identified contaminant plume³, and
 - (b) one of the observation wells is located at the edge of the proposed dewatered area.
- b. Utilizing Sichardt's equation, a manual (hand) calculation may be performed to determine the projected radius of influence associated with the proposed dewatering activity and the flow rate necessary to produce the required drawdown. This calculation is detailed in Exhibit III accompanying this SOP.
- (1) If the estimated value of radius of influence is less than the distance to the edge of the nearest contaminant plume, the Dewatering Plan may be approved (an example approval letter is provided in Exhibit IV).
 - (2) **If the estimated radius of influence is greater than the distance to the edge of the nearest contaminant plume, then groundwater modeling is required pursuant to Section II.C.2. of this SOP.** The dewatering scope of work may also be revised or hydraulic controls (for instance, sheetpile or artificial groundwater mounding via recharge trenches or wells) may be proposed; however, any hydraulic controls proposed must still be justified through the use of computer modeling in accordance with Section II.C.2. of this SOP, as manual calculations which consider hydraulic controls are not available⁴.
2. **Groundwater modeling within a three-dimensional computer model utilizing SFWMD data or approved aquifer test data.** The model framework must utilize 1) data from South Florida Water Management District's (SFWMD) Technical Publication 92-05 entitled, "A Three Dimensional Finite Difference Groundwater Flow Model of the Surficial Aquifer System, Broward County, Florida" (1992), or 2) aquifer test data obtained in accordance with in Section II.C.1.a. of this SOP.

All models, regardless of the software used to construct them, are to be properly documented. The Division will use Visual MODFLOW Pro to verify all modeling analyses. Any Dewatering Plan that includes computer modeling must also contain the following information, as applicable:

- a. A compact disc with a copy of all model data including all necessary input, support, and output files.
- b. Map file used as base coverage in .dxf or .bmp format.

² If these conditions are not met, the test data may be reanalyzed by the applicant via a method that will consider unconfined aquifer and partially penetrating well scenarios.

³ These observation points may also be used to meet the requirements of groundwater monitoring, as outlined in Section II.D. of this SOP.

⁴ The manual calculation method cannot be used for sites where artificial groundwater mounding is proposed as a hydraulic control. Artificial groundwater mounding as a means of hydraulic control may only be justified through computer modeling as outlined in Section II.C.2. of this SOP.

- c. Model domain including the number of columns, rows, and layers. Grid spacing must also be documented for areas of the model with increased cell resolution.
- d. Model extent including X-axis, Y-axis, and Z-axis minimum and maximum. Also include coordinates (Lat/Lon, UTM, State Plane) if the model extent are referenced to specific geographic locations. The model should cover a sufficient area as to allow for a true representation of ground water flow during dewatering without undue influence from boundary conditions.
- e. Model units for length, time, conductivity, pumping rate, mass, and concentration as applicable.
- f. Surface elevation and bottom elevation of all layers. If layer elevation is not a constant, then submit a spreadsheet containing x, y, z data in either .txt or .xls format or as a Surfer[®] .grd file.
- g. Conductivity values of all layers including Kx, Ky, and Kz. If conductivity data vary within a layer then submit a file in .txt, .xls, or .shp format. Also include all data interpolation information as applicable. If layer elevation is not a constant, then submit a spreadsheet containing x, y, z data in either .txt or .xls format or as a Surfer[®] .grd file.
- h. Specific Storage (Ss) and Specific Yield (Sy) values of all layers. If Ss and/or Sy data vary within a layer, then submit a file in .txt, .xls, or .shp format. Also include all data interpolation information as applicable.
- i. Porosity and effective porosity values of all layers. If porosity and/or effective porosity data vary within a layer, then submit a file in .txt, .xls, or .shp format. Also include all data interpolation information as applicable.
- j. Pumping well specifications including exact map coordinates, screened interval, pump rate, and pumping duration.
- k. Head observation well specifications including exact map coordinates, screened interval, observation point elevation, and all water table elevation measurements.
- l. Concentration well specifications including exact map coordinates, screened interval, contaminant being monitored, observation point elevation, and all concentration measurements.
- m. The type (constant head, rivers, general head, drains, walls, etc.) and model-grid location for all boundary conditions including an explanation of their selection and description of their input parameters. Boundary conditions should be defined as to not artificially influence ground water flow in the dewatering area or nearby contaminated sites.
- n. Acknowledgment that the model ignores recharge to maintain a conservative estimate of dewatering influence.
- o. Particle tracking information including number of particles, initial particle locations, and release times if applicable. All particles are to be tracked in the forward direction.
- p. If Zone Budget is used to estimate a dewatering flow rate, then the number and model-grid location of zones and output information must be included, as applicable. The type of model run (Steady State Flow or Transient Flow) must also be specified. The Division recommends running the model using only documented boundary conditions under Steady State Flow to determine initial heads. Transient Flow should be used for the duration of proposed dewatering.
- q. The time steps utilized during Transient Flow model runs.
- r. Figures showing model output as both Head Equipotentials and Drawdown at the end of the proposed dewatering period for each modeled layer.
- s. A figure identifying the 0.1-foot and 0.01-foot drawdown contours at the end of dewatering.

D. The Dewatering Plan must propose a groundwater monitoring program subject to the following:

1. Should a manual estimation of the radius of influence performed in accordance with Section II.C.1. of this SOP indicate that the radius of influence is less than the distance to the nearest contaminant plume, no monitoring program is required (an example approval letter is provided in Exhibit IV).
2. Should modeling performed in accordance with Section II.C.2. of this SOP indicate that the closest groundwater contaminant plume is outside of the 0.01-foot drawdown contour, no monitoring program is required (an example approval letter is provided in Exhibit IV).
3. Should modeling performed in accordance with Section II.C.2. of this SOP indicate the closest groundwater contaminant plume lies between the 0.01-foot and 0.1-foot drawdown contours, a monitoring program is

required (Exhibit IV will be modified by the Division to reflect specific requirements). The monitoring program must include:

- a. A table of groundwater elevation data collected from a minimum of three observation points, placed on a line between the dewatering location and the nearest contaminant plume. Data shall be collected:
 - (1) Prior to initiating dewatering activities to establish baseline elevations. Locations that are tidally influenced may require more than one baseline monitoring event.
 - (2) Daily during the first week of dewatering activities, and weekly thereafter until dewatering operations cease. The applicant should make every effort to collect data at the same time of day to reduce the influence of daily fluctuations.
 - b. A map, drawn to scale, detailing the observation point locations relative to the dewatering project, and
 - c. A map, drawn to scale, including water table elevations from observation points and an indication of ground water flow direction.
4. Should a manual estimation of the radius of influence performed in accordance with Section II.C.1. of this SOP indicate that the radius of influence is greater than the distance to the nearest contaminant plume, or should modeling performed in accordance with Sections II.C.2. of this SOP indicate that the closest contaminated plume lies within the 0.1-foot drawdown contour, dewatering will **not** be approved by the Division. The Dewatering Plan may be revised or hydraulic controls (i.e., sheetpile cofferdam or artificial groundwater mounding via recharge) must be proposed and justified. If, in this event, hydraulic controls are proposed, computer modeling must be performed in accordance with Section II.C.2. of this SOP, as manual calculations that consider hydraulic controls are not available⁵.

E. All applicable portions of Dewatering Plans must be certified by a registered Professional Engineer or a registered Professional Geologist, as provided in Chapter 471, F.S., or Chapter 492, F.S.

F. The Dewatering Plan must contain the contact information for the entity that is assuming responsibility for the specified conditions of the Department's approval. The company name, a representative name, address, and phone number should be included, as applicable.

G. There is no review fee or "application" for the Dewatering Approval. Simply submit one (1) certified original of the Dewatering Plan to the Department, to the attention of David Vanlandingham, P.E., at this letterhead address.

III. CWR staff shall have a period of ten (10) business days to review Dewatering Plans submitted pursuant to this SOP and to provide comment and/or approval.

IV. A Dewatering Report must be submitted within thirty (30) days of completion of approved dewatering activities to document actual flow rates and field monitoring data, including any monitoring conducted pursuant to Sections II.B.6., II.B.7, and II.D. of this SOP.

⁵ The manual calculation method cannot be used for sites where artificial groundwater mounding is proposed as a hydraulic control. Artificial groundwater mounding as a means of hydraulic control may only be justified through computer modeling as outlined in Section II.C.2. of this SOP.

References

Chapter 27 of the Code of Ordinances of Broward County, Florida. Tallahassee, Florida: Municipal Code Corporation, 2001.

Driscoll, Fletcher G. *Groundwater and Wells* (Second Edition). St. Paul, Minnesota: Johnson Filtration Systems, Inc., 1986

Fetter, C.W. *Applied Hydrogeology* (Third Edition). New York, New York: Macmillan College Publishing Co., 1994.

Geraghty & Miller, Inc. AQTESOLV. Reston, Virginia: James O. Rumbaugh, III, developer.

Freeze, R. Allan, and Cherry, John A. *Groundwater*. Englewood Cliffs, New Jersey: Prentice Hall, 1979.

Kruseman, G.P., and De Ridder, N.A., Analysis and Evaluation of Pumping Test Data. Wageningen, The Netherlands: International Institute for Land Reclamation and Improvement/ILRI, 1990.

Powers, J. Patrick, P.E. *Construction Dewatering: New Methods and Applications - Second Edition*. New York, New York: John Wiley & Sons, 1992

South Florida Water Management District (SFWMD). *A Three Dimensional Finite Difference Groundwater Flow Model of the Surficial Aquifer System, Broward County, Florida*. West Palm Beach, Florida: Technical Publication 92-05, 1992.

Waterloo Hydrogeologic. Visual MODFLOW Pro (v.3.0.0). Waterloo, Ontario, Canada.

EXHIBIT I: Decision Flow Chart for SOP

