DEPARTMENT OF THE ARMY
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
POST OFFICE BOX 867
LITTLE ROCK, ARKANSAS 72203-0867
www.swl.usace.army.mil

CESWL-RD 31 October 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] **SWL-2025-00239**[2]

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[3] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[4] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[5] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of “waters of the United States” found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 “Revised Definition of ‘Waters of the United States,’” as

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[1] While the Supreme Court’s decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).
[3] 33 CFR 331.2.
[4] Regulatory Guidance Letter 05-02.
[5] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in this state due to litigation.

1. SUMMARY OF CONCLUSIONS.

    a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

        i. OW-1, non-jurisdictional

        ii. Non-RPW-1, non-jurisdictional

        iii. RPW-1, jurisdictional, Section 404

        iv. RPW-2, jurisdictional, Section 404

        v. W-1, jurisdictional, Section 404

        vi. W-2, jurisdictional, Section 404

        vii. W-3, jurisdictional, Section 404

        viii. W-4, non-jurisidictional

2. REFERENCES.

    a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

    b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

    c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

    d. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023)

3. REVIEW AREA. The review area encompasses approximately 60 acres located in located in Fort Smith, Arkansas north of Country Club Ave and south of S Street, just west of Old Greenwood Rd. The site is an old, abandoned ACME brick quarry that has been significantly disturbed due to the previous activity and has since been acquired by the City of Fort Smith. The legal description for the review area is the SW ¼ of Section 22, Township 18 North, Range 32 West, Fort Smith, Sebastian

County, AR, with an approximate geographic center at latitude 35.359202, longitude -94.398476. The review area is located within the City of Fort Smith-Arkansas River sub-watershed (12-digit HUC 111101040612) within the Arkansas-Red-White Region (8-digit HUC 11110104). The review area is characterized by sparse vegetation and a largely barren landscape in the old quarry excavation area and equipment staging areas. Historical imagery indicates water accumulation in the northern portion of the quarry. Woodland surrounds the quarried area, creating a perimeter along the south and west. Riverine features and associated wetlands are present along the western property line, extending north through the site. Site location, topography, and aquatic resources within the review area are illustrated in the enclosed maps and Figures 1-11.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. The nearest Traditional Navigable Water (TNW) is Arkansas River (11110104) which is designated as a Section 10 waterway.[6]

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. Site hydrology indicates a flow path from RPW-1, Non-RPW-1, OW-1, W-1, W-2, and W-3 towards an unnamed tributary (RPW-2) that passes through a culvert under an old access road. RPW-1 flows north from the southwestern site boundary, converging with W-3, W-1, and W-2 before entering RPW-2. OW-1 contributes flow northward through Non-RPW-1 into RPW-2. W-4 appears to be an isolated feature, potentially conveying flow to RPW-1 during significant rainfall events. RPW-2 briefly exits the property at the northern boundary before re-entering to the east, continuing north and ultimately exiting the site via culverts and surface water drainages into an unnamed tributary before discharging into the Arkansas River (TNW).

6. SECTION 10 JURISDICTIONAL WATERS[7]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[8] N/A

[6] This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.
[7] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as “navigable in law” even though it is not presently used for commerce or is presently incapable of such use because of changed conditions or the presence of obstructions.
[8] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

   a. TNWs (a)(1): N/A

   b. Interstate Waters (a)(2): N/A

   c. Other Waters (a)(3): N/A

   d. Impoundments (a)(4): N/A

   e. Tributaries (a)(5): The agent identified three stream drainages within the review area, two of which are considered jurisdictional: RPW-1 (914 lf) and RPW-2 (1,116 lf). RPW-1, a relatively permanent water feature, traverses the southern half of the site in a generally northerly direction. Originating from a spring-fed pond south of Country Club Avenue, RPW-1 initially appears pooled due to a partially obstructed culvert beneath a former access road. The feature is impounded by a beaver dam near the site center, creating Wetland W-2. RPW-1 exhibits distinct bed and bank morphology with a predominantly gravel bed with varying degrees of incision and an average width of approximately 5 feet at the discernable Ordinary High Water Mark (OHWM). Substantial flow was observed during the Corps site visit and the feature is considered jurisdictional. Relatively Permanent Water (RPW-2) originates as two branches discharging from either end of a beaver dam impounding W-2. These branches converge after approximately 166 linear feet (RPW-2 Branch) and continue north, passing through a culvert under an old access road mid-course. The tributary briefly exits and re-enters the property along the northern boundary, ultimately flowing off-site after a total length of 1,116 linear feet. RPW-2 exhibits distinct bed and bank morphology and maintains a gravel bed throughout its course, becoming increasingly incised towards the north. Observations during the Corps site visit

329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

confirmed significant flow and the presence of small fish and macroinvertebrates indicative of moderate to lengthy flow duration, with hydrology supported by W-2, which is supplemented by W-3. The stream averaged approximately six feet in width at the discernable the Ordinary High Water Mark (OHWM). Based on agent report, site inspections, and a desktop evaluation, RPW-2 exhibited consistent flow and hydrologic indicators meeting the RPW standard and is therefore jurisdictional.

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): The agent identified four wetland features, three of which are considered jurisdictional within the review area that were confirmed by a Corps site visit: Wetland W-1 (0.05-acre), Wetland W-2 (0.39-acre), and Wetland W-3 (0.33-acre). W-1 is an emergent wetland located east of W-2. W-1 is comprised of a series of depressions along the W-2 bank, located on the toe slope of the adjacent ridge. These depressions appear to be routinely inundated with water and demonstrate a continuous surface connection to W-2 via breaks in the stream bank. The vegetative community is relatively sparse, dominated by whitegrass (*Leersia virginica*), Frank's sedge, and scattered common rush (*Juncus effusus*). Based on meeting the observed wetland criteria and possessing a continuous surface connection to W-2, W-1 is a jurisdictional feature. W-2 is a depressional emergent wetland feature resulting from previous beaver impoundments along RPW-1. Hydrology is maintained by the impounded flow of RPW-1, creating significant ponding within the tributary channel and extending back into a depressional area adjacent to the stream. The vegetative community is dominated by willows growing within the pooled water, with whitegrass, Alabama supplejack (*Berchemia scandens*), and common rush (*Juncus effusus*) present in areas closer to the water surface. W-2 is largely contained by the eroded banks of RPW-1, providing clear delineation from surrounding uplands. Based on its direct association and continuous surface connection with both RPW-1 and RPW-2, W-2 is considered a jurisdictional feature. W-3 is a forested depressional feature situated between the western site boundary and W-2. The area exhibits nearly level topography. Groundwater emerges from multiple springs along a large fill mound bordering the western boundary, dispersing across a riparian terrace adjacent to the tributary. Numerous small channels were actively flowing from west to east during a Corps site visit, with water visibly draining into W-2 at multiple points along the bank. Significant iron-oxide deposits produced by hydrophilic bacteria were present, particularly near the spring sources. The wetland was dominated by dense Alabama supplejack vines. The overstory included black willow (*Salix nigra*), with sycamores (*Platanus occidentalis*) and cottonwoods (*Populus deltoides*). Understory vegetation consisted of Frank's sedge, swamp agrimony (*Agrimonia parviflora*), and late goldenrod (*Solidago gigantea*). Given the direct discharge of water from W-3 into W-2, and the continuous surface connection to jurisdictional waters, W-3 is considered jurisdictional.

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[9] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. N/A

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance. N/A

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water). The agent identified one

[9] 51 FR 41217, November 13, 1986.

stream feature confirmed by the Corps site visit that was considered non-jurisdictional: Non-RPW-1 (208 lf). Non-RPW-1 is an ephemeral stream conveying flow from Open Water OW-1 to RPW-2. The channel may have been man-made along an existing swale or drainage, likely excavated to discharge quarry pit hydrology. Stream width averages three feet, with highly incised and eroding banks indicative of a flashy, runoff drainage profile. Flow was minimal and not conveyed through the entire channel during the Corps site visit, with pooling occurring where the stream converges with RPW-2 and with an indistinct hydrologic connection indicating a lack of relatively permanent flow and connectivity to downstream jurisdictional waters. Because the feature appears to exhibit flow duration and geomorphological characteristics consistent with ephemeral streams in the region, Non-RPW-1 is considered non-jurisdictional. The agent identified one wetland that was considered non-jurisdictional: Vernal Pool W-4 (0.007-acre). W-4 is a vernal pool located south of the site, situated in a depression adjacent to RPW-1 and connected by a small break in the tributary bank. The pool is shaded by a dense tree canopy and contained standing water with substantial leaf litter during both the agent site visit and the feature was observed to be dry during the Corps site visit. No vegetation was observed. Due to the lack of an observable continuous surface connection to RPW-1, this feature is not jurisdictional. The agent identified one open water feature within the review area that was confirmed by Corps personnel: Open Water (Old Quarry) OW-1 (0.65-acre). OW-1 is a manmade excavated feature formed within the low points of the abandoned onsite quarry, which ceased operations around 2019 and subsequently began ponding. The quarry's northern section, where water occasionally accumulates and discharges flow through a culvert directing it northwest via Non-RPW-1 to RPW-2. Although water was observed and noted in the agent's delineation report, the basin was entirely dry during the Corps site visit in June. OW-1 does not possess a continuous surface connection to jurisdictional waters and is therefore non-jurisdictional.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

   a. Corps desktop review, October 30, 2025.

   b. Corps Site Inspection Report: SWL-2025-00239 Site Inspection, August 7, 2025.

   c. Agent provided Section 404 Delineation Report: ACME Brick NWP Application (6-25), June 30, 2025.

   d. NHD data accessed on National Regulatory Viewer, Accessed October 30, 2025.

e. USGS Topographic Quadrangle South Fort Smith, AR (1:24K), Accessed October 30, 2025.

f. U. S. Fish and Wildlife Service. Publication date (found in metadata). National Wetlands Inventory website, Accessed October 30, 2025.

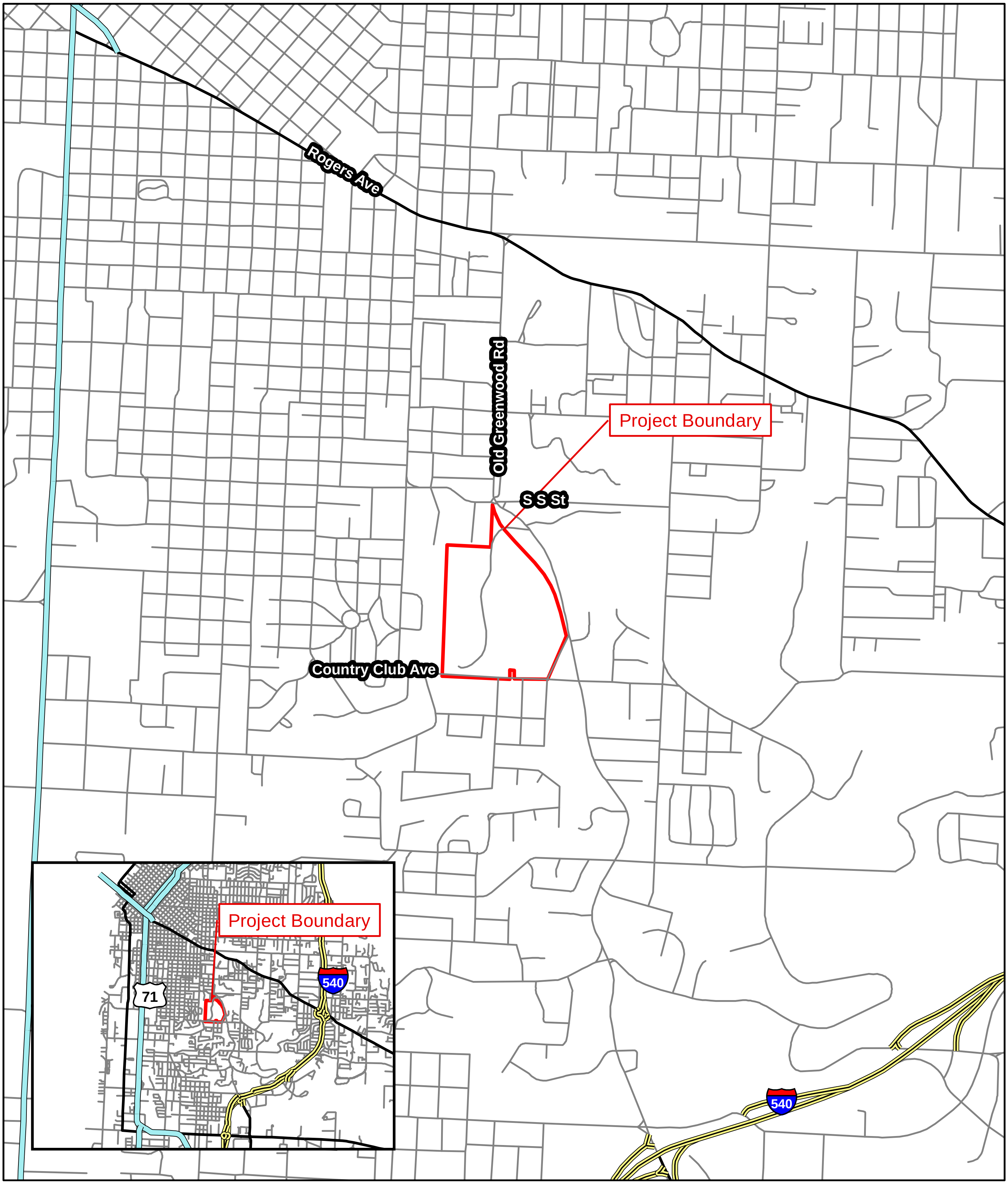
g. Google Earth Pro. (1994-2025 Imagery). *Lat. 35.3592°, Long. -94.3985°,* Accessed October 30, 2025.

h. USDA Natural Resources Conservation Service Soil Survey. Citation: USDA-NRCS Web Soil Survey, October 30, 2025.

10. OTHER SUPPORTING INFORMATION.

Leasure, D.R.; Magoulick, D.D.; Longing, S.D. 2016. Natural flow regimes of the Ozark-Ouachita interior highlands region. River Res. Appl. 32: 18–35

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



NORTH
Feet
0 1,000 2,000

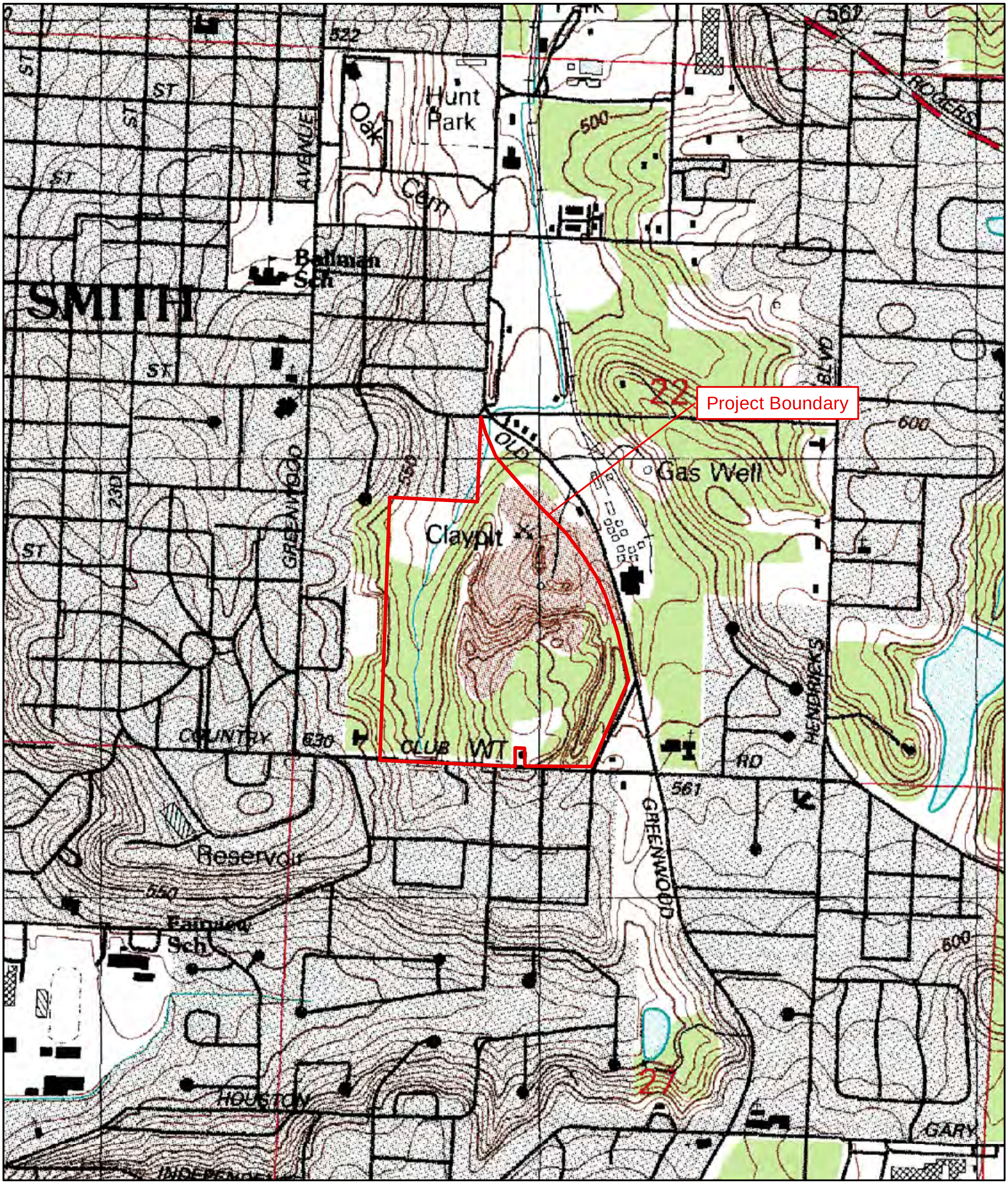
Source: Arkansas Geostor
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R 32W,
Sebastian County, Arkansas

FIGURE 1
SITE VICINITY MAP

ACME BRICK NWP
SEBASTIAN COUNTY, ARKANSAS

HABITAT

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 1 of 11



NORTH

Feet

0 500 1,000

Source: USGS
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

FIGURE 2
USGS MAP

ACME BRICK NWP
SEBASTIAN COUNTY, ARKANSAS

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 2 of 11

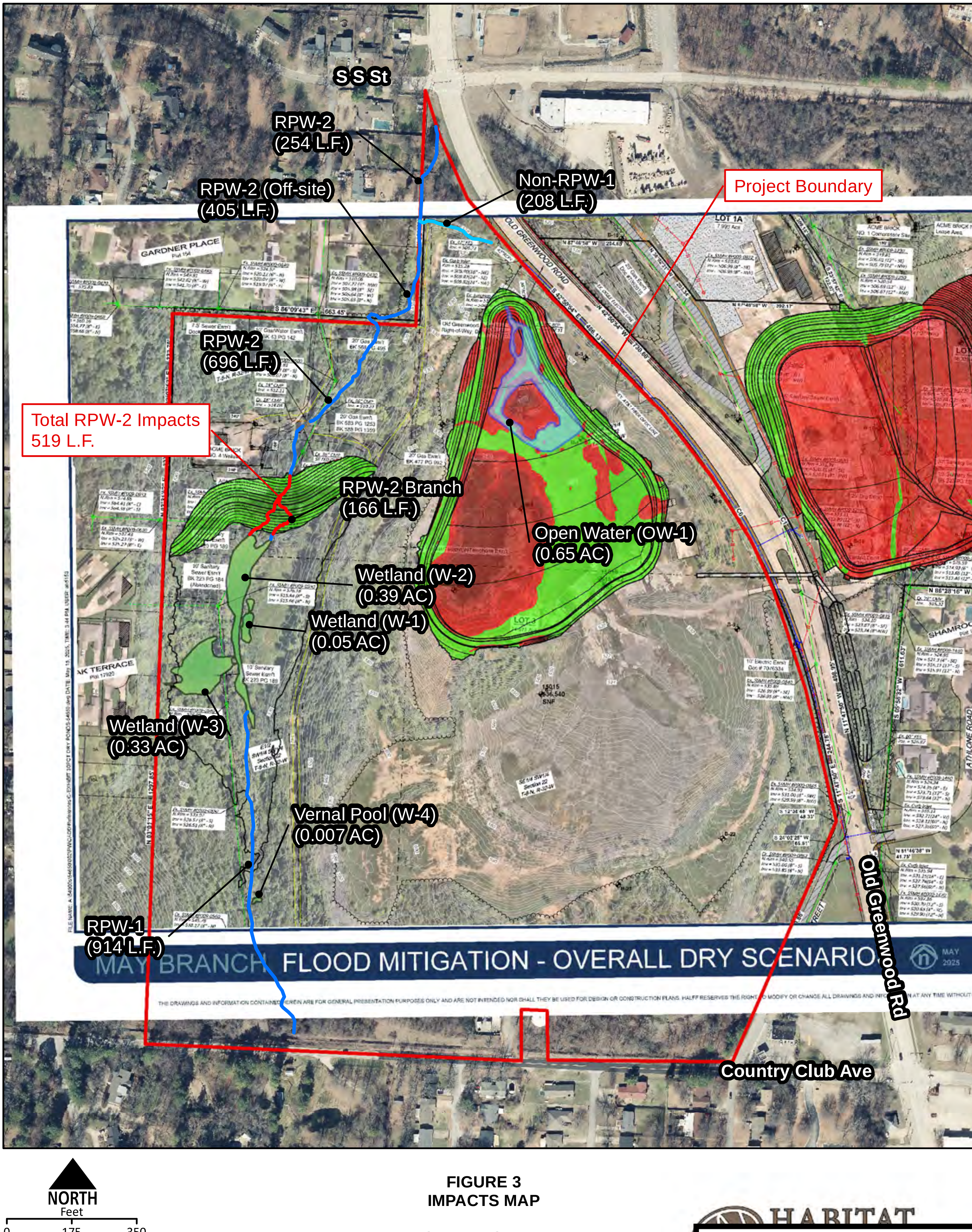


FIGURE 3
IMPACTS MAP

ACME BRICK NWP
SEBASTIAN COUNTY, ARKANSAS

Source: NAIP 2023
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 3 of 11

Source: USDA
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

FIGURE A-3
SOILS MAP

ACME BRICK JD
SEBASTIAN COUNTY, ARKANSAS

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 4 of 11

NORTH
Feet
0 350 700

Source: USFWS
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

FIGURE A-4
NWI MAP

ACME BRICK JD
SEBASTIAN COUNTY, ARKANSAS

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 5 of 11

NORTH

Feet

0 175 350

Source: NAIP 2023
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

FIGURE A-5
AERIAL MAP

ACME BRICK JD
SEBASTIAN COUNTY, ARKANSAS

HABITAT

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 6 of 11

NORTH
Feet
0 175 350

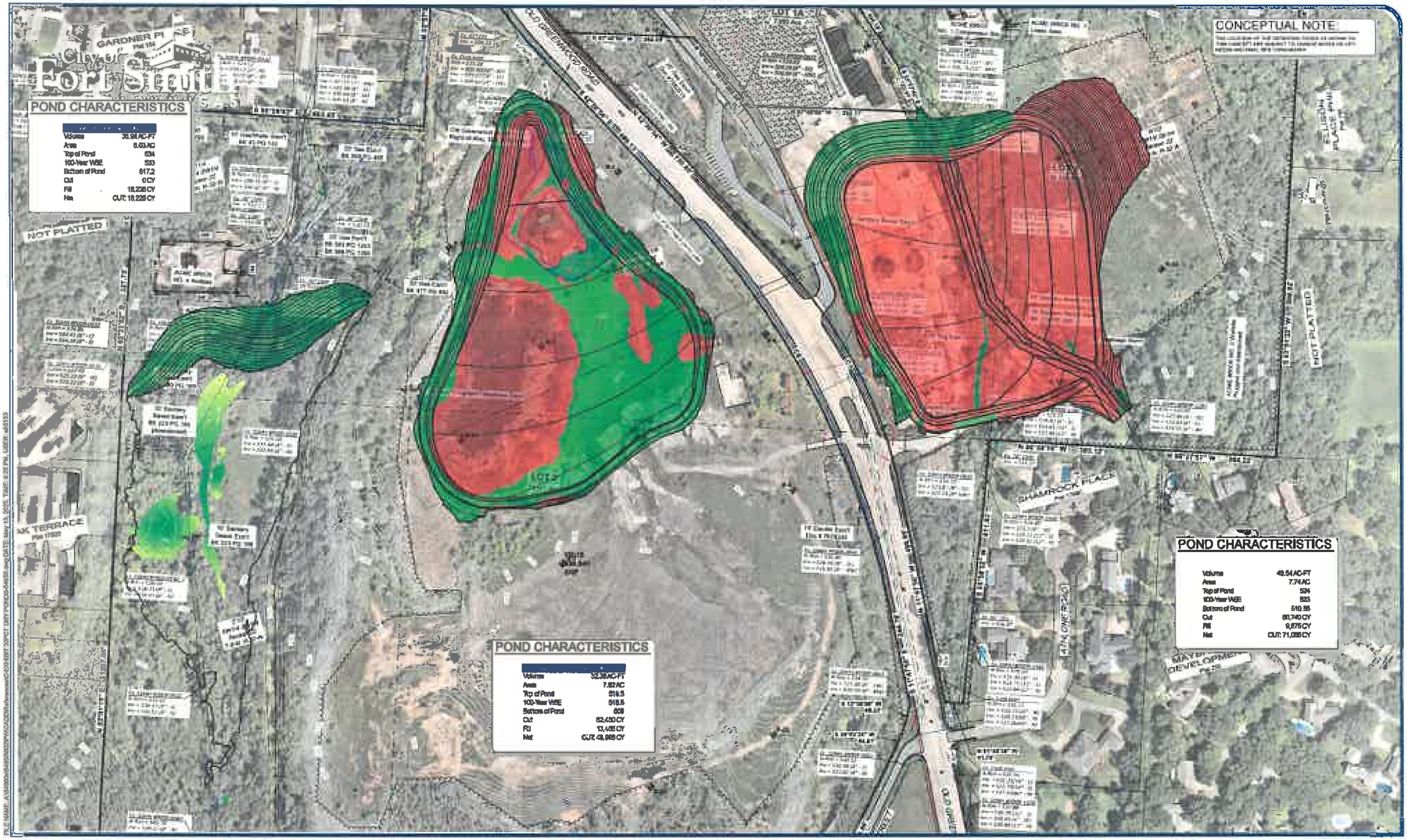
Source: NAIP 2023
Location: South Fort Smith 1:24K Quadrangle
SW 1/4 SEC 22 - T 18N - R32W,
Sebastian County, Arkansas

FIGURE D-1
RESOURCE MAP

ACME BRICK JD
SEBASTIAN COUNTY, ARKANSAS

HABITAT

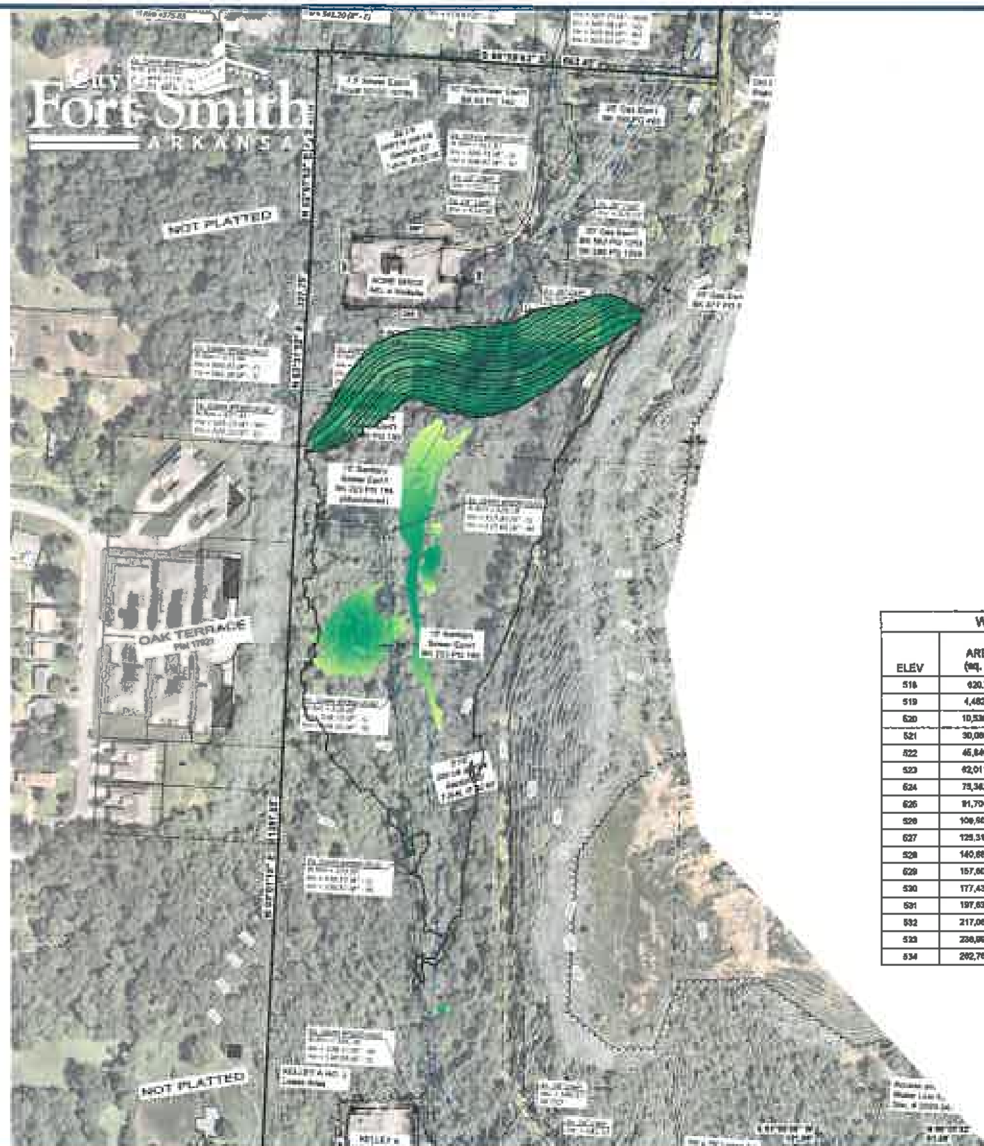
Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.
October 2025 Page 7 of 11



MAY BRANCH FLOOD MITIGATION - OVERALL DRY SCENARIOS

halff
5704 EUPER LN., SUITE 200
FORT SMITH, ARKANSAS 72903
TEL. (479) 452-1033

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.



CONCEPTUAL NOTE:

THE LOCATION OF THE DETENTION PONDS AS SHOWN ON THIS CONCEPT ARE SUBJECT TO CHANGE BASED ON CITY NEEDS AND FINAL SITE TOPOGRAPHY

POND CHARACTERISTICS

Volume	35.94 AC-FT
Area	6.03 AC
Top of Pond	534
100-Year WSE	533
Bottom of Pond	517.2
Cut	0 CY
Fill	16,225 CY
Net	CUT 16,225 CY

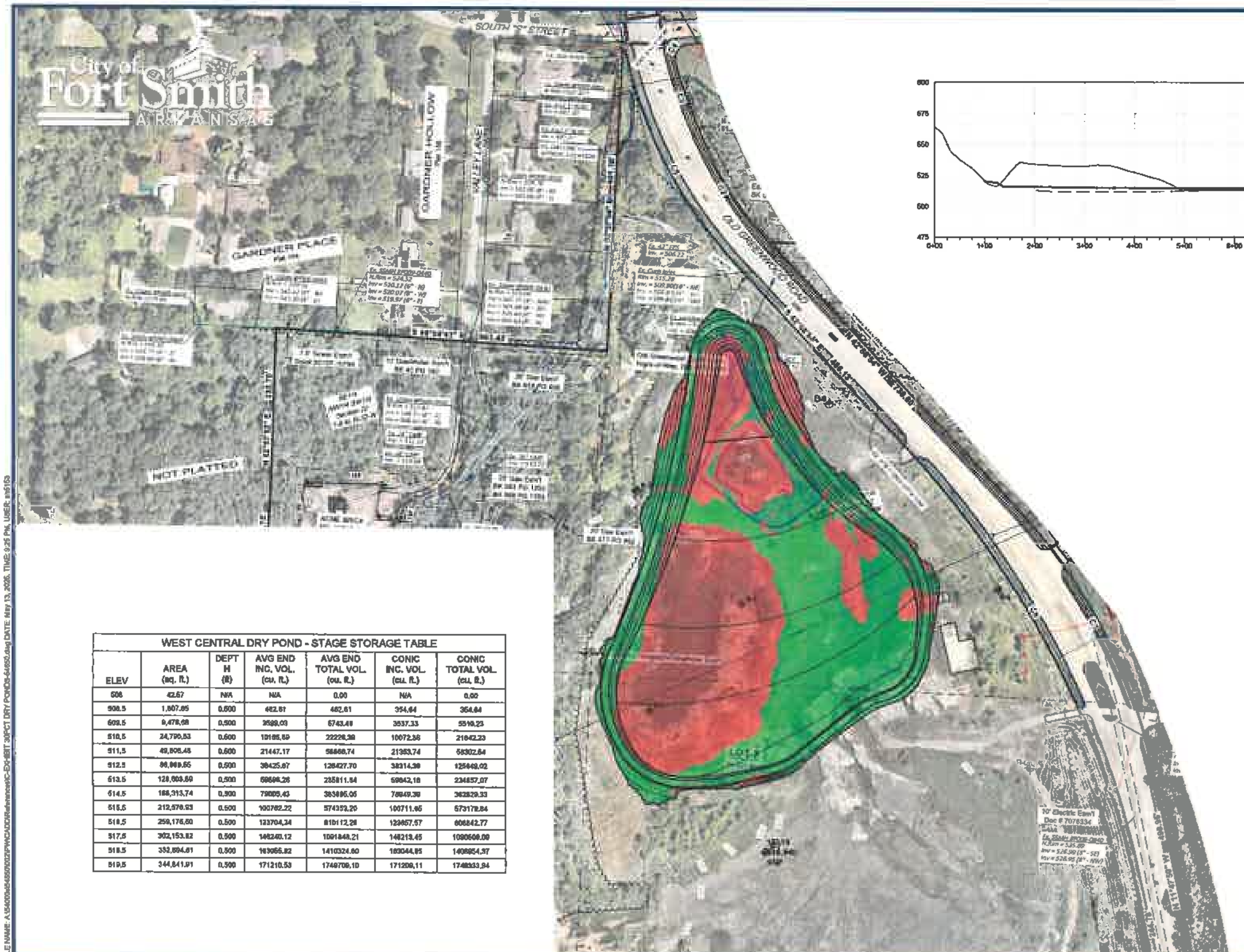
WEST CREEK DAM DRY - STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
518	620.75	N/A	N/A	0.00	N/A	0.00
519	4,482.14	1.000	2551.45	2551.45	2258.97	2258.97
520	10,536.92	1.000	7509.53	10060.98	7297.11	9554.08
521	30,089.11	1.000	20313.02	30374.00	19477.29	29031.38
522	45,840.42	1.000	37964.76	68338.76	37689.47	66720.83
523	62,011.44	1.000	53925.93	122264.69	53722.73	120443.56
524	75,362.88	1.000	68687.06	190951.75	68578.67	189022.24
525	91,704.79	1.000	83533.73	274485.49	83400.20	272422.44
526	109,606.04	1.000	100656.41	375141.90	100523.47	372945.90
527	125,318.18	1.000	117462.11	492604.01	117374.48	490320.38
528	140,685.88	1.000	133001.03	625605.03	132926.96	623247.35
529	157,601.55	1.000	149243.71	774848.75	149161.86	772409.21
530	177,437.96	1.000	167519.77	942468.51	167523.84	939933.04
531	197,636.15	1.000	187537.07	1130005.58	187446.36	1127379.40
532	217,062.56	1.000	207349.35	1337354.94	207273.48	1334652.88
533	238,992.85	1.000	228027.71	1565382.64	227939.77	1562592.65
534	262,764.17	1.000	250878.51	1816261.15	250784.61	1813377.26

MAY BRANCH FLOOD MITIGATION - W. CREEK DAM - DRY

halff

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.



WEST CENTRAL DRY POND - STAGE STORAGE TABLE						
ELEV	AREA (sq. ft.)	DEPT H (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
508	42.67	N/A	N/A	0.00	N/A	0.00
508.5	1,807.65	0.500	462.61	462.61	354.64	354.64
509.5	9,478.68	0.500	3599.03	6743.48	3537.33	5519.23
510.5	24,790.53	0.500	19185.69	22228.39	10072.36	21642.23
511.5	49,806.48	0.500	21447.17	58668.74	21353.74	58302.64
512.5	86,869.65	0.500	38425.67	126427.70	38314.38	125649.02
513.5	128,603.59	0.500	69696.26	235811.84	59842.18	234857.07
514.5	168,313.74	0.500	79005.43	383895.06	78849.38	382829.33
515.5	212,576.93	0.500	100762.22	574353.20	100711.65	573178.84
516.5	259,176.60	0.500	123704.34	810112.28	123657.57	808842.77
517.5	302,153.82	0.500	148240.12	1091848.21	148213.45	1090606.09
518.5	332,894.61	0.500	163066.82	1410324.60	163044.85	1408954.37
519.5	344,641.91	0.500	171210.53	1749709.10	171209.11	1748933.94

CONCEPTUAL NOTE:

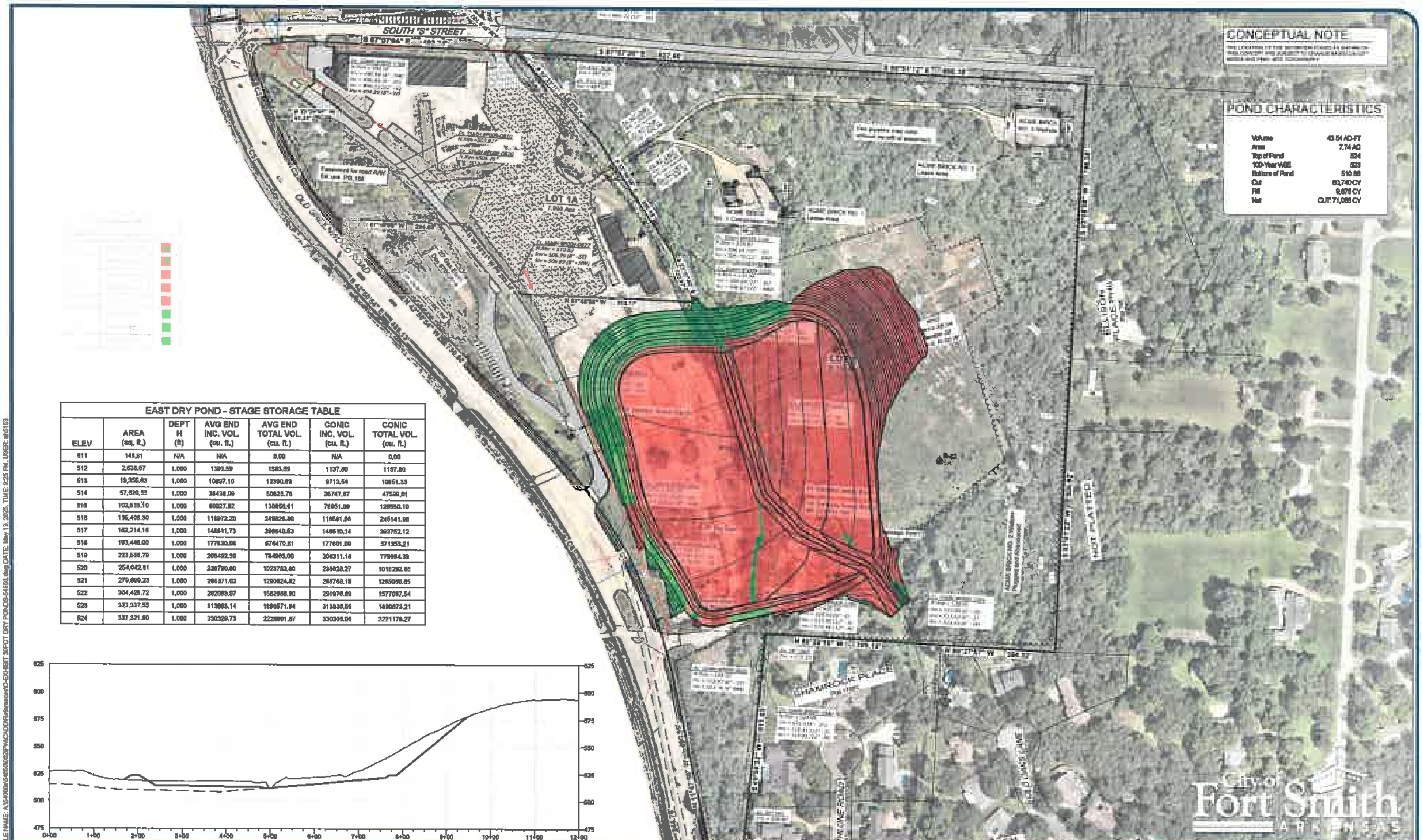
THE LOCATION OF THE DETENTION PONDS AS SHOWN ON THIS CONCEPT ARE SUBJECT TO CHANGE BASED ON CITY NEEDS AND FINAL SITE TOPOGRAPHY

POND CHARACTERISTICS

Volume	32.38 AC-FT
Area	7.92 AC
Top of Pond	519.5
100-Year WSE	516.5
Bottom of Pond	508
Cut	62,460 CY
Fill	13,405 CY
Net	CUT: 48,955 CY

MAY BRANCH FLOOD MITIGATION - W. CENTRAL POND - DRY

halff
5704 EUPER LN., SUITE 200
FORT SMITH, ARKANSAS 72903
TEL. (479) 452-1933



POND CHARACTERISTICS

Volume	43.54 AC-FT
Area	7.74 AC
Top of Pond	524
100-Year WSE	523
Bottom of Pond	510.88
Cut	60,740 CY
Fill	9,675 CY
Net	CUT: 71,088 CY

EAST DRY POND - STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPT H (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
511	148.81	N/A	N/A	0.00	N/A	0.00
512	2,638.67	1.000	1393.59	1393.59	1137.80	1137.80
513	19,356.63	1.000	10897.10	12290.69	9713.54	10851.33
514	57,520.55	1.000	38438.09	50628.78	36747.67	47599.01
515	102,635.10	1.000	60227.82	130858.61	78951.09	126550.10
516	136,409.30	1.000	118972.20	249826.80	118591.88	245141.98
517	162,214.16	1.000	148811.73	398640.53	148610.14	393752.12
518	193,446.00	1.000	177830.08	576470.61	177601.09	571353.21
519	223,538.79	1.000	208492.39	784963.00	208311.18	779664.39
520	254,042.81	1.000	238790.80	1023753.80	238628.27	1018292.68
521	279,699.23	1.000	266371.02	1290124.82	266768.19	1285060.85
522	304,428.72	1.000	292080.97	1582588.80	291976.89	1577037.54
523	323,337.55	1.000	313883.14	1896571.94	313835.56	1890873.21
524	337,321.90	1.000	330329.73	2226901.67	330305.06	2221178.27

MAY BRANCH FLOOD MITIGATION - EAST POND - DRY

halff

Action No. SWL 2025-00239
Ft. Smith, Sebastian Co. AR
ACME Brick Quarry Site
Section: 22 Township: 8 N. Range: 32 W.