

REAL ESTATE PLAN

Arkansas River Navigation Study Phase II

**United States Army Corps of Engineers
Tulsa District
Real Estate Division**

Jun 17, 2005

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SECTION 1. INTRODUCTION

The preparation of this Real Estate Plan (REP) is in accordance with ER 405-1-12 and follows the general outline for feasibility reports. It addresses the real estate requirements, costs, and issues associated with the study of a proposal to increase the channel depth of the McClellan-Kerr Arkansas River Navigation System (MKARNS) from 9 feet to 12 feet. The scope of this report is limited to the MKARNS within the civil works boundary of the U.S. Army Corps of Engineers, Tulsa District. A separate REP prepared by Little Rock District covers MKARNS in the state of Arkansas.

Tulsa District implementation of this proposal will require a significant amount of dredging and the associated acquisition of lands for the construction, operation, maintenance, and environmental mitigation of new dredged material disposal areas.

This REP is for project acquisition planning purposes only. Government owned or privately owned lands and boundaries were not mapped or surveyed to the level of detail necessary for acquisition. Real Estate Division was asked to provide this information based on available information and a number of assumptions which include: ownership boundaries, acquisition lines, ownerships, tenancies, land use, land and damages values, and final locations for construction and access. Future economic fluctuations and project modifications will impact conclusions contained in this REP. These assumptions are subject to change as additional facts become known during the acquisition process.

SECTION 2. PROJECT AUTHORITY

The Rivers & Harbors Act of July 24, 1946, authorized the development of the Arkansas River and its tributaries for the purposes of navigation, flood control, hydropower, water supply, recreation, and fish and wildlife. The project, designated as the MKARNS by Public Law 91-629, was completed in 1971.

An FY99 Congressional Add authorized a study of the MKARNS in the Fort Smith, Arkansas area. The Arkansas River Basin Study Authority subsequently expanded the scope of this area to the entire 445-mile MKARNS in Arkansas and Oklahoma from the Mississippi River to the Port of Catoosa near Tulsa, Oklahoma. Section 136 of the Energy and Water Development Appropriations Act 2004¹ (117 STAT. 1842 PUBLIC LAW 108–137—DEC. 1, 2003) increased the MKARNS authorized project depth from 9-feet to 12-feet.

The scope of the overall study is the entire 445-mile MKARNS in Arkansas and Oklahoma from the Mississippi River to the Port of Catoosa near Tulsa, Oklahoma. This specific report is limited in scope to that portion of the MKARNS within the state of Oklahoma, which corresponds to the civil works boundary of the Tulsa District.

¹ Energy and Water Development Appropriations Act, 2004, SEC. 136. The McClellan-Kerr Arkansas River navigation project, authorized under the comprehensive plan for the Arkansas River Basin by section 3 of the Act entitled “An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes”, approved June 28, 1938 (52 Stat. 1218) and section 10 of the Flood Control Act of 1946 (60 Stat. 647) and where applicable the provisions of the River and Harbor Act of 1946 (60 Stat. 634) and modified by section 108 of the Energy and Water Development Appropriations Act, 1988 (101 Stat. 1329–112), is further modified to authorize a project depth of 12 feet.

SECTION 3. PROJECT DESCRIPTION AND PURPOSE

The U.S. Army Corps of Engineers' Civil Works mission, dating back to Federal laws enacted in 1824, includes providing for the national welfare by supporting and improving navigation. The current disparity between the 9-foot depth of the MKARNS and the 12-foot draft channel of the Lower Mississippi River creates operational inefficiencies, which adversely impact commercial navigation. Downbound tows loaded to accommodate the 9-foot MKARNS can't take advantage of the Mississippi River's greater depth and upbound tows must be reconfigured for the limited depth of the MKARNS.

This report provides the requisite real estate acquisition planning information regarding a proposal to increase the assured maximum depth of the channel of the Oklahoma portion of the MKARNS from the currently authorized 9-feet to a proposed depth of 12-feet. Due to ongoing maintenance dredging of the existing navigation channel and natural stream scour, approximately 80-90 percent of the entire system is already 12 feet deep over a portion of the channel width. Reaches with currently less than 12-foot depths are scattered along the length of the MKARNS. Implementation of this proposal would require additional dredged material disposal areas.

Most dredged material disposal sites previously constructed on the MKARNS are nearing capacity and additional sites are currently required to maintain the existing 9-foot channel. Implementation of the proposed 12-foot channel will only add to the requirement for additional dredge material disposal sites throughout the MKARNS. For the purposes of this analysis, 3 feet of advance maintenance dredging is assumed over the entire length of the system. Based upon this assumption, 54 new or

expanded dredged material disposal sites will be required within the Tulsa District to accommodate the existing and 12-foot channel dredging requirements.

Existing river maintenance structures, such as dikes and bank stabilization revetments can help direct the flow so that bottom scouring will occur in problem areas and reduce the need to dredge in those areas. In the future, construction of additional structures may be required within the navigation servitude to reduce maintenance dredging at some areas.

Proposed dredged material disposal sites have been located where possible to avoid adversely impacting biologically important riparian forest bottomland habitat areas. Unavoidable habitat impacts will be mitigated through the acquisition of approximately 230 acres of additional land to offset the loss.

The desired distance between dredged material disposal sites is approximately 1,500 feet based upon dredging limitations. From the locations of the dredging sites, the dredged material will be hydraulically transported via pipeline to the disposal sites. The dredged material disposal sites range in size from 5 acres to 100 acres. Most of the pit shapes are rectangular and many are configured to fit within the Government boundary where possible. Specific locations would be modified to facilitate acquisition negotiations, avoid facilities or utilities and other potential damages risks, and minimize adverse impacts to private landowners.

SECTION 4. REQUIRED LAND, EASEMENTS RIGHTS-OF-WAY, RELOCATIONS, AND DREDGED MATERIAL DISPOSAL AREAS (LERRD)

All of the dredging required to implement this project will occur within the area of navigation servitude -- a right reserved in the Commerce Clause of the U.S. Constitution. Navigation servitude includes the bed and banks of navigation channel within the lateral extent of the ordinary high water mark. Consistent with the purposes of this project, navigation servitude is only available for the aid of commerce. It is the policy of the U.S. Army Corps of Engineers to utilize the navigation servitude in all situations where available.

“Navigable Waters of the United States” and related navigation servitude is defined at 33 C.F.R. Part 329. This regulation provides the criteria for determining the geographic and jurisdictional limits of the navigable waters and is applicable throughout the entire MKARNS. It reads as follows:

“(a) *Jurisdiction over entire bed.* Federal regulatory jurisdiction, and powers of improvement for navigation, extend laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark.

Jurisdiction thus extends to the edge (as determined above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation or other barriers. Marshlands and similar areas are thus considered navigable in law, but only so far as the area is subject to inundation by the ordinary high waters.

(1) The “ordinary high water mark” on non-tidal rivers is the line on the shore established by the fluctuations of water and indicated by

physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.”

The determination of the ordinary high water mark is site specific and must be determined from a physical inspection of the site or sites in question. It should be readily ascertainable and would be universal throughout the system.

In addition to the dredging areas throughout the system subject to navigation servitude, a total of approximately 1,563 acres of land would be required for access, construction, and operation of the proposed dredged material disposal areas. The United States of America owns approximately 961 acres of the total land requirement. These lands were acquired for the construction, operation, and maintenance of the MKARNS.

Outside of the navigation servitude, private landowners own approximately 602 acres of the land requirement for this proposed project. Of this total acreage, approximately 285 acres would be required to contain proposed dredged material disposal areas, staging and work areas (to be located within the footprint of the disposal area), and related areas including drain pipes, headwall and riprap features. An additional 87 acres of rights-of-way would be required between public roads and the dredged material disposal sites. 230 acres of privately owned land would be required to mitigate the fish and wildlife habitat adversely impacted by this project.

The locations of the proposed dredged material disposal sites are generic and are not at this time absolutely fixed. Each is relative to known or

presumed silt deposition areas requiring dredging to meet the new depth standards. Each disposal site will be modified in shape and location as local conditions warrant. A survey will be required for each potential site to assure that the minimum number of ownerships is involved.

Additionally, private landowners attitudes will be taken into consideration to the maximum extent practicable prior to establishing final locations.

Federally owned lands will be used for the dredged material disposal areas and access roads to the maximum extent possible.

Where the proposed dredged material disposal site is subject to a Federal flowage easement for a reservoir, the additional interest of the fee estate would be required from the underlying owner.

SECTION 5. ESTATES REQUIRED

All estates required are “standard estates” in accordance with the Corps of Engineers, Real Estate Handbook.

Estate for Dredged Material Disposal and Mitigation Sites: The appropriate estate for the permanent dredged material disposal sites and mitigation sites is the standard estate of fee excluding minerals.

FEE EXCLUDING MINERALS (With Restriction on Use of the Surface). The fee, simple title to the land described in Schedule A Tracts No(s). _____, _____ and _____, subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines; excepting and excluding from the taking all coal, oil and gas, in and under said land and all appurtenant rights for the exploration, development, production and removal of said coal, oil and gas, but without the right to enter upon or over the surface of said land for the purpose of drilling and extracting therefrom said coal, oil and gas.

Estate for Access: For right-of-way access across private lands from the nearest public road to the dredged material disposal sites, the appropriate estate is the standard estate of perpetual joint use road easement estate.

ROAD EASEMENT ESTATE: A perpetual and assignable easement and right-of-way in, on, over and across the land described in Schedule A, Tracts No(s). _____, _____ and _____ for the location, construction, operation, maintenance, alteration and replacement of a road and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees,

underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

SECTION 6. FACILITY AND UTILITY RELOCATIONS

The term "relocation" shall mean providing a functionally equivalent facility to the owner of an existing utility, cemetery, highway, railroad (including any bridge thereof), or public facility when such action is authorized in accordance with applicable legal principles of just compensation or providing a functionally equivalent facility when such action is specifically provided for, and is identified as a relocation, in the authorizing legislation for the Project or any report referenced therein. Providing a functionally equivalent facility may consist of the alteration, lowering, raising, or replacement of the affected facility or part thereof.

It is unlikely that the construction and use of new dredged material disposal sites will affect any facilities or utilities. Where such improvements are discovered and the owner is determined to have a compensable interest, a decision will be required by the Government by balancing the estimated cost of required relocations against opportunities for avoiding them by modifying the location or shape of the subject dredged material disposal site. Where dredging associated with the channel deepening project require the movement of a facility or utility onto private land, an interest in that land must be acquired. The cost of this acquisition is captured for purposes of this report as a contingency element.

Utilities and facilities under the bed of the MKARNS were typically buried deep enough or were relocated during project construction to avoid foreseeable potential navigation and dredging impacts. Additionally, where such structures are impacted, navigation servitude and Section 10 of the River and Harbor Act of 1899, may require relocation of facilities and utilities at the expense of the owner. In all cases, where such utilities

or facilities are discovered, an Attorney's Opinion of Compensability is the decision document to determine whether they will be moved at the expense of the U.S. Government.

SECTION 7. RELOCATION ASSISTANCE FOR DISPLACED RESIDENTS, BUSINESSES AND FARMS.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq.) and implementing regulations provide a process for ensuring that “persons displaced as a direct result of Federal or federally-assisted projects are treated fairly, consistently, and equitably so that such displaced persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole”

A determination of eligibility for relocation assistance is site and fact specific. Where a residence, business, or farming operation is displaced by a Federal project, the owners are generally entitled to additional compensation. Our initial investigations indicated that the new or expanded dredge disposal sites would not affect any residences. Additionally, any land acquired for habitat mitigation purposes would similarly avoid affecting any residences.

With respect to relocation assistance for farming operations, inadequate information was available to determine the specific number of owner or tenant farm operations entitled to such assistance. For purposes of this report, it is assumed that 5 farm operations will be displaced at a potential cost of approximately \$20,000 each.

SECTION 8. LANDOWNER SUPPORT AND OPPOSITION AND RELATIVE RISK OF CONDEMNATION

A Notice of Intent to prepare an Environmental Impact Statement for this proposal was published in the Federal Register on May 31, 2002. Public Scoping Meetings were held in Tulsa, Fort Smith, Pine Bluff, and Little Rock. The majority of comments received are related to flooding impacts. Additional concerns included impacts to the Interior Least Tern, hydropower, and locations and volume of dredged material disposal. Comments received from navigation interests supported the 12-foot channel depth.

This proposal would disproportionately impact landowners where the dredged material disposal areas and access roads are to be located. These impacts can be mitigated to some extent where the landowners' interests are adequately taken into consideration when making the final site location determinations. No specific information has been received to date to indicate that the risk of condemnation is higher than is normally expected. Condemnation is available where negotiations are unsuccessful or were required to cure title problems. It is assumed for this report that 3 of the ownerships will require condemnation.

SECTION 9. OUTSTANDING INTEREST AND RESERVATIONS

Surface owners, mineral owners, and interest holders will retain their mineral interests. Private fee owners will retain their use of Federally acquired rights-of-way easements.

Surface owners, mineral owners, and interest holders will retain their mineral interests subject to the development restrictions contained in the estate. Private fee owners will retain their joint use of Federally acquired rights-of-way easements.

SECTION 10. STATUS OF HAZARDOUS AND TOXIC RADIOLOGICAL WASTE (HTRW) INVESTIGATION

All sites to be acquired are rural farmland or pasture land with a low risk of land uses resulting in HTRW contamination as defined in the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. §9601 et seq., (CERCLA); other Federal statutes [e.g., the Resource Conservation and Recovery Act, as amended, 42 U.S.C. §6921 et seq.(RCRA)]; or specified state law.

Phase I HTRW investigations have been completed for the dredged material disposal sites and the findings will be filed in the SWT permanent real estate records. Additional investigations would only occur if construction activities uncovered evidence of further contamination.

A Phase I survey of potential sediments has been conducted for representative portions of the MKARNS system as part of the related environmental study. During this survey, no HTRW contaminants exceeding CERCLA reportable quantities were identified.

During construction, the dredged material will be tested in accordance with applicable standards as part of the ongoing environmental monitoring for this proposed project. Though remotely possible, where regulated quantities of HTRW contamination are discovered on required lands, the acquisition site would be relocated to an adjacent area determined to be free from such contamination. In the alternative, the private landowner would be required to complete a cleanup or response action of regulated material prior to our acquisition.

SECTION 11. INDUCED FLOODING

Implementation of this project, given the limited area of the disposal sites, would not be expected to have a measurable impact on flooding.

SECTION 12. MINERAL ACTIVITY and TIMBER HARVESTING IMPACTS

Some of the areas impacted by this proposed project are in a region of Oklahoma subject to coal, oil, and gas development and production in the past century. While most of these oil and gas fields were largely depleted, some are subject to secondary production methods where economically feasible. Additional production in the region would be expected if the market significantly improves. The greater depth and wider spacing of wells makes the potential requirement for the use of the relatively small areas used for dredged material disposal areas significantly low.

Merchantable quantities of coal deposits are located near the surface in eastern Oklahoma. The normal production method for extracting these minerals is by a process known as “strip-mining” – a process where the overlying soil and rocks are removed and the coal extracted. The overlying materials are then replaced in accordance with Federal and State mining regulations. The current market for this coal is reduced due to its relatively high sulfur content.

The cost of acquisition or subordination of minerals is considerably greater and more time consuming than surface acquisitions. Frequently, mineral interests are fractionalized among numerous and often indeterminate owners; therefore, condemnation actions are commonly required. And finally, under Oklahoma Corporation Commission pooling regulations, a single-spaced well site would be developed to produce minerals over a large area – generally a section or quarter section in surface area. Consequently, the potential for conflicting oil and gas development at the project site is extremely remote.

We recommend acquiring a fee estate, less and except third party outstanding mineral interests, based on the following: minimal impact on potential mineral production or development; a limited surface area impacted by the project; the excessive cost of ownership research, mineral appraisals, and negotiation efforts; and the relatively high requirement for condemnation to quiet title the numerous and indeterminate fractionalized interests.

Based on site inspections, no commercially marketable timber was observed within the acquisition area.

SECTION 13. DEMOLITION, REMOVAL, OR MODIFICATION OF IMPROVEMENTS

The demolition, removal, or modification of improvements is expected to be limited to locations where fences or gates are impacted, where access is required from public roads into the sites for initial site construction and future maintenance. To reduce costs and negotiation challenges, proposed dredged material disposal site and access ways have been relocated where possible to avoid damaging or otherwise impacting valuable private improvements. Owners and their tenants will be compensated as part of payment for lands and damages where growing crops or other personal property and real estate improvements such as fences, gates, roads, fields, etc., are adversely impacted to the extent they enhance the fair market value of the property as a whole..

SECTION 14. OTHER REAL ESTATE ISSUES POTENTIALLY IMPACTING THIS PROPOSAL

Some of the Government-owned land impacted by this proposal is leased to private tenants for a variety of purposes predominantly including agricultural and grazing operations. Where a dredged material disposal site is to be located on land occupied by a tenant, the lease or a portion thereof, may be revoked according to the terms of the agreement.

Dependent upon the construction schedule, leases should not be renewed for a term which will require the Government to compensate the lessee. In the event that revocation or modification of the lease will be necessary, every consideration will be given to avoid an uncompensated taking of the lessee's personal property. For an agricultural lease, the lessee may be allowed to remove crops, if possible. In the event a lessee will be required to vacate all or a portion of the leased area without harvesting crops, the lessee may be compensated for the loss in accordance with the terms of the lease.

The Department of the Interior, U.S. Fish and Wildlife Service operates the Sequoyah National Wildlife Refuge on the Robert S. Kerr Lock and Dam and Project under a Cooperative Agreement with the Corps of Engineers. Impacts to the refuge resulting from this proposed project will require a negotiated modification to the Cooperative Agreement.

SECTION 15. ESTIMATED LAND VALUES

The initial field work for the gross appraisal supporting this study was conducted in February 2004. The field work was subsequently updated as changes in locations and site acreages were received. The effective date of the valuation contained in this report and the cutoff date for considering site and acreage changes is July 7, 2004.

None of the proposed dredge pits occupied an entire ownership. In the cropland fields, the dredge pit would adversely impact farm operations requiring the operator to work around the pit located within his crop field. This impact is assessed in a severance damage value.

On a few of the ownerships, there will be so little land left in the ownership or functional unit area of the ownership that the remaining land loses its economic utility and must be acquired or paid for as an uneconomic remnant.

Land values are based upon the dredged material disposal area alignments and rights-of-way access determined as of June 28, 2004. Subsequent modifications to locations and sizes will be expected to impact the final land and damages values.

The total amount of private land required for this proposed project for dredged material disposal areas and right-of-way access from public roads is estimated to total approximately 372 acres. This acreage is owned by approximately 37 private landowners and an assumed number of 5 farming tenants. Additionally, approximately 376 acres of privately-owned land have been identified for acquisition for environmental mitigation. This mitigation land may involve approximately 3 owners.

The estimated total value of private land required for the dredged material disposal sites and access is \$694,800. The estimated value of additional private land required for mitigation is \$732,400. Values are elevated by a higher than usual contingency due to the fact that the dredge pits and access roads will be located within a portion of an entire ownership. This requires farmers to cultivate and operate around a disposal site located within their fields and thereby create a continuing significant severance damage impact.

SECTION 16. ESTIMATED ADMINISTRATIVE, CONTRACT, AND INCIDENTAL ACQUISITION COSTS

Implementation of the proposal would require land from approximately 40 private landowners and an assumed number of 5 private farm tenants. For purposes of this report, it is assumed that ½ of the private ownerships are leased for agricultural or grazing purposes. In addition to the private ownerships, the U.S. Government property managed by the Corps of Engineers is also affected. Much of these Federal lands are outgranted to tenants for agricultural and grazing operations, or for fish and wildlife mitigation purposes. The estimated cost of modifying an existing agricultural and grazing lease is \$1,650. It is assumed that 15 tracts of lands required for the dredged disposal sites on Federal land are outgranted to private parties. These leases are normally granted for a term of 5 years. If the tenant keeps the lease, damage payments would be required to compensate the tenant for losses resulting from the dredged material disposal sites within the leased lands. If the lease is terminated, the owner would be entitled to reimbursement of his rent paid and damages for early termination. In either case, the lease modification would need to be negotiated with the tenant. The estimated cost of modifying the Sequoyah Wildlife Refuge Cooperative Agreement with the Department of the Interior is \$5,000.

In several dredge pit locations, access can be obtained as a construction cost via an existing public right-of-way that has been functionally abandoned. While this will avoid acquiring a new right-of-way across private land, it would require coordination with and approval by the applicable Board of County Commissioners.

The estimated total administrative labor cost for acquisition of all required surface interests from the 40 private landowners and their 5 tenants is approximately \$784,875. The table in Section 17 lists the various administrative labor and contract costs, which include: surveying and monumentation, mapping, title, negotiations, relocation advisory services, document preparation, staffing, closing, and condemnation.

SECTION 17. TOTAL TULSA DISTRICT REAL ESTATE ACQUISITION COST ESTIMATE

The total estimated cost for acquisition of all required interests in private lands to accomplish this proposed project contained in the following table. The estimated cost for the preparation of this REP is \$20,200.

SWT BASELINE COST ESTIMATE FOR REAL ESTATE ARKANSAS RIVER NAVIGATION STUDY – PHASE II				
ACCOUNT	DESCRIPTION	ESTIMATE	CONTINGENCY	TOTAL
1	Lands & Damages			
01.23.03.02	Real Estate Acquisition Documents			
	Acquisition & Negotiations	\$400,000	\$120,000	\$520,000
	Lease Modifications	\$29,750	\$8,925	\$38,675
	Title	\$120,000	\$36,000	\$156,000
	Surveys	\$270,000	\$81,000	\$351,000
	Review	\$60,000	\$18,000	\$78,000
	SUBTOTAL:	\$879,750	\$263,925	\$1,143,675
01.23.03.03	Real Estate Condemnation Documents			
	Condemnations	\$30,000	\$9,000	\$39,000
	Review	\$6,000	\$1,800	\$7,800
	SUBTOTAL:	\$36,000	\$10,800	\$46,800
01.23.03.05	Real Estate Appraisal Documents			
	Appraisals	\$260,000	\$78,000	\$338,000
	Review	\$60,000	\$18,000	\$78,000
	SUBTOTAL:	\$320,000	\$96,000	\$416,000
01.23.03.06	Real Estate PL 91-646 Asst. Documents			
	PL 91-646 Asst.	\$21,000	\$6,300	\$27,300
	Review	\$8,000	\$2,400	\$10,400
	SUBTOTAL:	\$29,000	\$8,700	\$37,700
01.23.03.15	Real Estate Payment Documents			
	Payments (Land & Damages))	\$1,427,200		\$1,427,200
	Payments (PL 91-646 Asst.)	\$100,000	\$30,000	\$130,000
	Review	\$10,000	\$3,000	\$13,000
	SUBTOTAL:	\$1,544,780	\$33,000	\$1,570,780
	TOTAL	\$2,801,950	\$412,425	\$3,214,375

SECTION 18. SCHEDULE OF LAND ACQUISITION

Given the number of ownerships and the nature of adverse impact to landowners, land acquisition is expected to take a minimum of 2 years from the receipt of funding, as displayed in the Federal Acquisition Real Estate Schedule below. General elements contributing to acquisition timelines are landowner attitude, funding, and title issues.

Upon the receipt of project funding, rights-of-entry will be obtained from all willing landowners for staking and surveying the proposed dredged material disposal areas and access roads. Where the landowners refuse to permit access, condemnation will be required to force access. Prior to final location and dimension surveys, local factors including ownership boundaries and landowner input will be taken into consideration and appropriate modifications made. The surveys will provide data required to prepare legal descriptions. The legal descriptions of the various tracts will be furnished to contract title and abstract companies for determination of title information. Upon receipt of the title information, all known landowners will be contacted and acquisition negotiations will be initiated.

Where defects are identified in the chain of title, significant time and effort may be required for curative actions including but not limited to forced probate or condemnation to identify and provide legal notice to all owners. Where condemnation is required to cure title issues, or where negotiations are not successful, or where the owner or owners are either indeterminable or unknown, additional time would be required after all negotiation efforts fail. Under “quick take” condemnation authority, which is available under the laws of the State of Oklahoma, title passes upon filing and payment of the Government determined fair market value to the court for the landowner. It is our experience that it can take up to six

months from the time the DT transmittal leaves the District before a condemnation case can be filed and title passes to the United States of America even using “quick take” authority. A Declaration of Taking file will be prepared and forwarded through appropriate channels to the Justice Department for each condemnation.

Real Estate Plan Prepared

By: _____
Bernard R. Gardner III, J.D.
Lead Realty Specialist
(date) _____

Real Estate Plan Technical Review

By: _____
(date) _____

Table Listing Information & Value for Dredge Disposal Pits and Access							
Dredge Pit No.	POOL	RIVER MILE	General Location	No. of Pit Acres Privately Owned	Access		Owners
0	13	309.05 –309.3	River Mile 309.05 –309.3. Le Flore County – south side of Arkansas River in the river bottom just west of Ft. Smith, Arkansas. Bottom cropland area.	28	Private -existing road & will need new additional area for 20.52 acs.		3
1	13	Poteau River Mile 1.5 -1.8	Le Flore County – this pit is located approximately .7 miles south of Pit No. 0. This pit is located adjacent to the west side of the Poteau River	9	Private. Use of the private access for Pit No. 0 plus 1.82 acs. For new road		1
1A.	13	312.5 – 312.9	Le Flore County – Approximately 3 miles west of the town of Ft. Smith, Arkansas. The pit is located on the east side of the Arkansas River.	0	Government & Private – 12.18 acs.		1
2	13	315.4 -315.8	Le Flore County – south side of Arkansas River approx. 3 ½ miles southwest of Ft. Smith. Arkansas River bottom cropland area	0	Public & Private. Private = 0.96 acs.		1

3	13	318.6 -319.1	Sequoyah County – north side of Arkansas River approx. ¼ mile east of W.D. Mayo L&D No. 14	0	Public & across Government land		
4A.	13	River Mile 334.3 – 334.6.	LeFlore County – south side of Arkansas River approx. 1 ½ miles downstream of the Robert S. Kerr Lock and Dam.	5	Open up section line and then private = 2.48 acs.		1
4	14	335.8 - 336.1	Sequoyah County – north side of Arkansas River. Just below the Robert S. Kerr Dam. Between the dam and Hwy 59.	0	Public & across Government land		
Alt. 4	15	335.8 – 336.1	LeFlore County – south side of Arkansas River. Adjacent to the downstream side of the Robert S. Kerr L & D.	0	Public & across Government land		
5	15	River Mile 336.3 - 336.4.	Sequoyah County – north side of Arkansas River. Just upstream of the dam.	0	Public & across Government land		
19	15	River Mile 336.5 – 336.6	Le Flore County – adjacent to the upstream side of the Robert S. Kerr Dam on the south side of the Arkansas River.	0	Government		
Alt. 20	15	River Mile 337.1 – 337.4		0	Government		
20	15	River Mile 338.0 – 338.2		28	Private		1

6	15	River Mile 342.1 -342.3.	Sequoyah County – 1 mile north of Arkansas River along Sallisaw Creek. Northeast of Sallisaw Creek. Approximately 5 miles northwest of the Kerr Dam. Alternate Channel River Mile 4.0 thru San Bois Creek River Mile 1.0	11	Public & private, Private = .14 acs.		1
24 SBC.	15	Alternate channel RM 4.0 thru San Bois Cr RM 1.0	Haskell County – north of San Bois Creek and west of the Arkansas River. Approximately 6 miles west of the Kerr Dam	0	Public & Government		
25	15	San Bois Creek, River Mile 4.2 – 5.3	Haskell County. Approximately 3 miles north northwest of the town of Keota.	0	Public & Government		
41	15	San Bois Creek – River Mile 6.2 – 6.6	Haskell County. Approx. 2 miles northwest of the town of Keota.	0	Government		
42	15	San Bois Creek, River Mile 6.8 - 7.15	Haskell County. Approx. 2 miles northwest of the town of Keota	0	Government		
7	15	River Mile 345.2-345.3	Sequoyah County – just north of the Arkansas River. Approximately 7 miles northwest of the Kerr Dam	48	Private 1.79 acs.		2
8	15	River Mile 348.3 – 348.75	Sequoyah County – Approximately 10 miles northwest of Kerr Dam out in the water. Access will be via water.	0	Government		

18	15	River Mile 353.7.– 354.3	East side of the Arkansas River, Sequoyah County – approximately 4 miles southwest of the town of Vian.	0	Government		
18Z.	15	River Mile 361.9 – 362.1	West side of the Arkansas River, Muskogee County – Approx. ½ mile downstream of the Webbers Falls L&D. 1 ½ mile southeast of the town of Webbers Falls.	14	Private – 2.34 acs.		2
22	15	River Mile 365.9 – 366.05	West side of the Arkansas River, Muskogee County – Approx. ½ mile downstream of the Webbers Falls L&D.	6	Open up section line to Government land		1
21	15	River Mile 366.3 – 366.6	Muskogee County – east side of the Arkansas River approximately ¼ mile downstream of the dam.	0	Government		
9	16	River Mile 367.2-367.6.	Muskogee County – ½ mile upstream of the Webber Falls L & D. East side of the Arkansas River.	0	Government		
10	16	River Mile 375.0 – 375.4.	Muskogee County – approx. 6 miles southeast of the southeast edge of the town of Muskogee. This pit is located on the east side of the Arkansas River.	0	Open section line up - then Government		
11	16	River Mile 379.1 – 379.4.	Muskogee County – approx. 2 ½ miles east of the southeast edge of the town of Muskogee. This pit is located in an oxbow on the east side of the Arkansas River.	0	Government		

12	16	River Mile 382 – 382.4.	Muskogee County – approx. 4 miles east of the southeast edge of the town of Muskogee. This pit is located on the east side of the Arkansas River.	16	Open section line up – then Government		1
13	16	River Mile 383.9 – 384.3.	Muskogee County – approx. 5 miles east of the east side of the town of Muskogee. This pit is located on the west side of the Arkansas River.	0	Government		
14	16	River Mile 389.7 – 390.1.	Muskogee County – Approx. 1 ½ mile east of the east side of the town of Muskogee. The pit is located on the east side of the Arkansas River	0	Government		
15	16	River Mile 393.7 – 394.1.	Muskogee County – Approx. 2 miles northeast of the northeast edge of the town of Muskogee. The pit is located on the east side of the Arkansas River	0	Government		
16	16	River Mile 392.8 - 394.0	Muskogee County – Approx. 3 ½ miles northeast of the northeast edge of the town of Muskogee. This pit is located in the “Three Forks Area” just north of the point where Grand River empties into the Arkansas River	27	Public Road		1

24	16	River Mile 396.55 – 396.75	Wagoner County – east side of the Verdigris River. Approximately 2 ½ miles north of the northeast corner of the town of Muskogee	0	Open Section line up and Private – 1.24 acs.		1
27	16	River Mile 398.2 – 398.8	Wagoner County – west side of the Verdigris River. Approximately 4 ½ miles north of the northeast corner of the town of Muskogee	0	Private – 4.4 acs. to Government land		1
28	16	River Mile 400.7 – 401.5	Wagoner County – west side of the Verdigris River. Approximately ¼ mile downstream of the Chouteau Lock & Dam No. 17.	0	Public to Government		
29	17	River Mile 401.5 – 402.2	Wagoner County – west side of the Verdigris River. Just above Chouteau Lock & Dam No. 17.	0	Public & Government		
30	17	River Mile 407.6 – 407.8	Wagoner County – south side of the Verdigris River. Approximately 4 miles southwest of the town of Wagoner.	0	Private - 0.96 acs. & Government		1

31b.	17	River Mile 414.2 – 414.4	Wagoner County – west side of the Verdigris River. Approximately 7 miles west northwest of the town of Wagoner.	9	Private – 4.13 acs.		1
31a.	17	River Mile 414.9 – 415.15	Wagoner County – west side of Verdigris River. Approximately 7 miles west northwest of the town of Wagoner.	0	Private – 3.3 acs.		1
32	17	River Mile 416.4 – 416.65	Wagoner County – west side of Verdigris River. Approximately 9 miles northwest of the town of Wagoner	0	Private – 4.82 acs.		1
33	17	River Mile 418.5 – 418.8	Wagoner County – Approximately 9 miles northwest of the town of Wagoner	23	Private & use of unopened section line road. 3.44 acs.		2
34	17	River Mile 421.3 – 421.7	Wagoner County – just below the downstream of the Newt Graham Lock & Dam No. 18. West side of the Verdigris River	0	Public & Government		
35	18	River Mile 421.8 – 422.0	Wagoner County – 1/8 mile upstream of the Newt Graham Lock & Dam No. 18. East side of the Verdigris River	0	Public & Government		

36	18	River Mile 429.2 – 429.4	Rogers County – Approximately 5½ miles west southwest of the town of Inola. West side of the Verdigris River	10	Public		1
37	18	River Mile 429.5 – 429.7	Rogers County – Approximately 5½ miles west southwest of the town of Inola. West side of the Verdigris River	14	Public		1
38	18	River Mile 434.0 – 434.8	Rogers County – Approximately 6 miles northwest of the town of Inola. West side of the Verdigris River.	10	Private –21.81 acs.		8
39	18	River Mile 436.1 – 436.3	Rogers County – Approximately 7 miles northwest of the town of Inola. East side of the Verdigris River.	0	Private & unopened county line – 0.68 acs.		2
40	18	River Mile 441.0 – 441.5	Rogers County – Approximately 3 miles southeast of the Port of Catoosa. North side of the Verdigris River.	0	Public & Government		

41	18	River Mile 443.7 – 444.0	Rogers County – Approximately 1 mile downstream or southeast of the Port of Catoosa. East side of the Verdigris River.	27	Public		1
			Total Values	285			37

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Figure 1--Dredge Site 0



Figure 2--Government ownership site 0

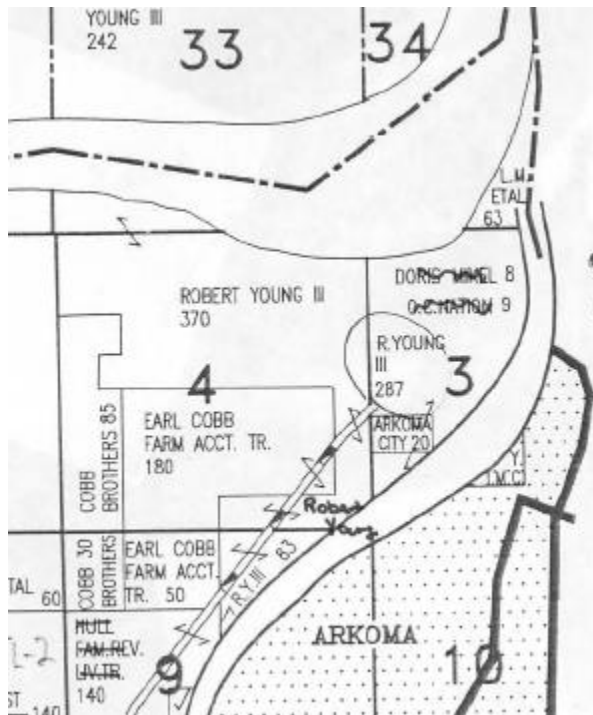


Figure 3--Private ownership site 0

This Figure shows the relative location of dredge disposal site no. 0 (highlighted in yellow) relative to the Arkansas River alignment as it existed at the time of the original 1889 survey labeled "Original Meanders" (purple line) and the banks of the River at the time of construction of the MKARNS, labeled "Present Meanders" (orange line).

Site no. 0 appears to be located within the historical banks of the river, notwithstanding, slight deviations due to the relative accuracy of the data.



Figure 4--Dredge Site 1

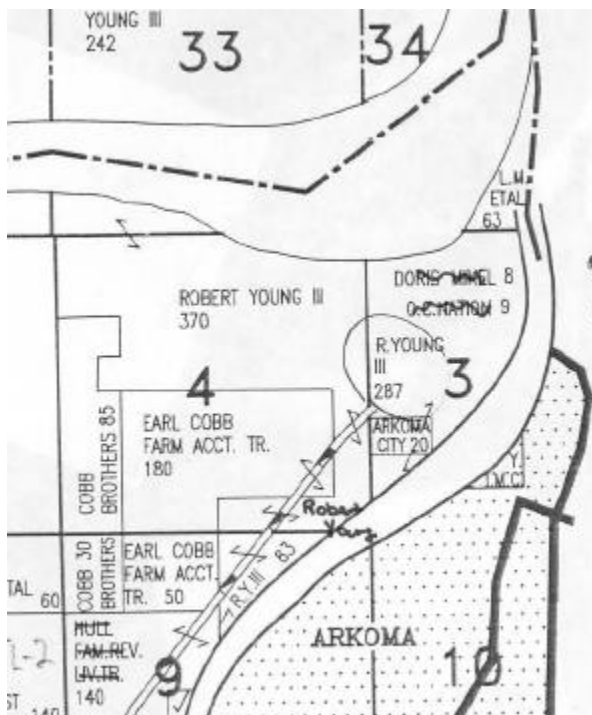


Figure 5--Private ownership site 1

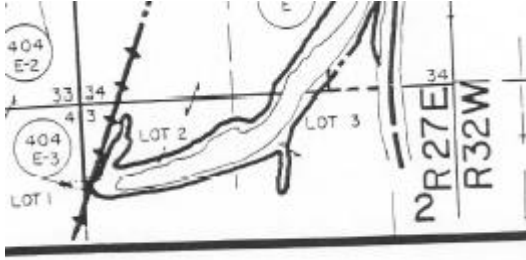


Figure 6--Government ownership site 1

Note: the Government segment maps end before this location so there is no Government lands involved on this site.

This Figure shows the relative location of dredge disposal site no. 1 (highlighted in yellow) in the lower righthand edge of the image. It is adjacent to the Poteau River immediately west of the City of Fort Smith, Arkansas.

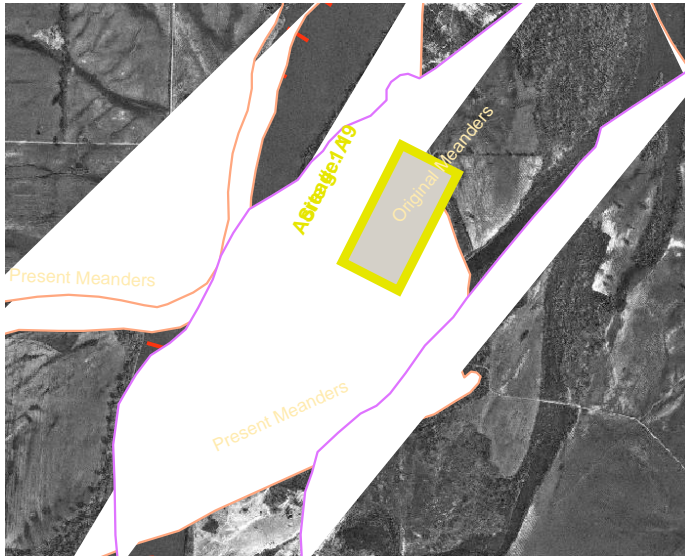


Figure 7--Site 1A



Figure 8--Private ownership site 1a

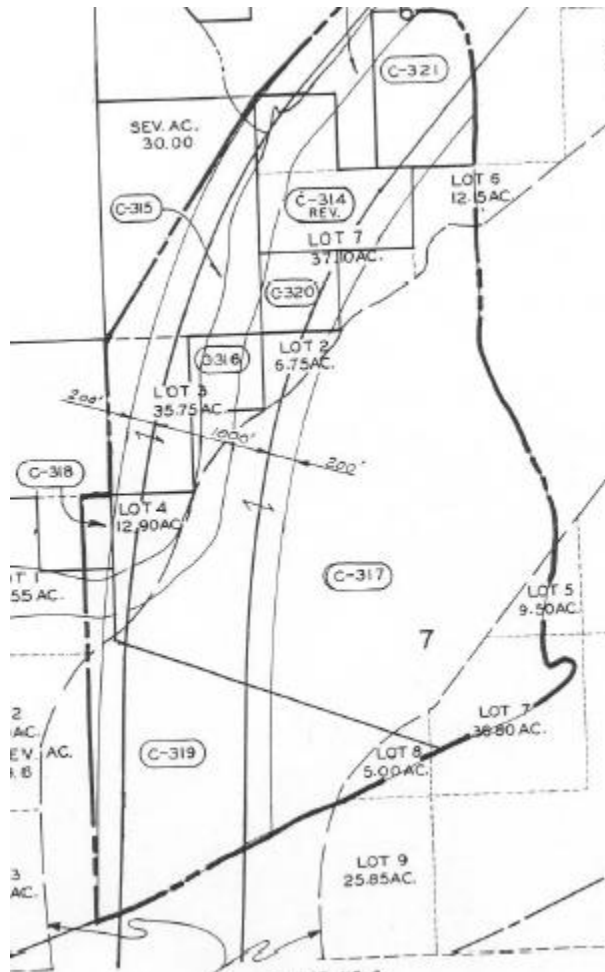


Figure 9--Government ownership site 1a

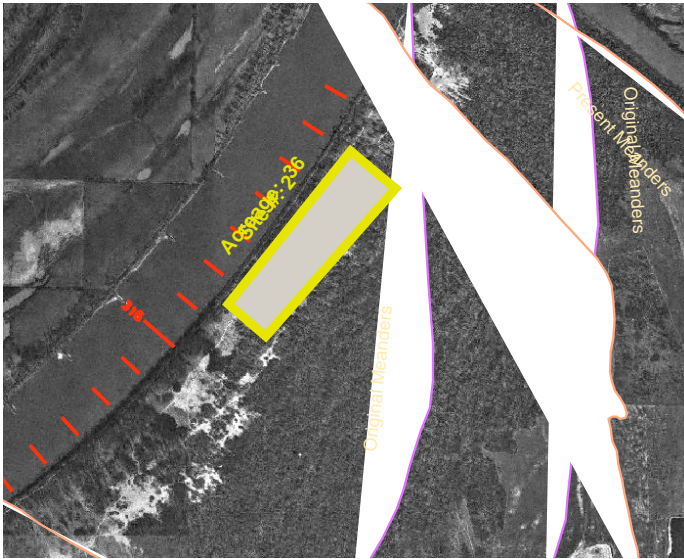


Figure 10--Site 2

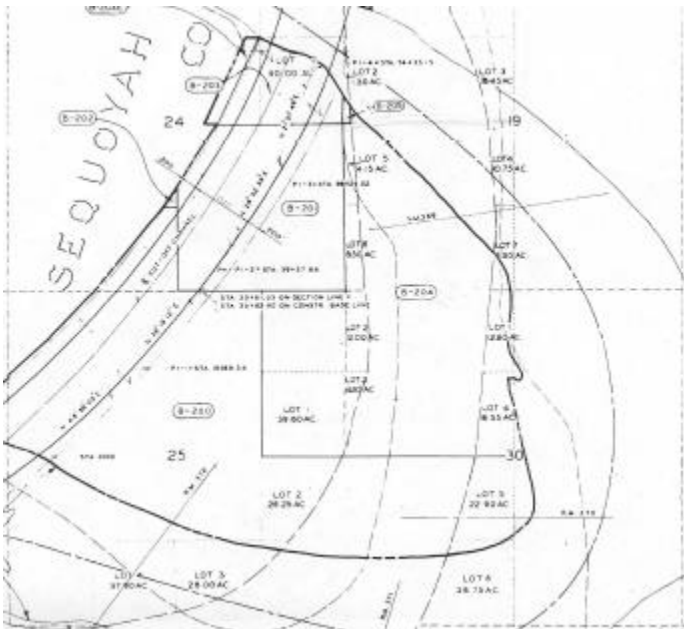


Figure 11--Government ownership site 2

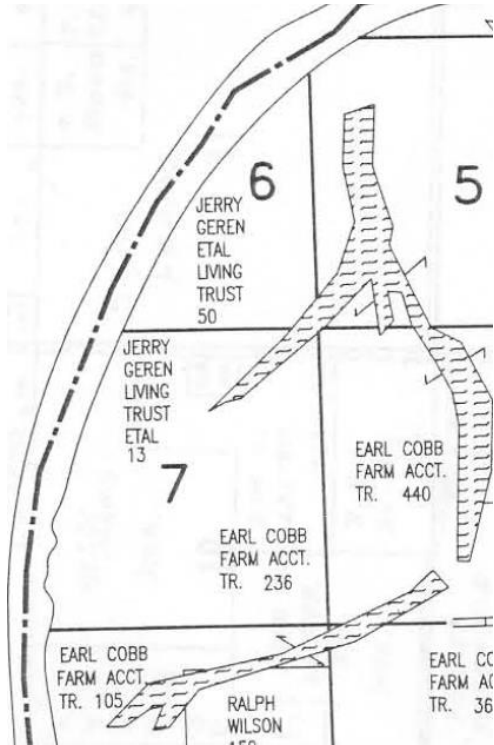


Figure 12--Private ownership site 2

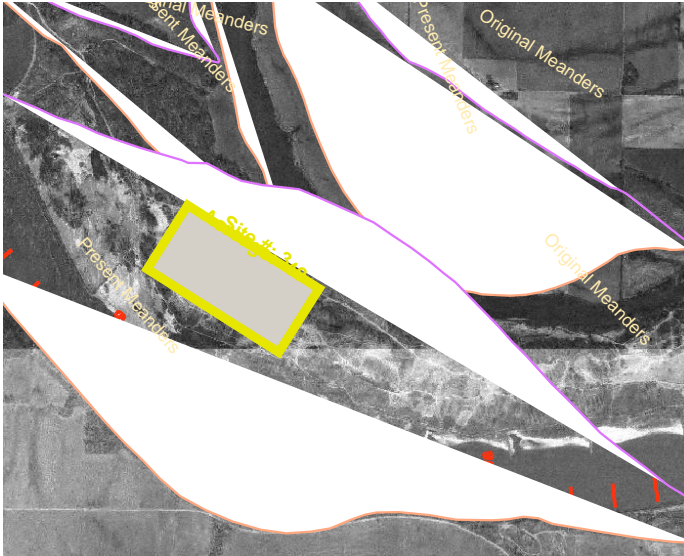


Figure 13--Site 3

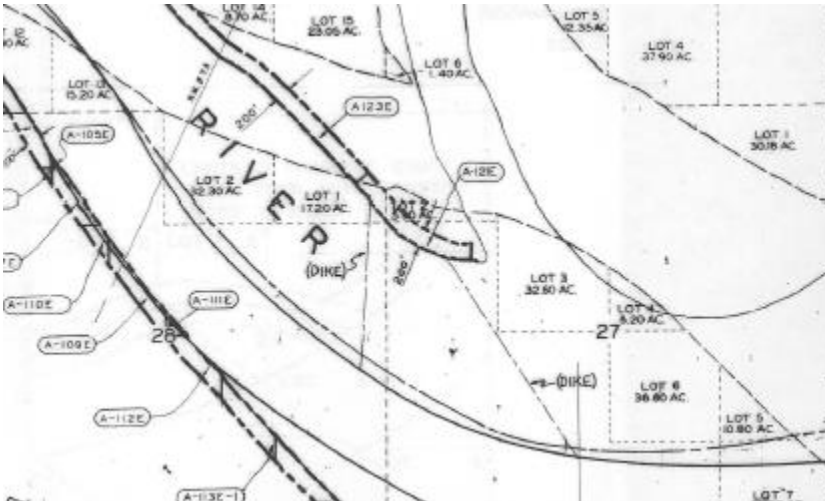


Figure 14--Government ownership site 3 according to bank stabilization records

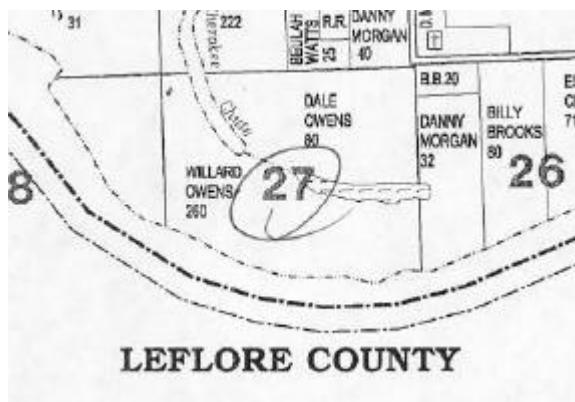
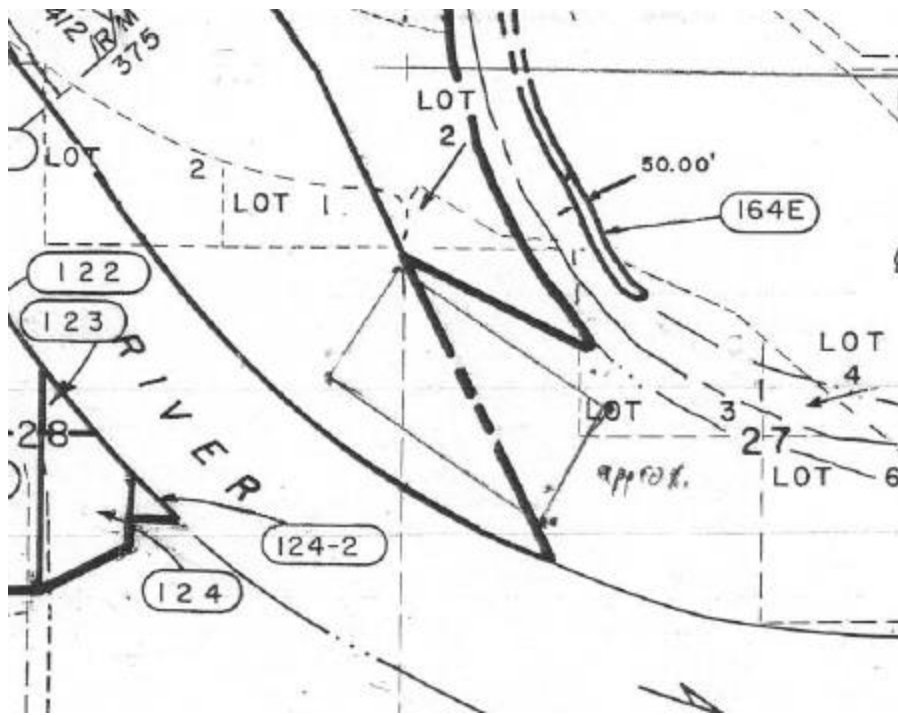




Figure 17--Site 4, Alt 4, 5 and 19

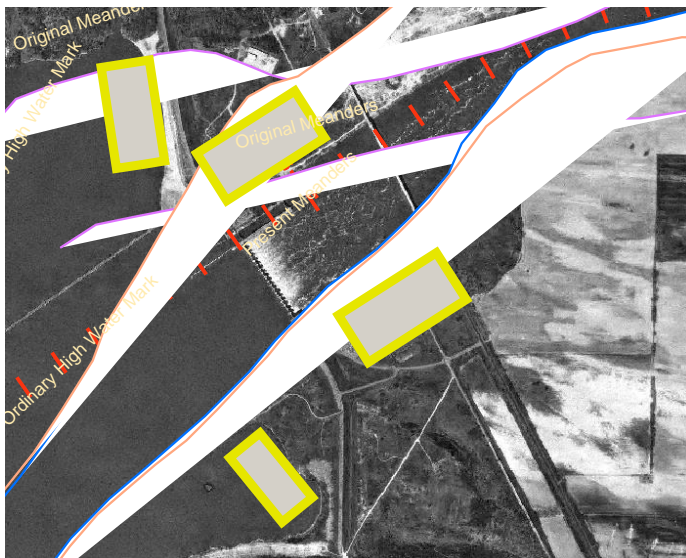
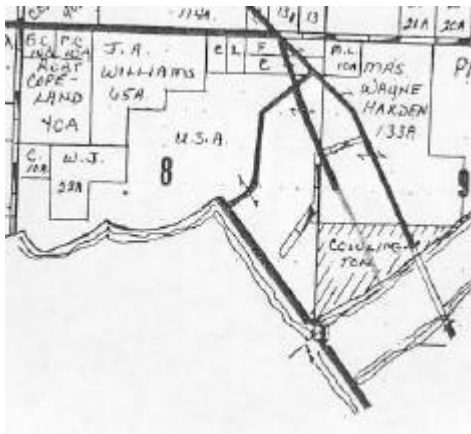
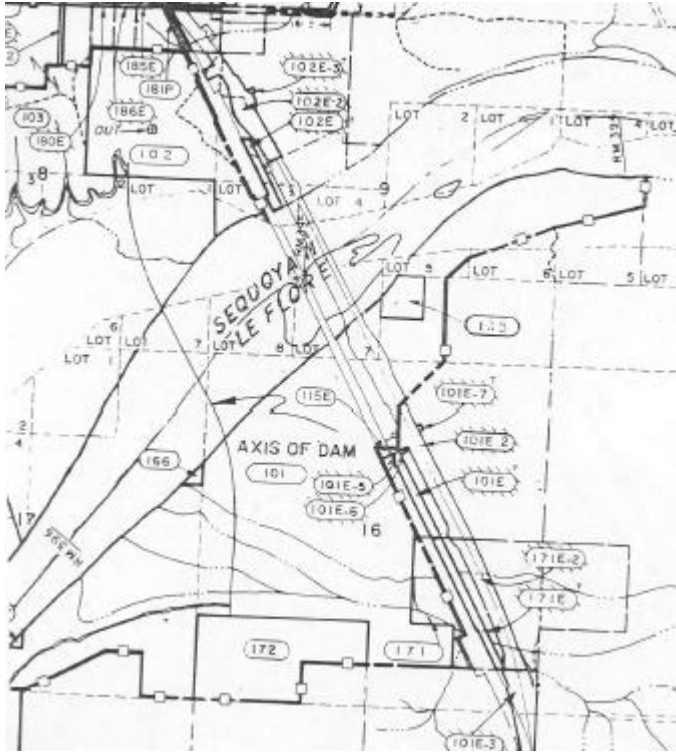


Figure 18--Site 4, Alt 4, 5 and 19



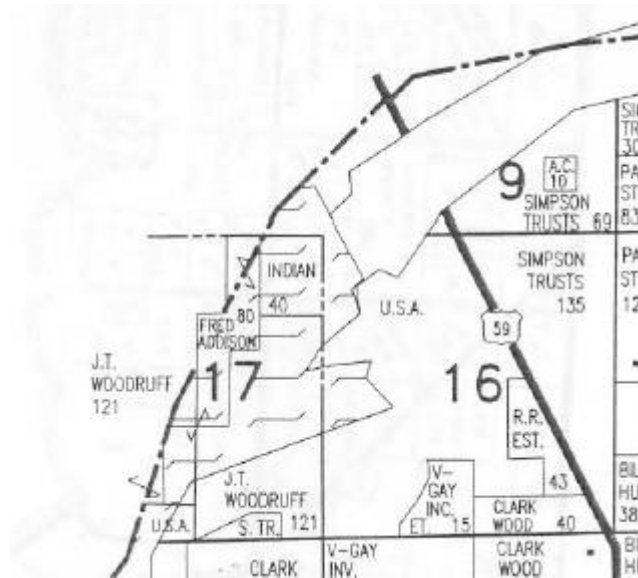


Figure 21--Private ownership site alt 4 and 19

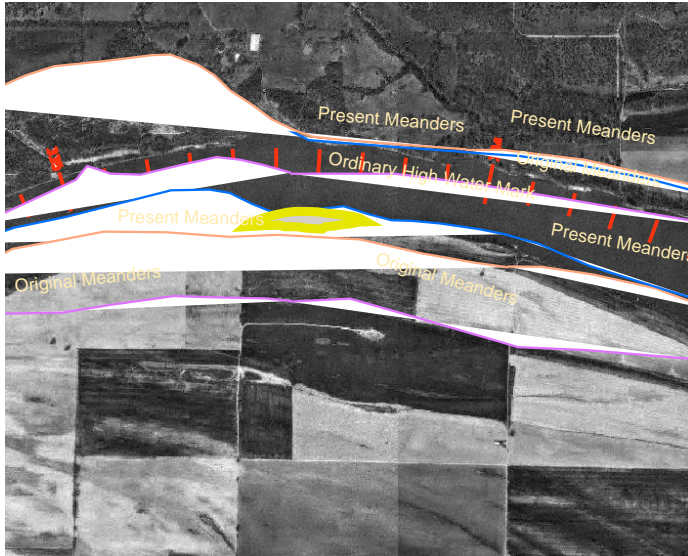


Figure 22--Site 4A

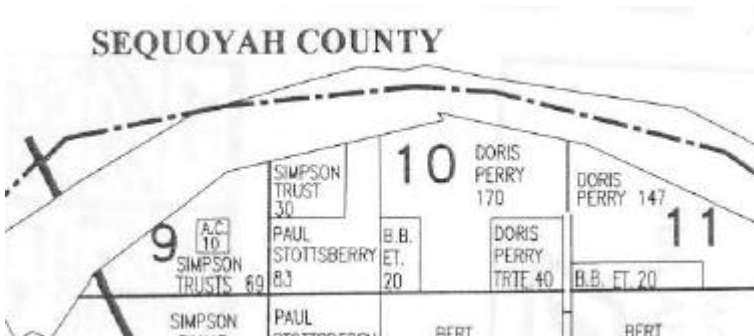


Figure 23--Private ownership Site 4A

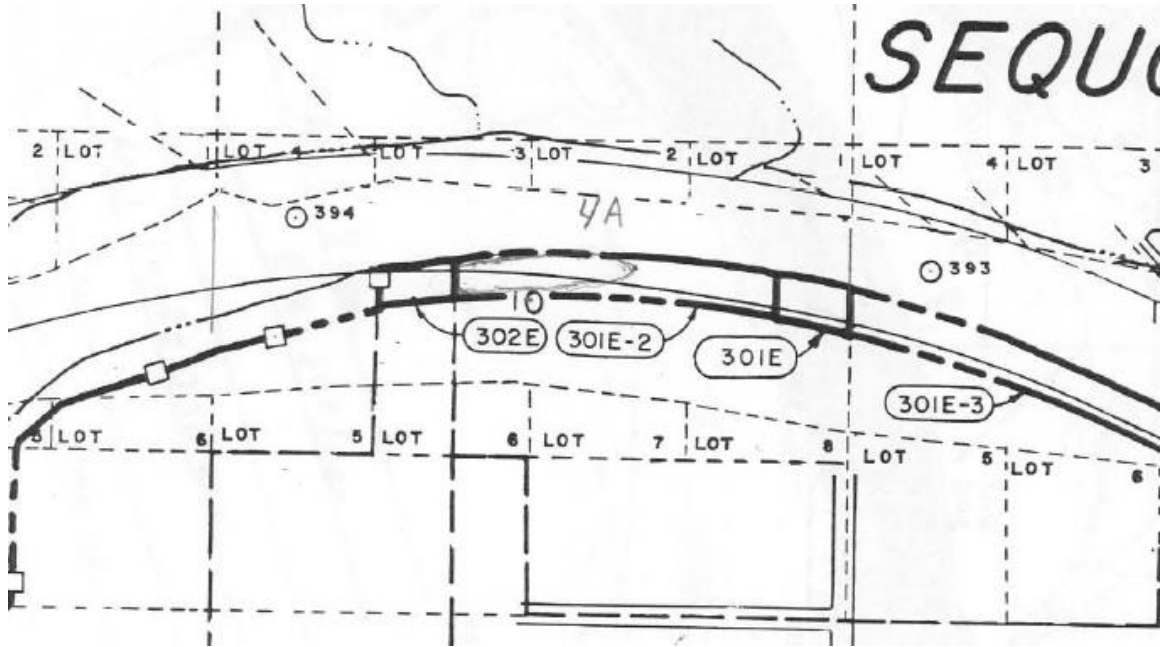


Figure 24--Government ownership site 4a

Site 4 Alt and 5 were addressed earlier.



Figure 25--Site 6

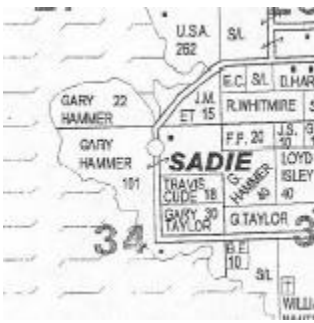


Figure 26--Private Ownership Site 6

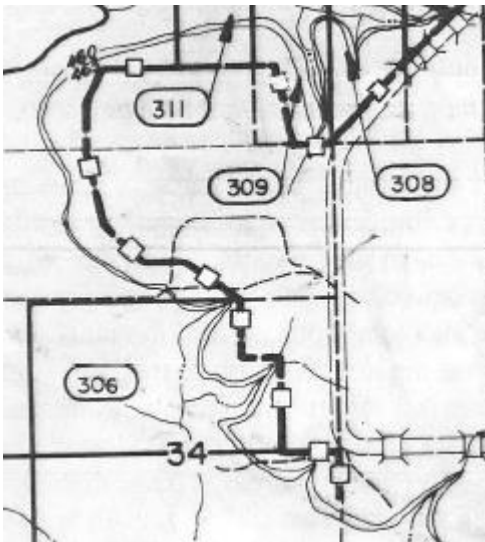


Figure 27--Government ownership site 6

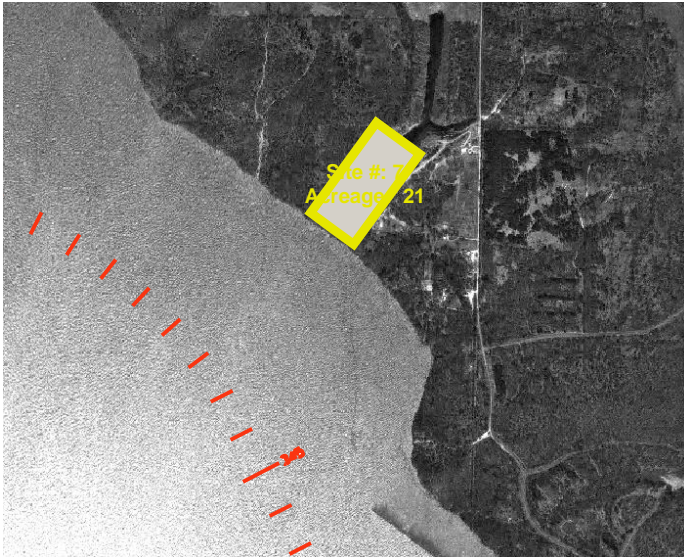


Figure 28--Site 7

Note: there is some open discussion about the size of this site. Two sites were combined into one but the acreage did not increase proportionally. The understanding right now is that the site will extend further up the mine pit to include approximately a site of 47 acres. Bob put called into both Vicki Weatherly and Sandra Stiles about this issue.

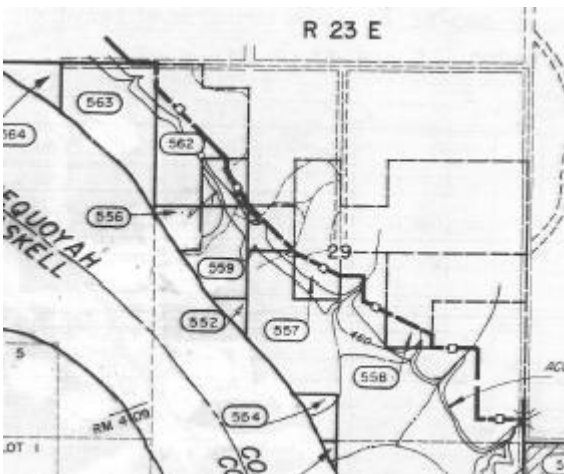


Figure 29--Government ownership site 7

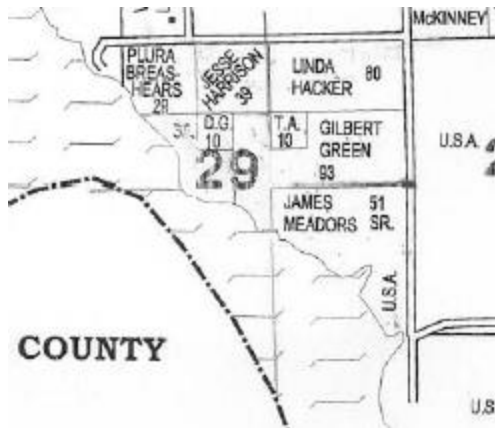


Figure 30--Private ownership of site 7

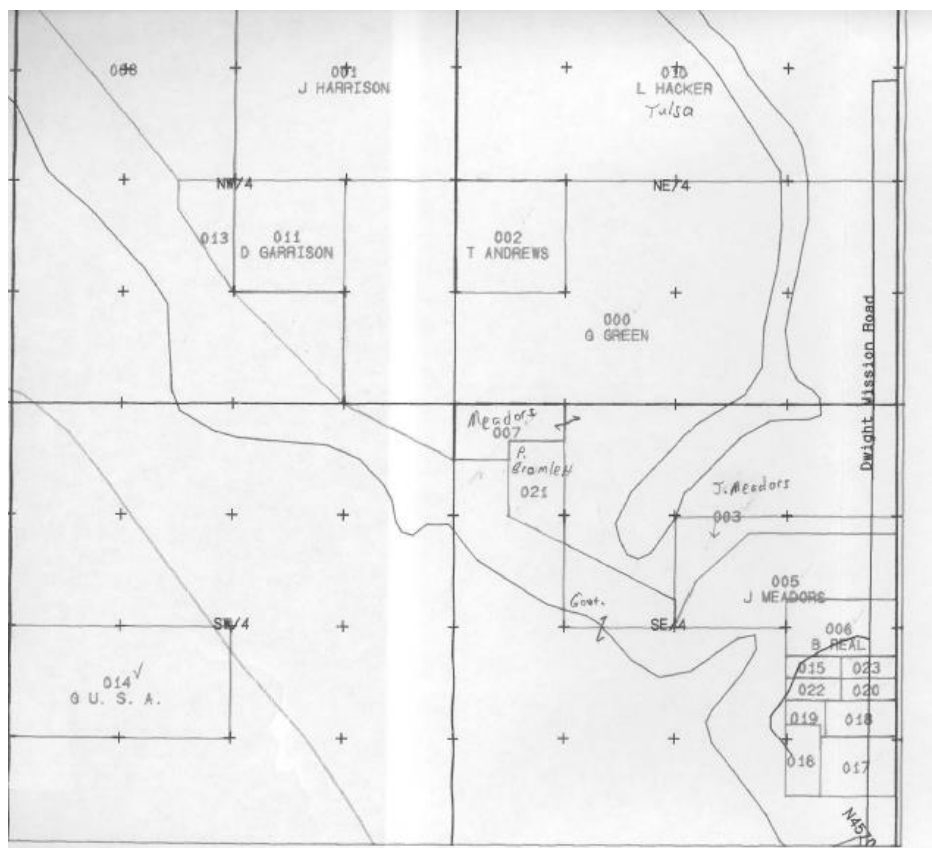


Figure 31--Private ownership site 7

Note: depending on the access route wanted, there are many small ownerships located in the SE corner. This is an abandoned mine area. Further up from the proposed dredge site, the area has already been reclaimed. Right now, there is a small trailer sitting on top of a beam overlooking the small pond that this mine created.



Figure 32--Sites 8

Note: All of the disposal areas are in-water. This area might be part of the Sequaoyah Refuge lease area.



Figure 33--Site 9

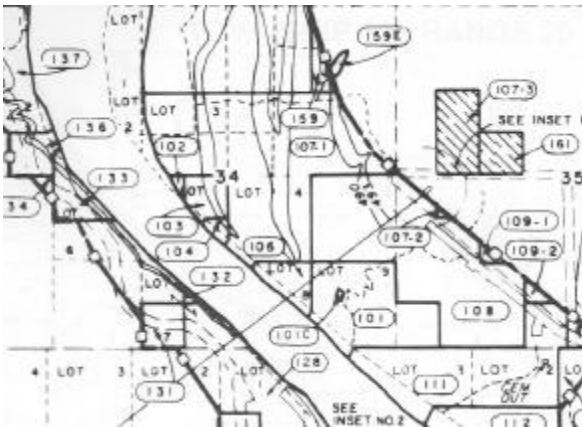


Figure 34--Government ownership of site 9



Figure 35--Private ownership of site 9



Figure 36--Site 10

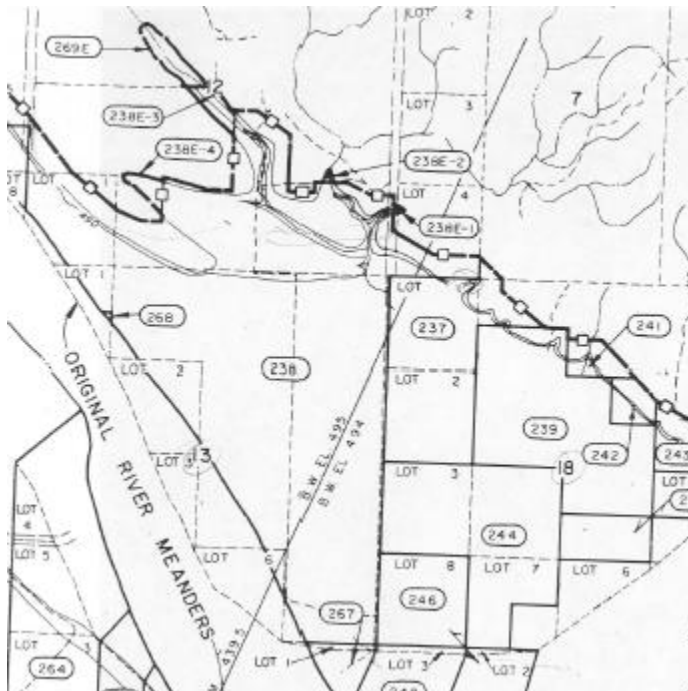


Figure 37--Government ownership of site 10



Figure 38--Private ownership of site 10

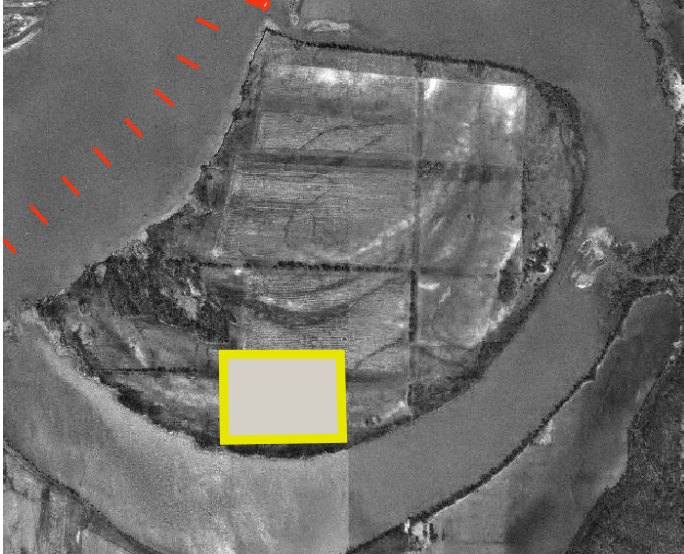


Figure 39--Site 11

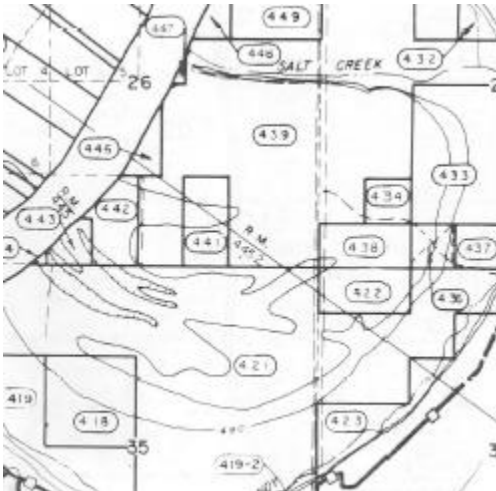


Figure 40--Government ownership of site 11



Figure 41--Private ownership of site 11



Figure 42--Site 12

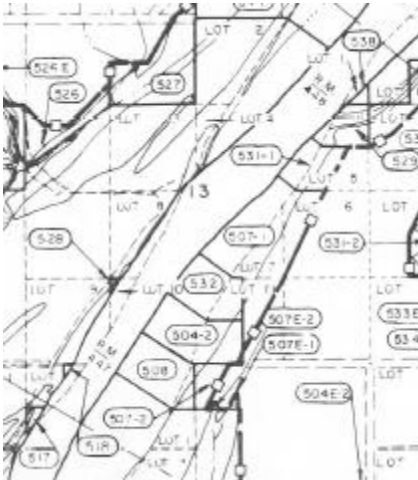


Figure 43--Government ownership of site 12



Figure 44--Site 13



Figure 45--Government ownership site 13



Figure 46--Private ownership site 13



Figure 49--Private ownership site 14

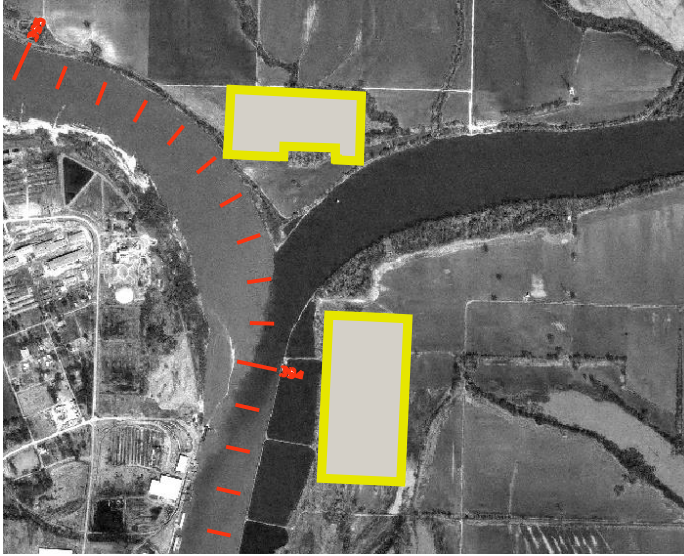


Figure 50--Site 15 and 16

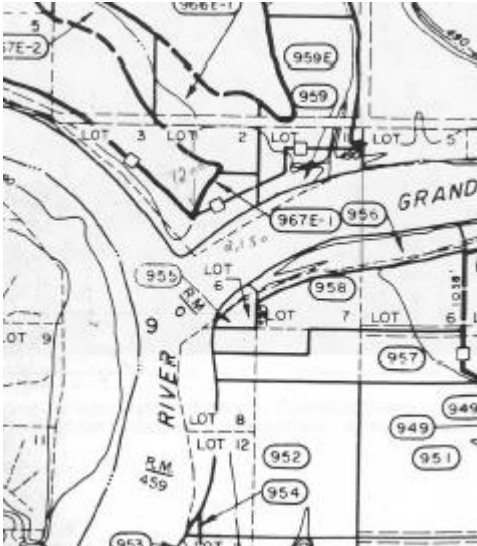


Figure 51--Government ownership site 15 and 16



Figure 52--Private ownership site 15 and 16



Figure 53--Site 18

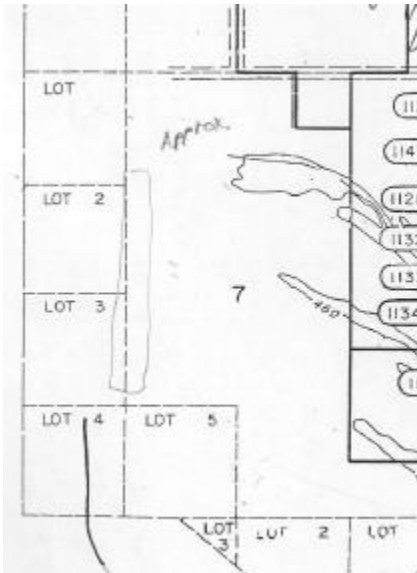


Figure 54--Government ownership site 18



Figure 55--Government ownership site 18

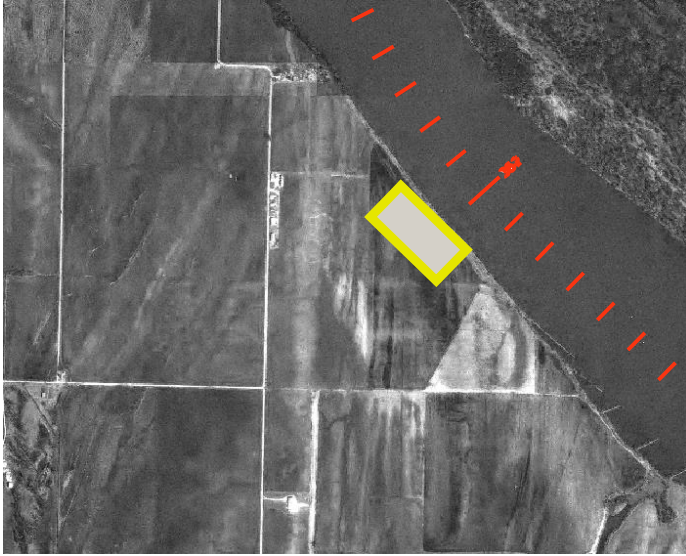


Figure 56--Site 18Z



Figure 57--Government ownership site 18Z

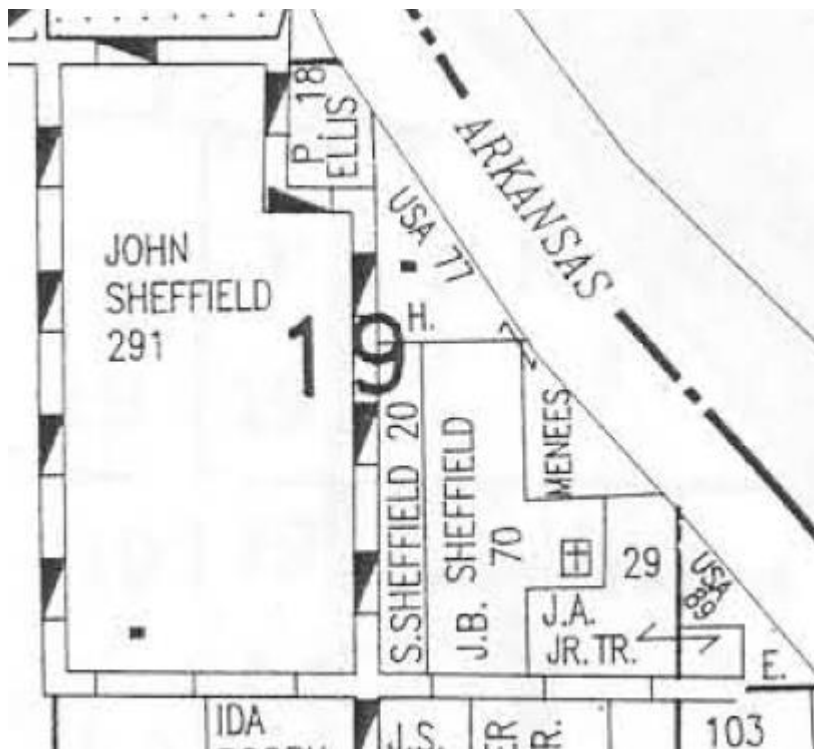


Figure 58--Private ownership site 18Z

Site 19 is addressed earlier with sites 4, alt 4 and 5

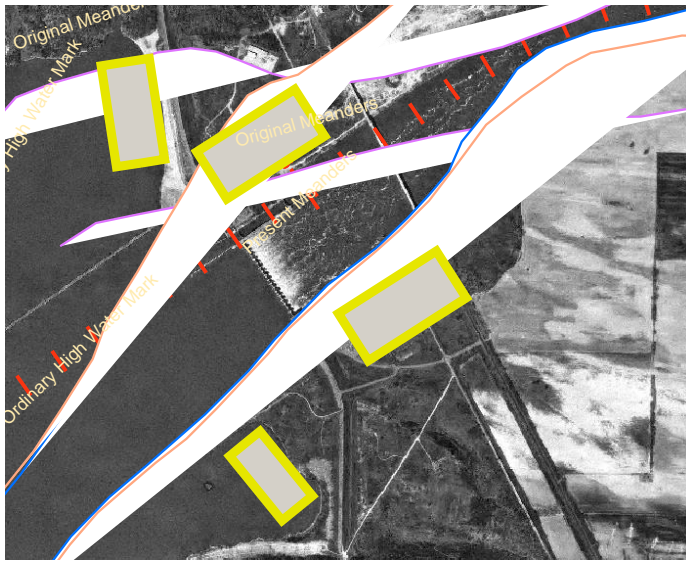


Figure 59--site 4, alt 4, 5 and 19



Figure 60--Site 20 and Alt 20

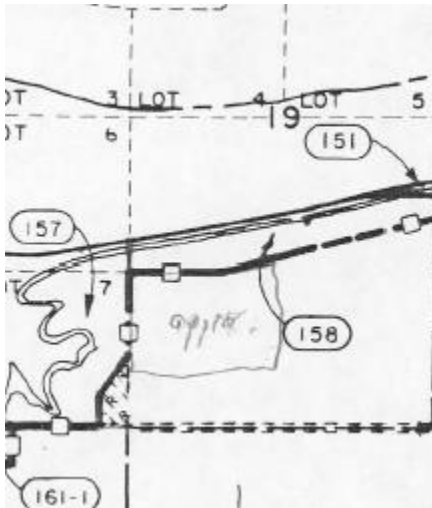


Figure 61--Government ownership site 20

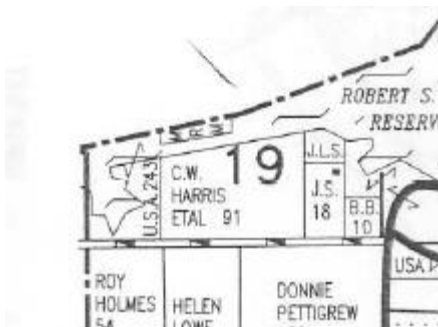


Figure 62--Private ownership site 20

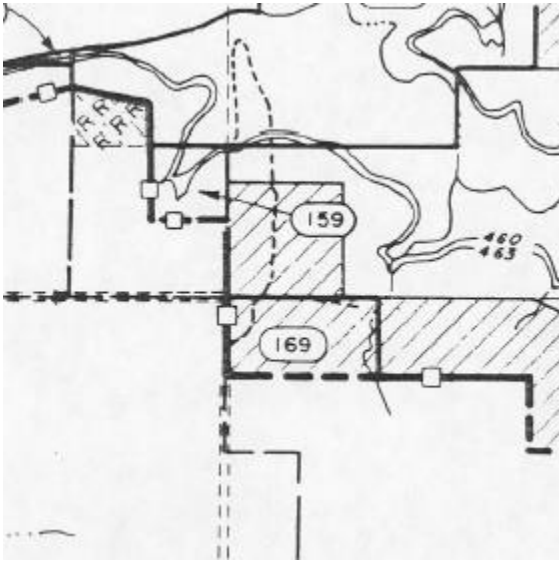


Figure 63--Government ownership site alt 20

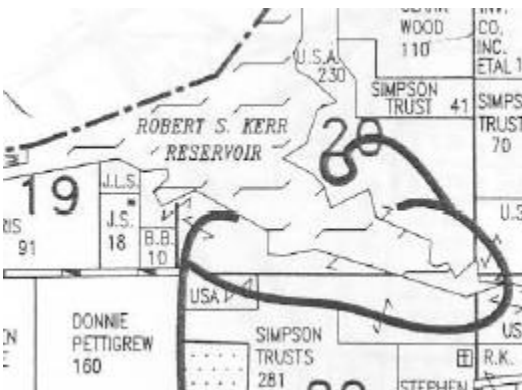


Figure 64--Private ownership site alt 20



Figure 65--Site 21

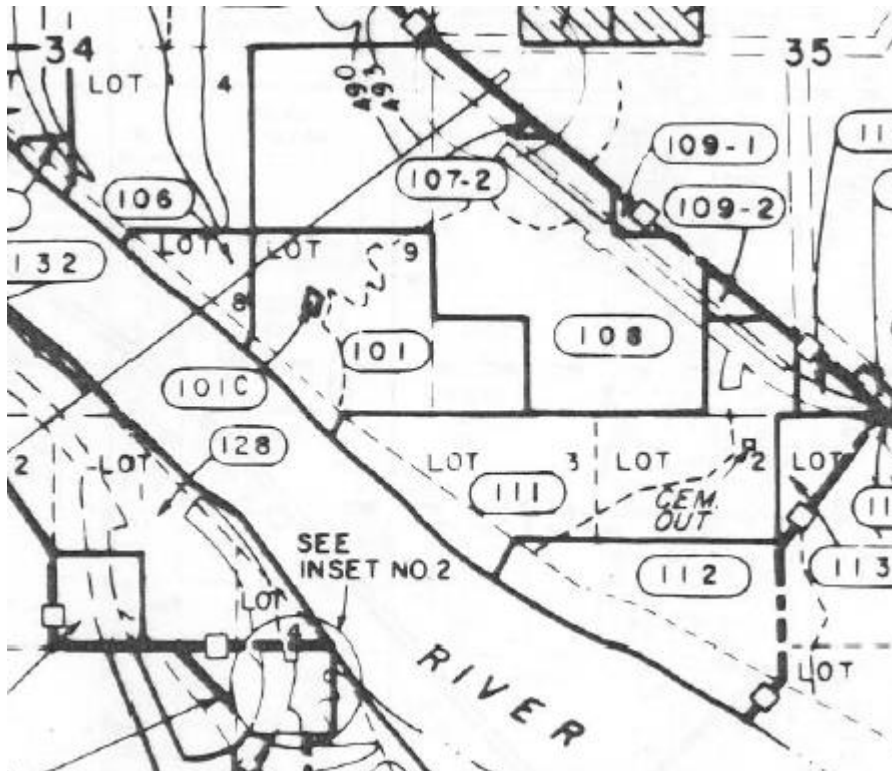


Figure 66--Government ownership site 21

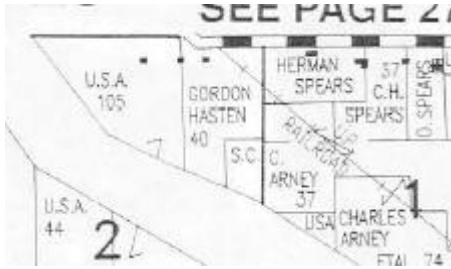


Figure 67--Private ownership site 21



Figure 68--Sites 21 and 22



Figure 69--Government ownership site 22

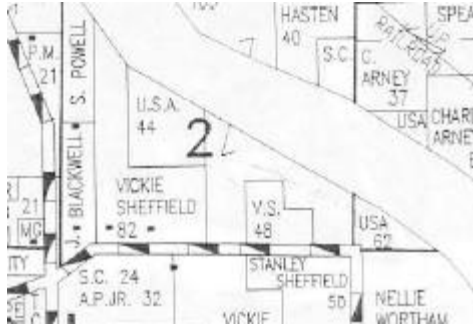


Figure 70--Private ownership site 22

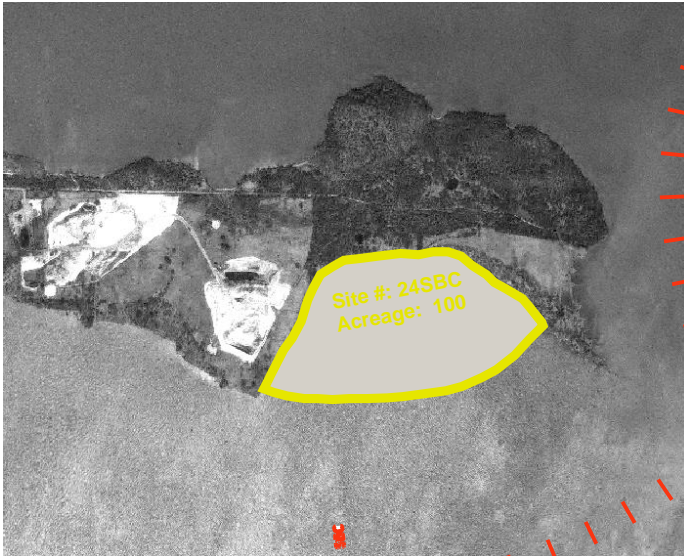


Figure 74--Site 24SBC



Figure 75--Government ownership site 24SBC

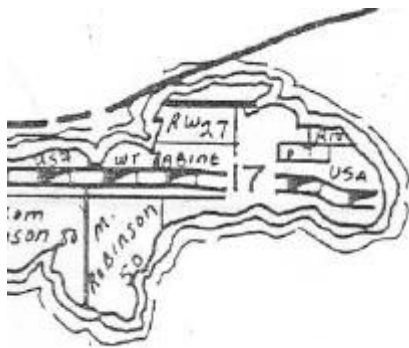


Figure 76--Private ownership site 24SBC

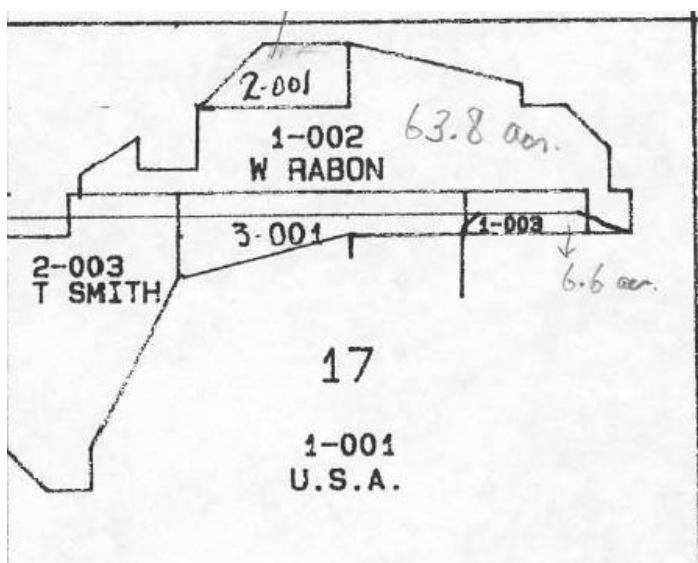


Figure 77--Private ownership site 24SBC



Figure 78--Site 25



Figure 79--Government ownership site 25

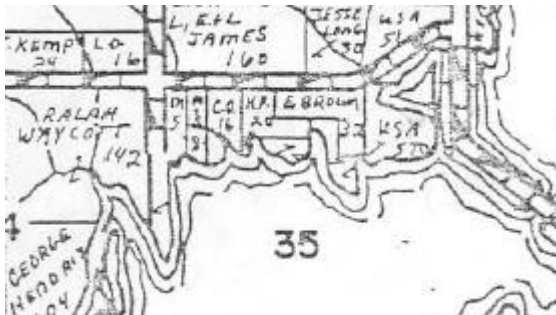


Figure 80--Private ownership site 25



Figure 81--Site 27

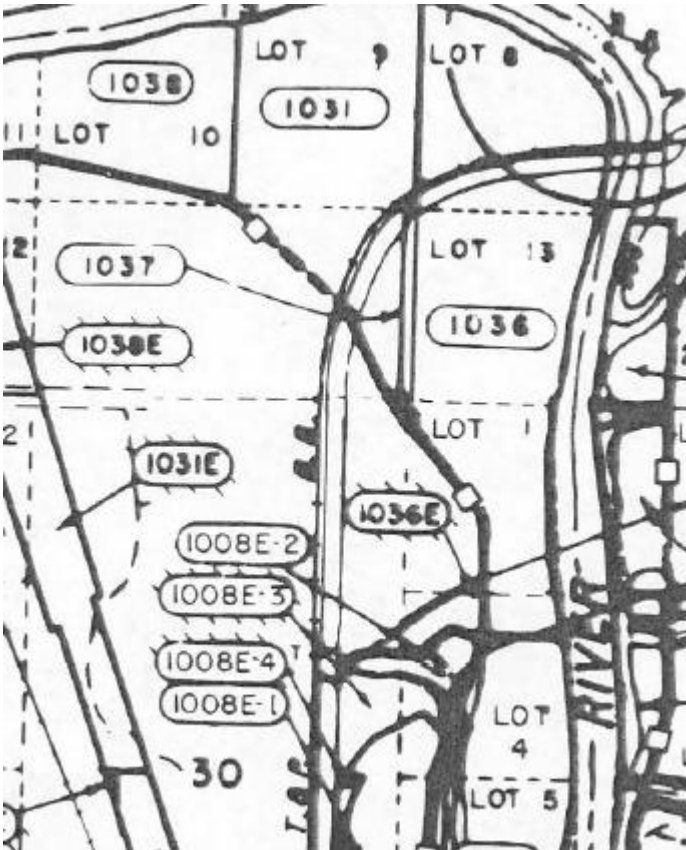


Figure 82--Government ownership site 27

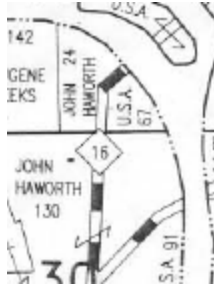


Figure 83--Private ownership site 27



Figure 84--Site 28

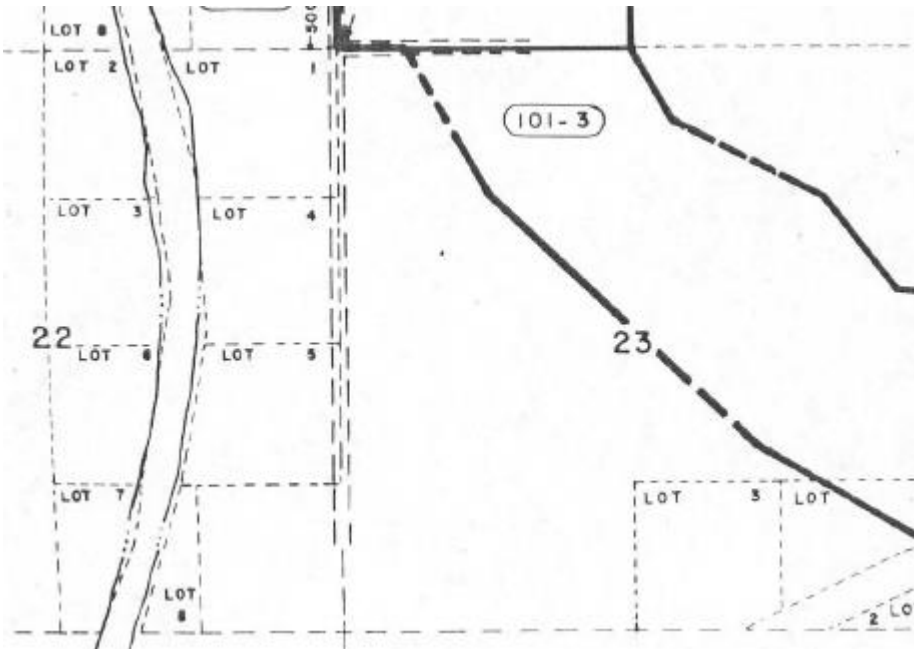


Figure 85--Government ownership site 28



Figure 86--Private ownership site 28

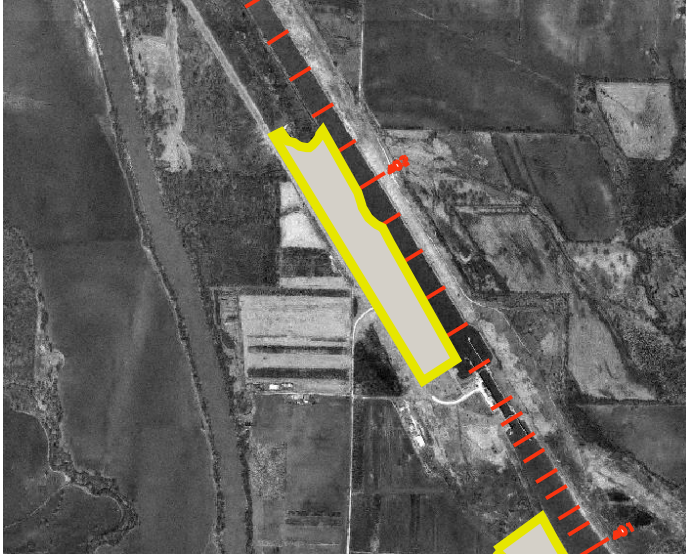


Figure 87--Site 29

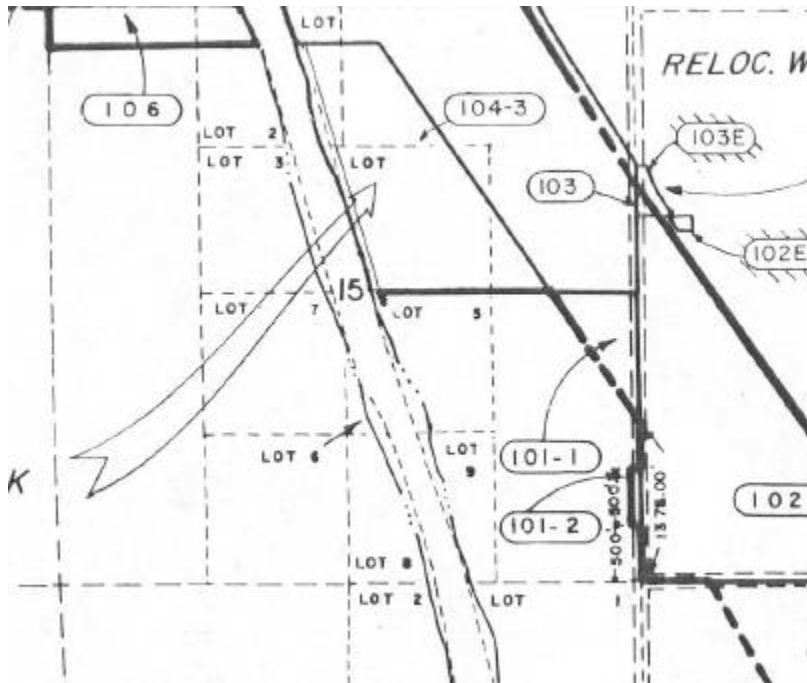


Figure 88--Government ownership site 29



Figure 89--Private ownership site 29

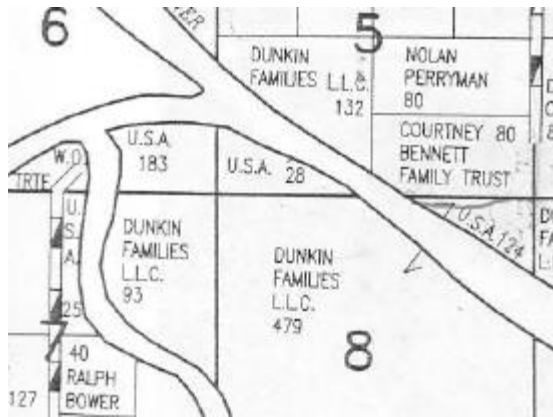


Figure 96--Private ownership site 31A and 31B

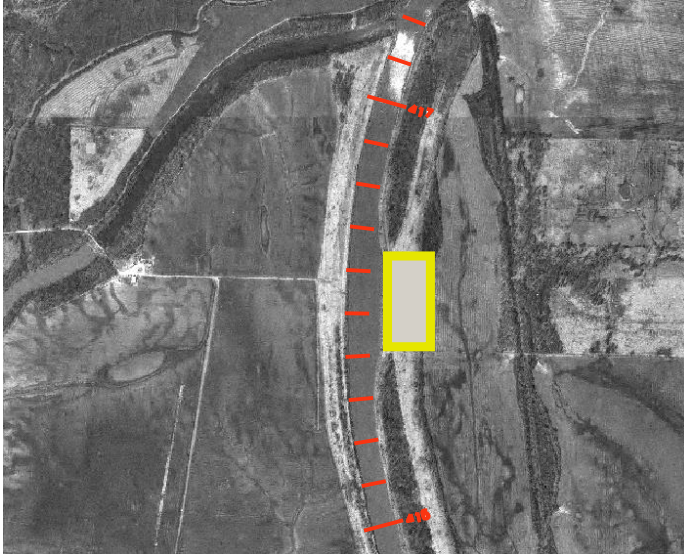


Figure 97--Site 32



Figure 98--Government ownership site 32

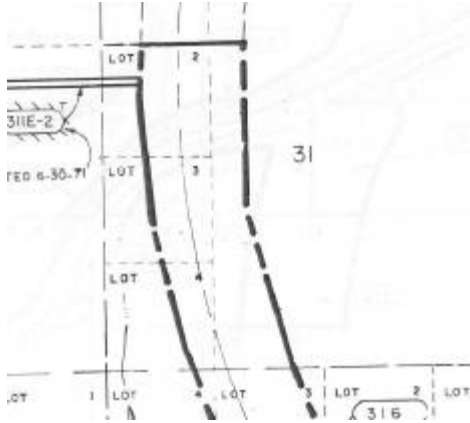


Figure 99--Government ownership site 32



Figure 100--Private ownership site 32



Figure 101--Site 33

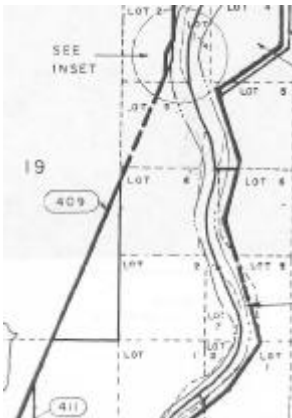


Figure 102--Government ownership site 33

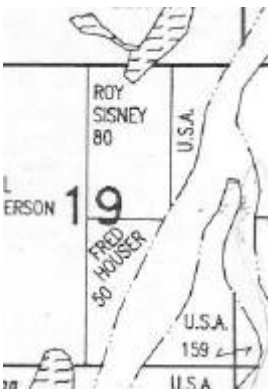


Figure 103--Private ownership site 33

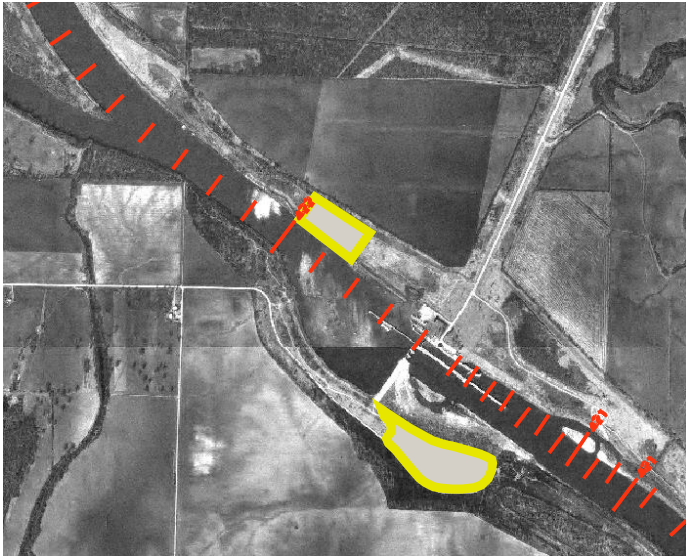


Figure 104--Site 34 and 35

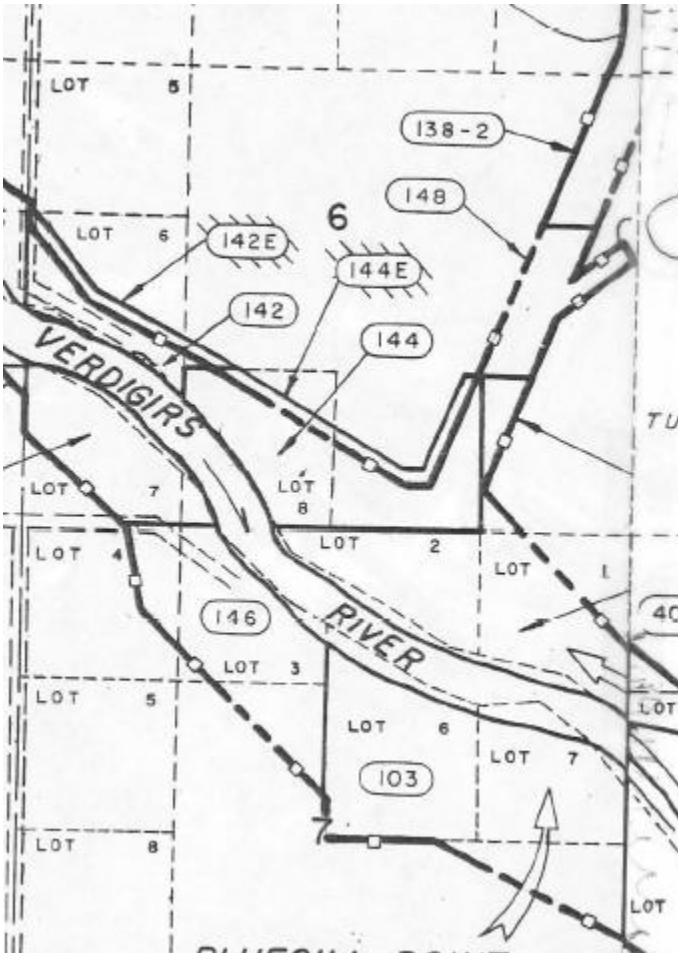


Figure 105--Government ownership site 34 and 35



Figure 106--Private ownership site 34 and 35



Figure 107--Site 36 and 37

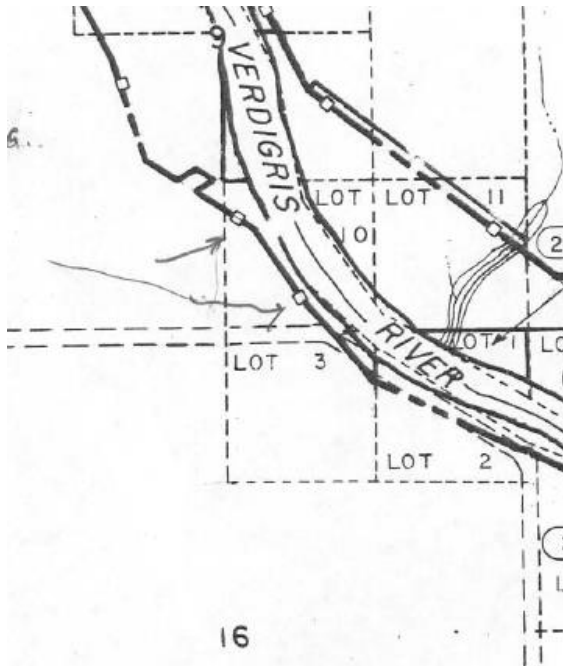


Figure 108--Government ownership site 36 and 37

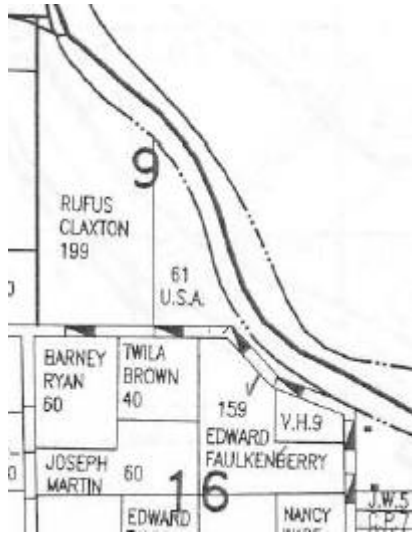


Figure 109--Private ownership site 36 and 37



Figure 110--Site 38

Note: the pink box is a reference site for environmental restoration and has no direct effect on the real estate portion of the report.



Figure 111--Government ownership site 38

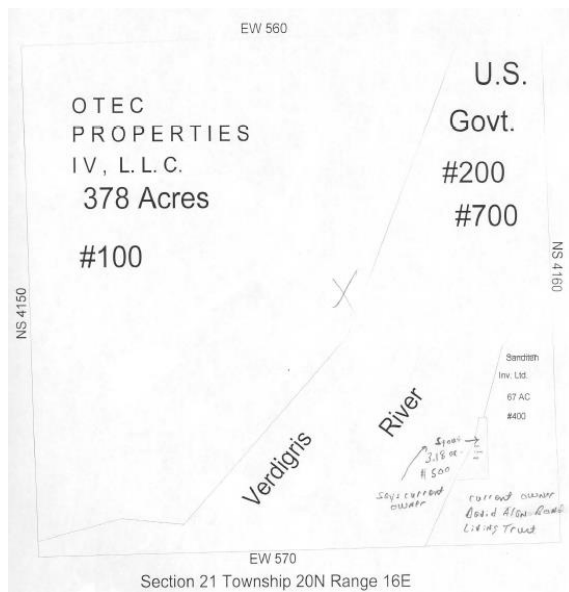


Figure 112--Private ownership site 38



Figure 113--Site 39



Figure 114--Government ownership site 39

* 313E-2 (TEMPORARY RIGHT OF WAY)

INDIAN MERIDIAN
T 20 N, R 16 E

SECTION 10, A tract of land in the $SE\frac{1}{4}SW\frac{1}{4}$ lying North of an existing fence, said tract more particularly described as: Beginning at the southeast corner of said $SE\frac{1}{4}SW\frac{1}{4}$; thence North 40.00 feet; thence West parallel with the south line of said $SE\frac{1}{4}SW\frac{1}{4}$ to a point on the Government purchase line; thence Southwesterly on a straight line to a point on said south line; thence East along said south line to the point of beginning.

The area described aggregates 0.77 acre, more or less, in Rogers County, Oklahoma.

Figure 115--Easement information on 313E-2

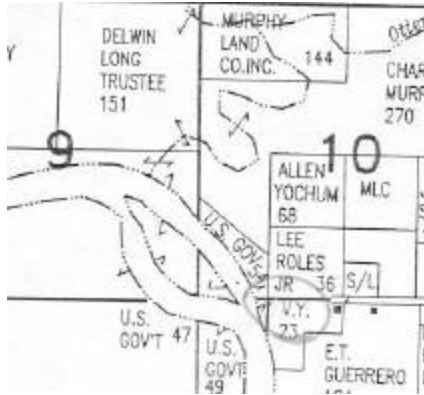


Figure 116--Private ownership site 39



Figure 119--Private ownership site 40

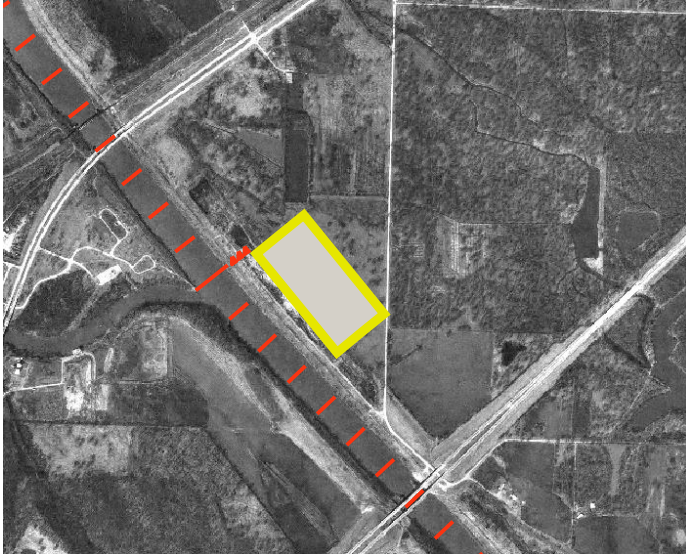


Figure 120--Site 41

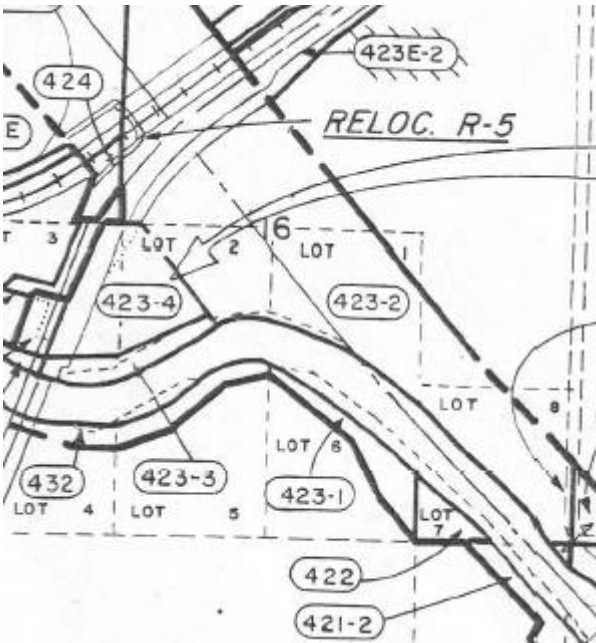


Figure 121--Government ownership site 41



Figure 122--Government ownership site 41



Figure 123--Site 41SBC and 42

In water disposal

Mitigation lands—652 acres were designated for mitigation

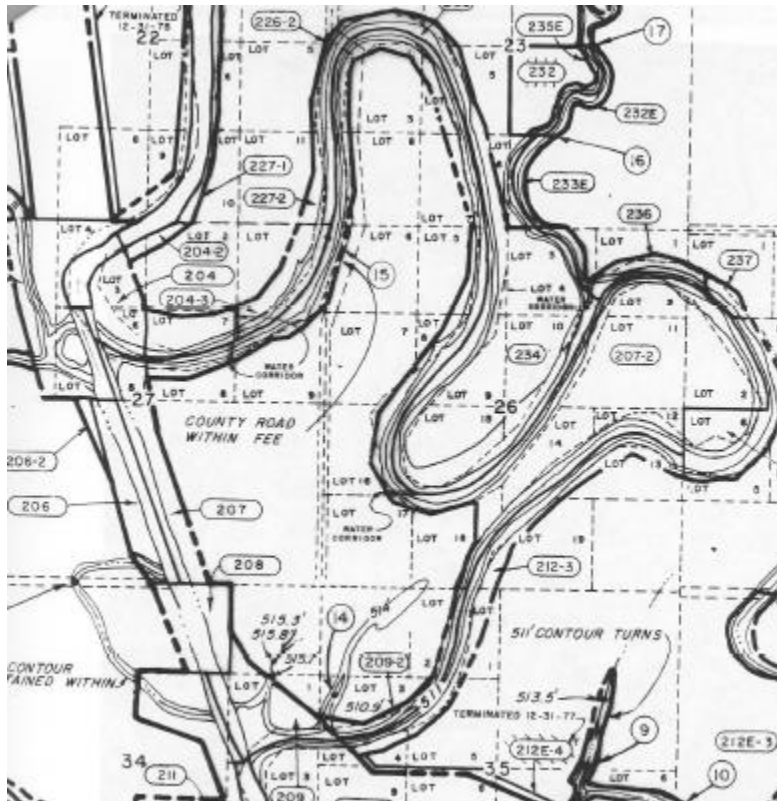


Figure 124--Government ownership for mitigation



Figure 125--Private ownership for mitigation