

**Legend**

**Dredge/Structures**

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current (Area routinely dredged - 1995 to 2003)
- Dredge Area - Proposed
- Structures Current
- Structures Proposed
- Proposed Tern Islands

**Gravel Bed Survey**

- Total acreage = 165 acres
- Gravel Beds

**Mussel Survey (live - sum)**

- 0
- 1 - 4
- 5 - 10
- 11 - 20
- 21 - 30
- 31 - 50
- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

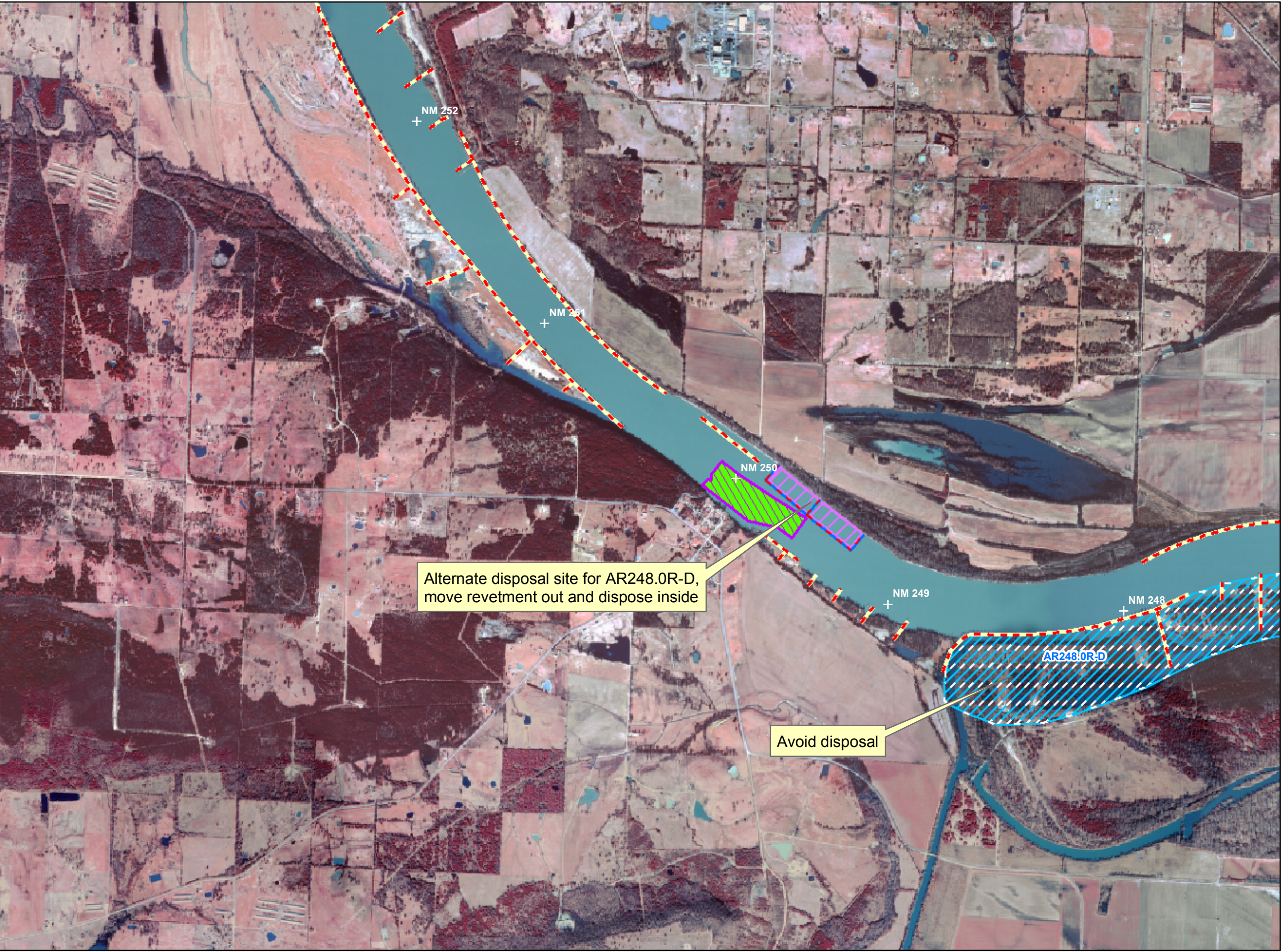
Map Sheet 51



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









**Legend**

**Dredge/Structures**

-  Disposal Sites - Current
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-  Disposal Sites - Proposed
-  Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
-  Dredge Area - Proposed
-  Structures Current
-  Structures Proposed
-  Proposed Tern Islands

**Gravel Bed Survey**




Total acreage = 165 acres

-  Gravel Beds

**Mussel Survey (live - sum)**

-  0
-  1 - 4
-  5 - 10
-  11 - 20
-  21 - 30
-  31 - 50
-  51 - 100

**Mitigation Sites**

- CoverType
-  AG
  -  BLH
  -  MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 52



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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





**Legend**

**Dredge/Structures**

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
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(Area routinely dredged - 1995 to 2003)
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**Gravel Bed Survey**

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- Gravel Beds

**Mussel Survey (live - sum)**

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- 11 - 20
- 21 - 30
- 31 - 50
- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

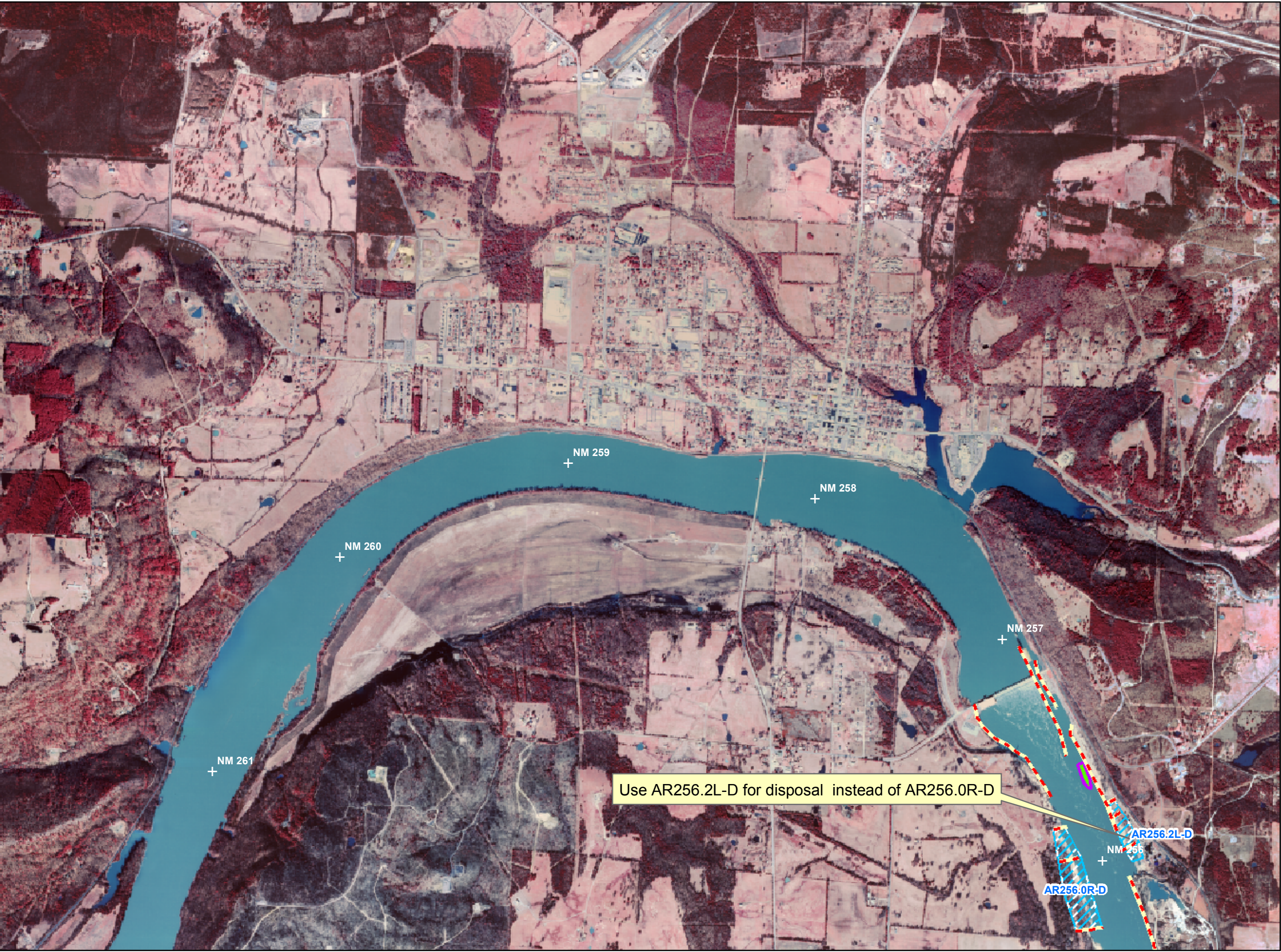
Map Sheet 53



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### Legend

**Dredge/Structures**

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
- Dredge Area - Proposed
- Structures Current
- Structures Proposed
- Proposed Tern Islands

**Gravel Bed Survey**  
Total acreage = 165 acres

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- 0
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- 5 - 10
- 11 - 20
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- 51 - 100

**Mitigation Sites**  
CoverType

- AG
- BLH
- MARSH

### Arkansas River Navigation Study

**JUNE 2005**

Map Sheet 54

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



USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT






**Legend**

**Dredge/Structures**

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-  21 - 30
-  31 - 50
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**Mitigation Sites**

- CoverType
-  AG
  -  BLH
  -  MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 55



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









**Legend**

**Dredge/Structures**

-  Disposal Sites - Current
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-  Disposal Sites - Proposed
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-  Dredge Area - Proposed
-  Structures Current
-  Structures Proposed
-  Proposed Tern Islands

**Gravel Bed Survey**

Total acreage = 165 acres




-  Gravel Beds

**Mussel Survey (live - sum)**

-  0
-  1 - 4
-  5 - 10
-  11 - 20
-  21 - 30
-  31 - 50
-  51 - 100

**Mitigation Sites**

**CoverType**

-  AG
-  BLH
-  MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

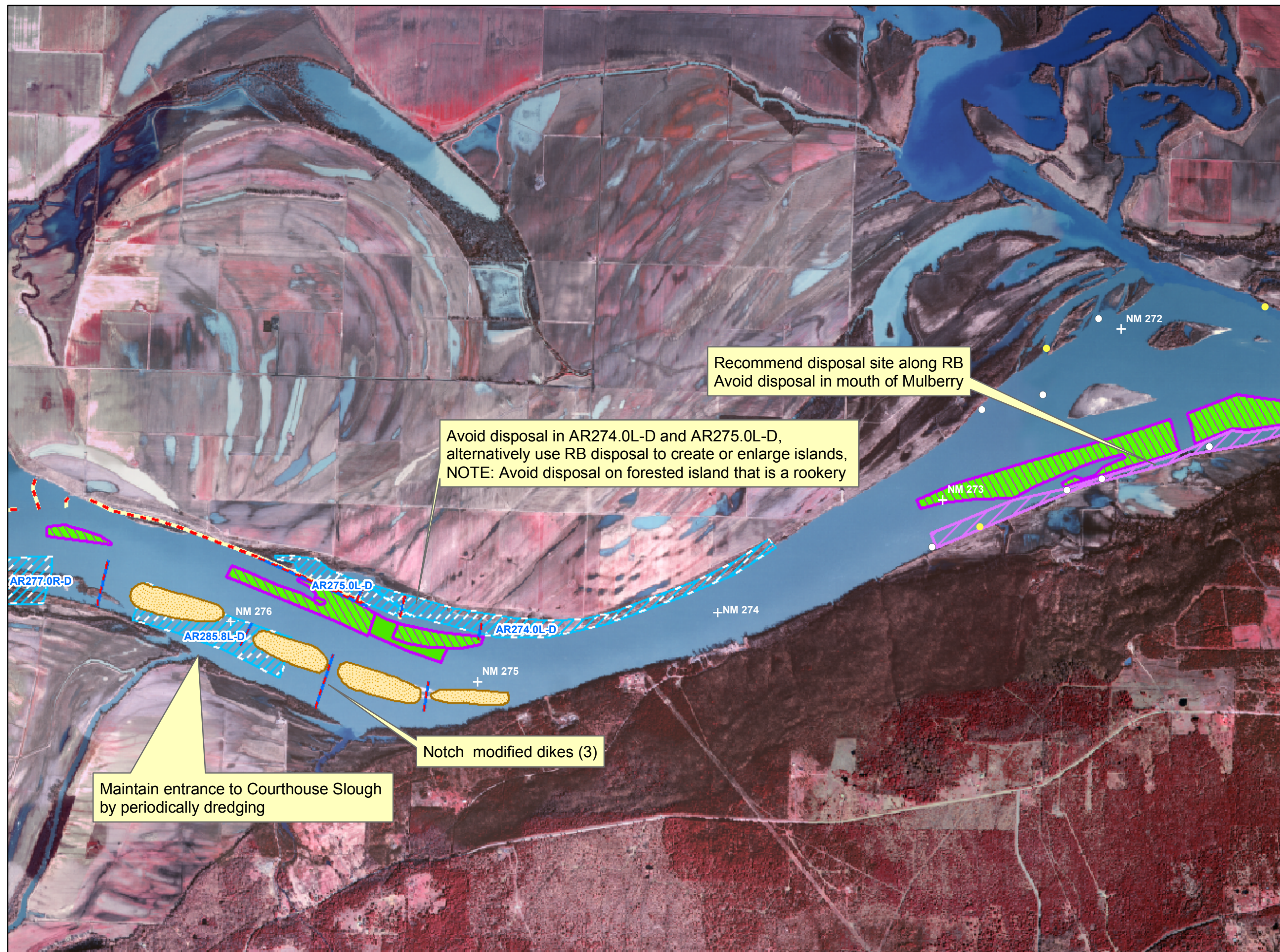
Map Sheet 56



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## Legend

### Dredge/Structures

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
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### Gravel Bed Survey

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- 51 - 100

### Mitigation Sites

#### CoverType

- AG
- BLH
- MARSH

## Arkansas River Navigation Study JUNE 2005

Map Sheet 57

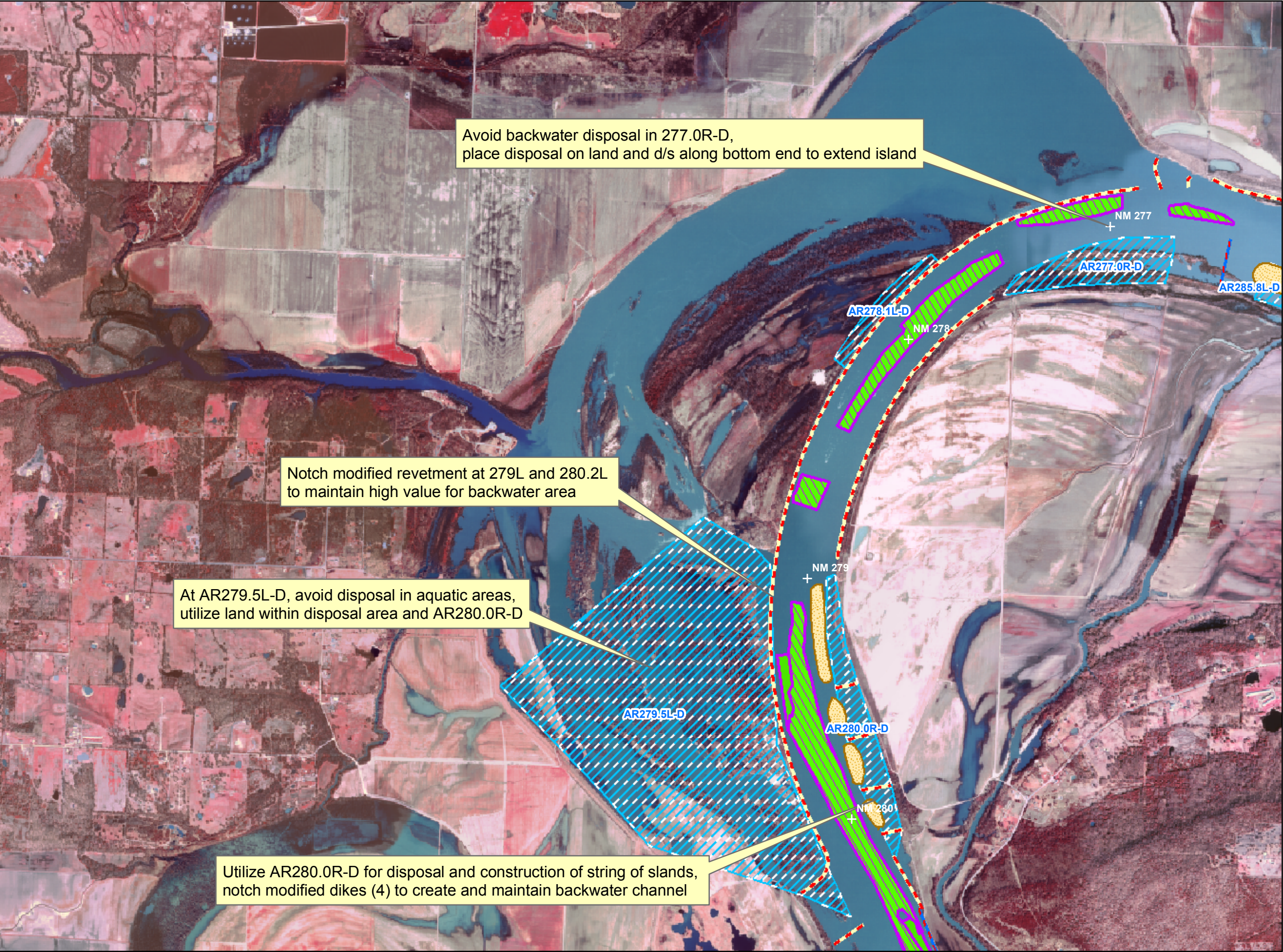


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





**Legend**

**Dredge/Structures**

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**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 58

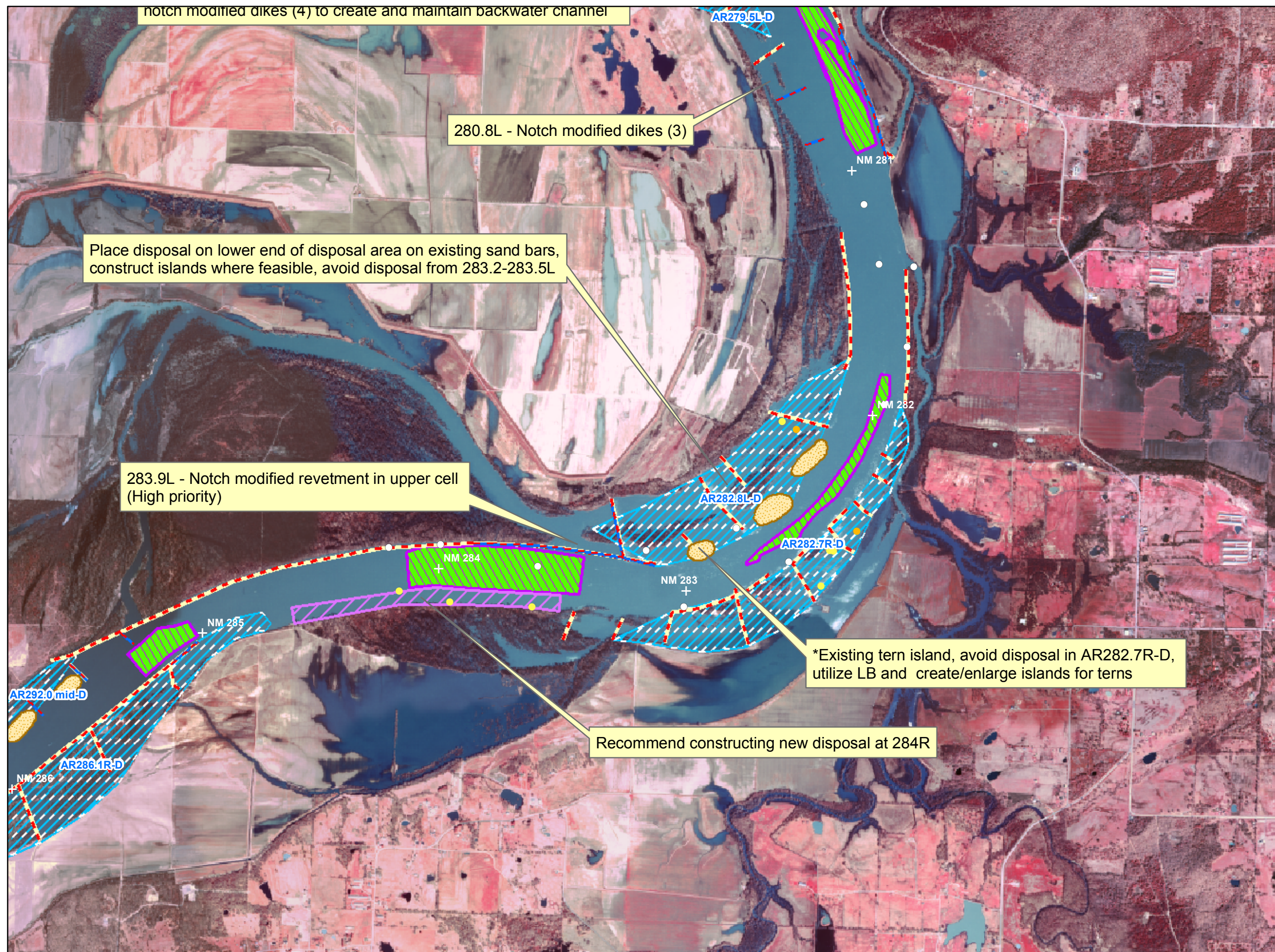


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT






## Legend

### Dredge/Structures

-  Disposal Sites - Current
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(Area routinely dredged - 1995 to 2003)
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-  Proposed Tern Islands

### Gravel Bed Survey

Total acreage = 165 acres




-  Gravel Beds

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-  31 - 50
-  51 - 100

### Mitigation Sites

#### CoverType

-  AG
-  BLH
-  MARSH

## Arkansas River Navigation Study JUNE 2005

Map Sheet 59

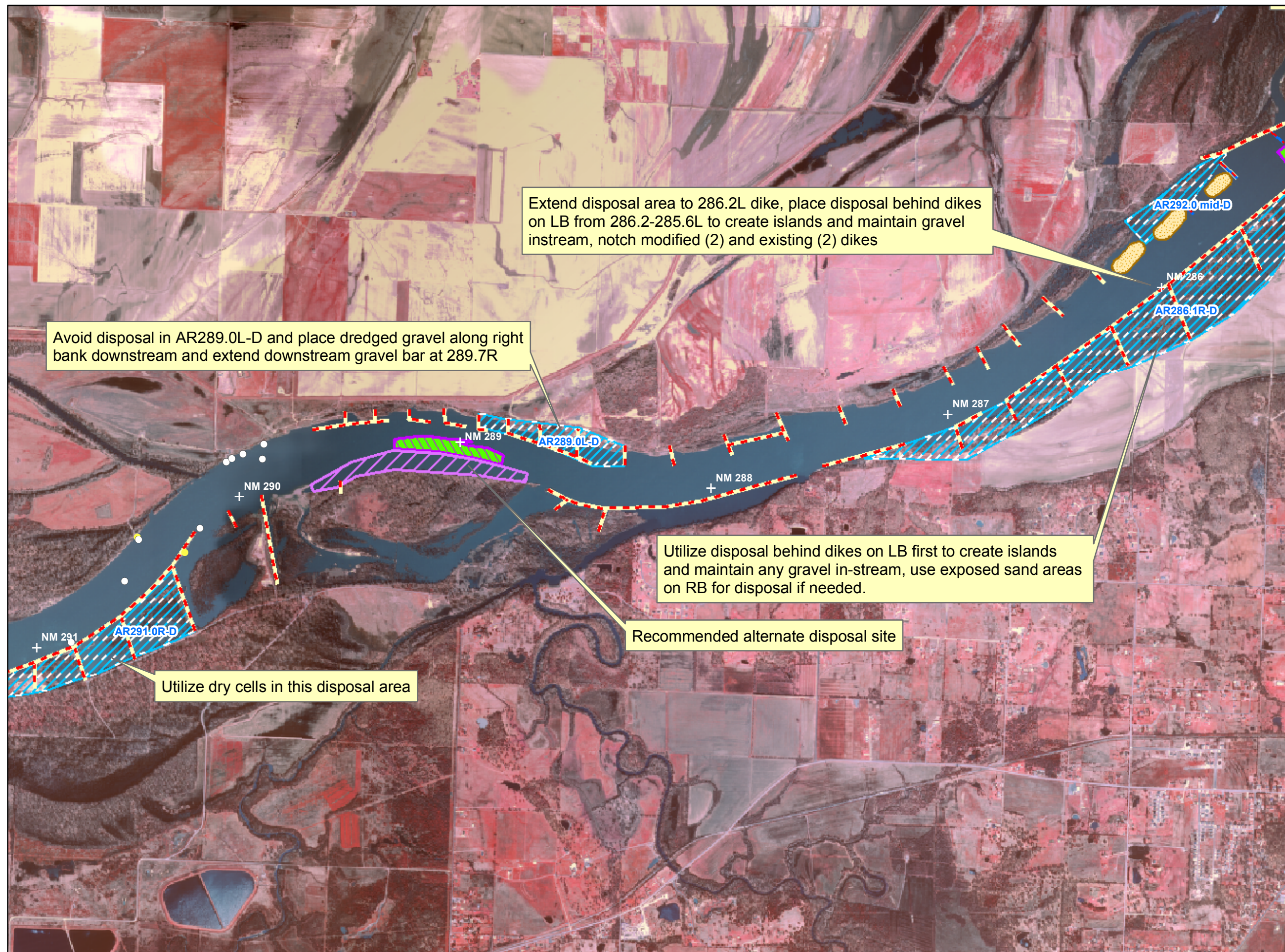


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





## Legend

### Dredge/Structures

- Disposal Sites - Current
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### Mitigation Sites

#### CoverType

- AG
- BLH
- MARSH

## Arkansas River Navigation Study JUNE 2005

Map Sheet 60

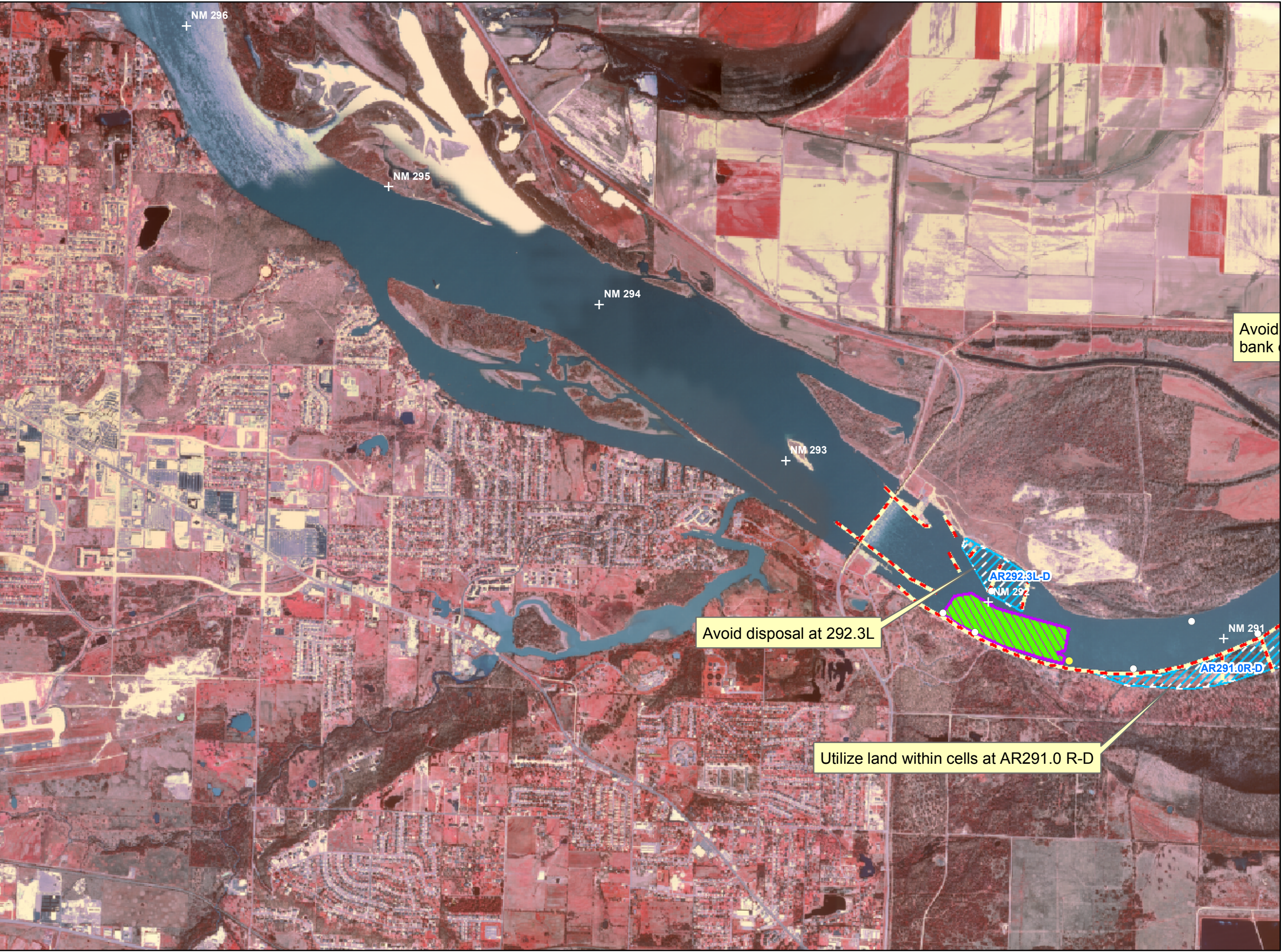


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





**Legend**

**Dredge/Structures**

- Disposal Sites - Current
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**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 61



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**Legend**

**Dredge/Structures**

- Disposal Sites - Current
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- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

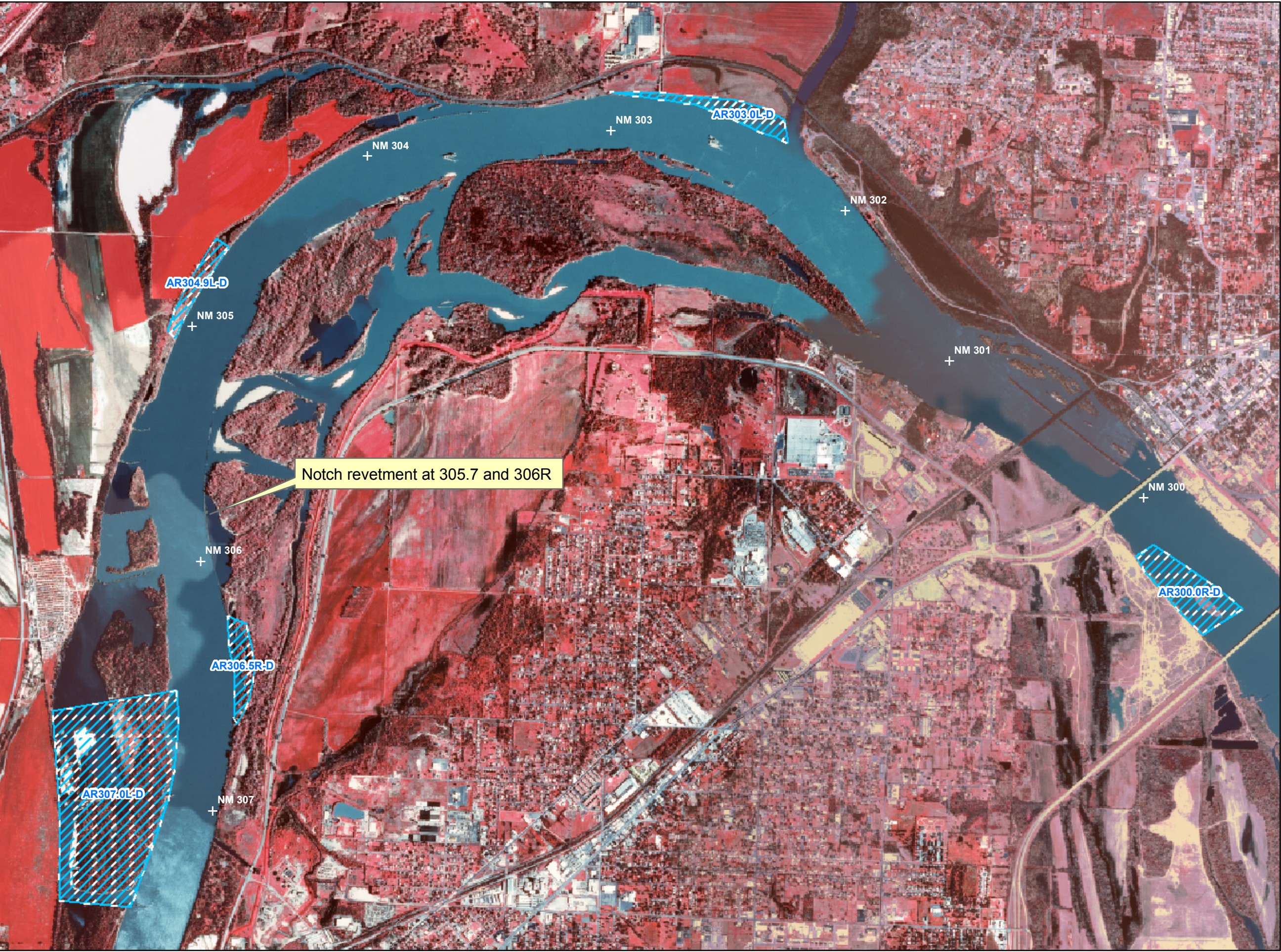
Map Sheet 62



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**Legend**

**Dredge/Structures**

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- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

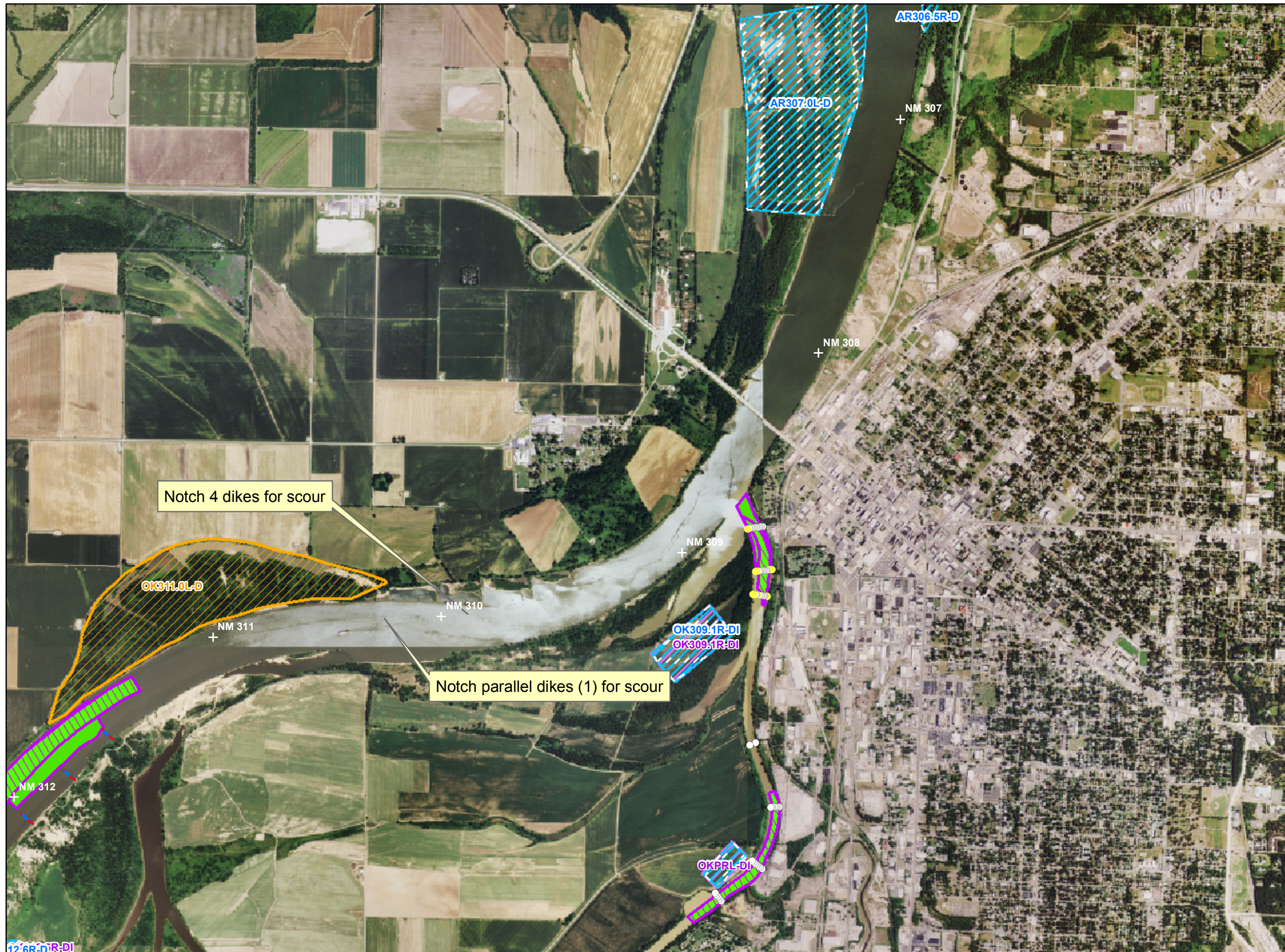
Map Sheet 63



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## Legend

### Dredge/Structures

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
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- 51 - 100

### Mitigation Sites

#### CoverType

- AG
- BLH
- MARSH

## Arkansas River Navigation Study JUNE 2005

Map Sheet 64

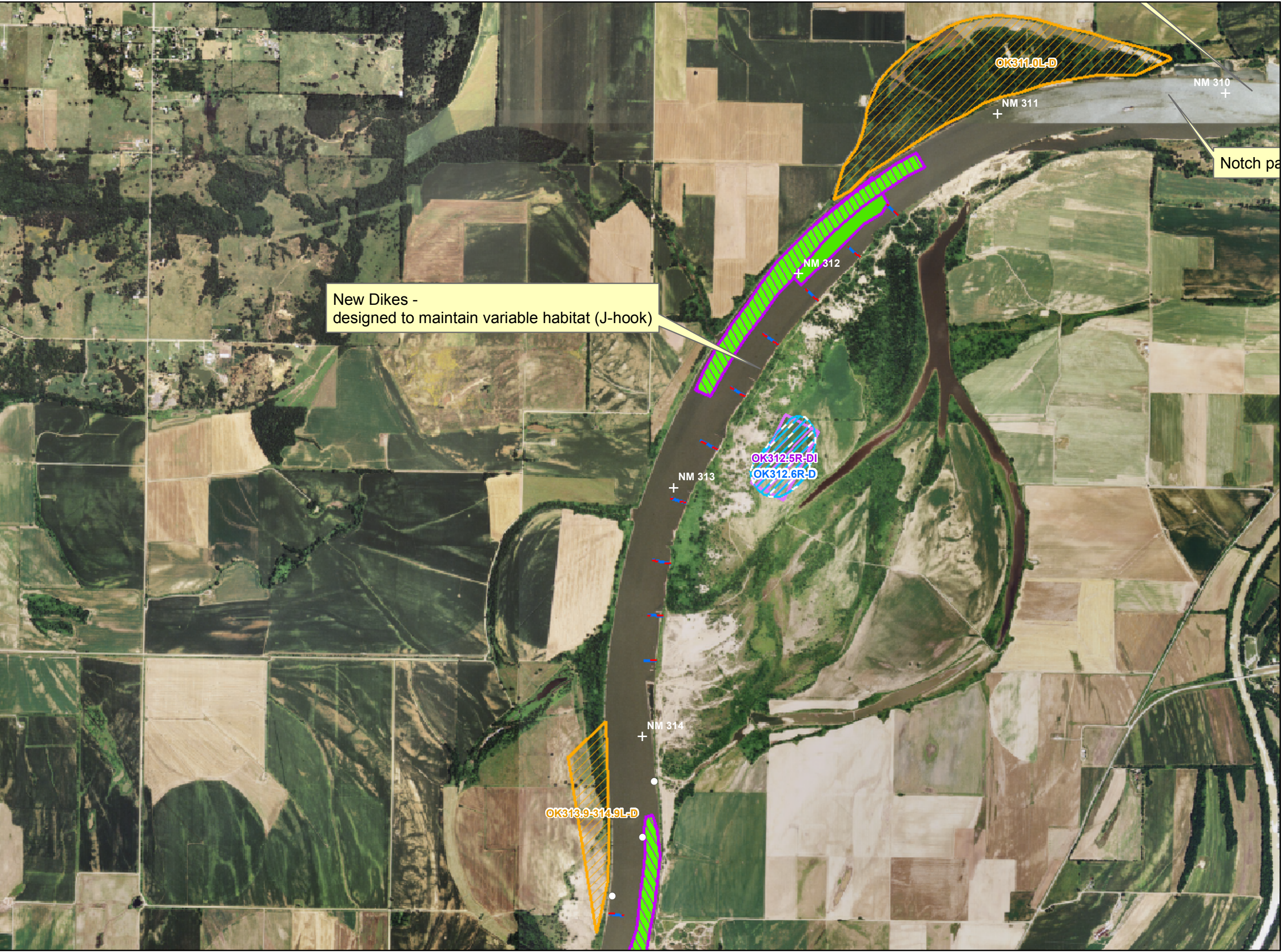


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





### Legend

#### Dredge/Structures

- Disposal Sites - Current
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- 51 - 100

#### Mitigation Sites

CoverType

- AG
- BLH
- MARSH

### Arkansas River Navigation Study

JUNE 2005

Map Sheet 65

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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





**Legend**

**Dredge/Structures**

- Disposal Sites - Current
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- 1 - 4
- 5 - 10
- 11 - 20
- 21 - 30
- 31 - 50
- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 66



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### Legend

#### Dredge/Structures

- Disposal Sites - Current
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- 5 - 10
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- 21 - 30
- 31 - 50
- 51 - 100

#### Mitigation Sites

CoverType

- AG
- BLH
- MARSH

### Arkansas River Navigation Study JUNE 2005

Map Sheet 67

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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





### Legend

#### Dredge/Structures

- Disposal Sites - Current
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(Area routinely dredged - 1995 to 2003)
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#### Mitigation Sites

CoverType

- AG
- BLH
- MARSH

### Arkansas River Navigation Study

JUNE 2005

Map Sheet 68

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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT






**Legend**

**Dredge/Structures**

-  Disposal Sites - Current
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-  Disposal Sites - Proposed
-  Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
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-  Structures Current
-  Structures Proposed
-  Proposed Tern Islands




**Gravel Bed Survey**

- Total acreage = 165 acres
-  Gravel Beds

**Mussel Survey (live - sum)**

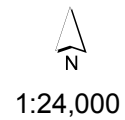
-  0
-  1 - 4
-  5 - 10
-  11 - 20
-  21 - 30
-  31 - 50
-  51 - 100

**Mitigation Sites**

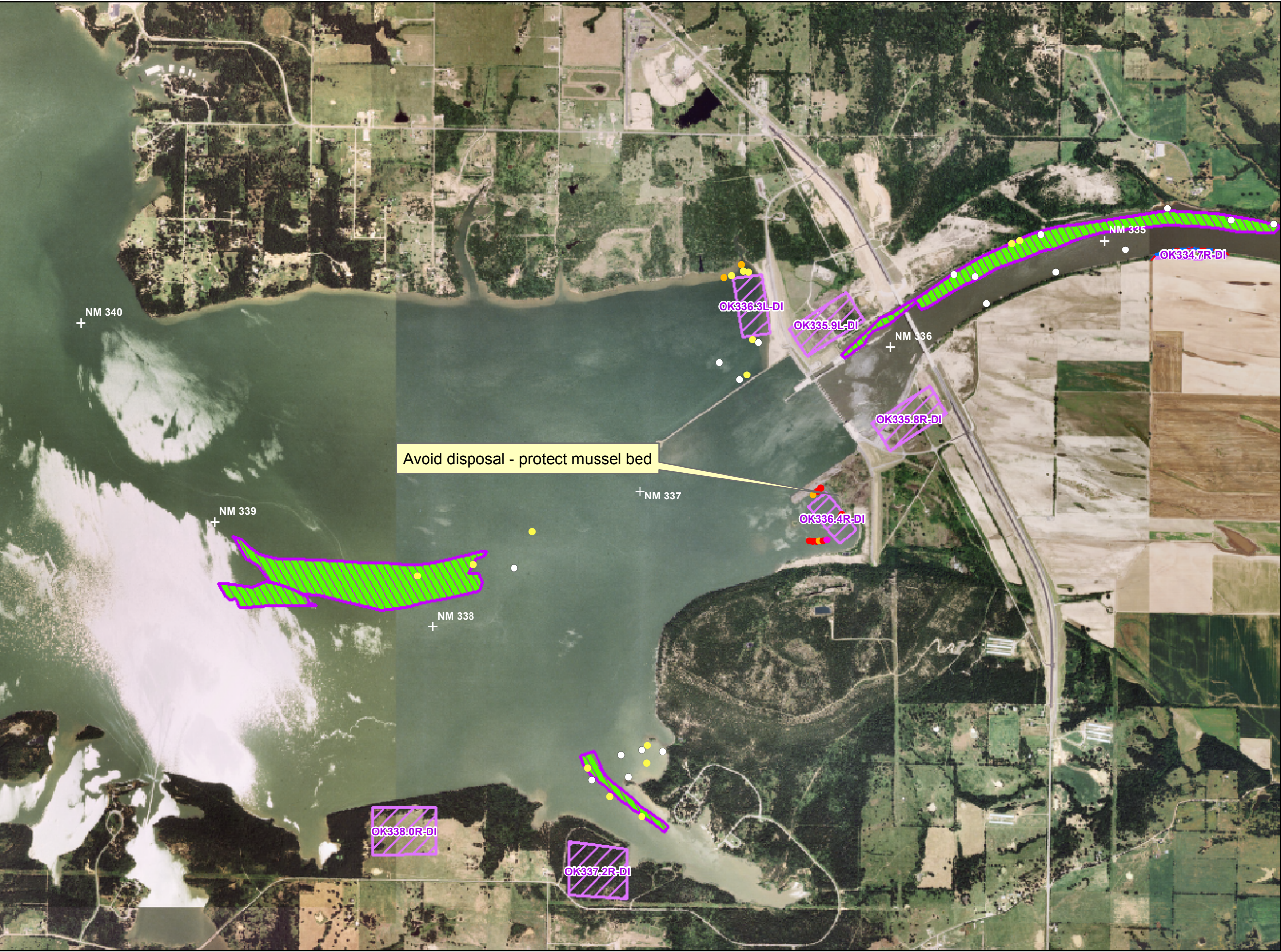
- CoverType
-  AG
  -  BLH
  -  MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 69







**Legend**

**Dredge/Structures**

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current  
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- 5 - 10
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- 21 - 30
- 31 - 50
- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 70



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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





NM 343

aquatic disposal; create HQ marsh;  
variable depth 6-in - 2 ft;  
mussels will be protected from impacts resulting from disposal

OKSBC0.4L-DI

## Legend

### Dredge/Structures

- Disposal Sites - Current
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- Disposal Sites - Proposed
- Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
- Dredge Area - Proposed
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### Gravel Bed Survey

Total acreage = 165 acres

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- 5 - 10
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- 21 - 30
- 31 - 50
- 51 - 100

### Mitigation Sites

#### CoverType

- AG
- BLH
- MARSH

## Arkansas River Navigation Study JUNE 2005

Map Sheet 71

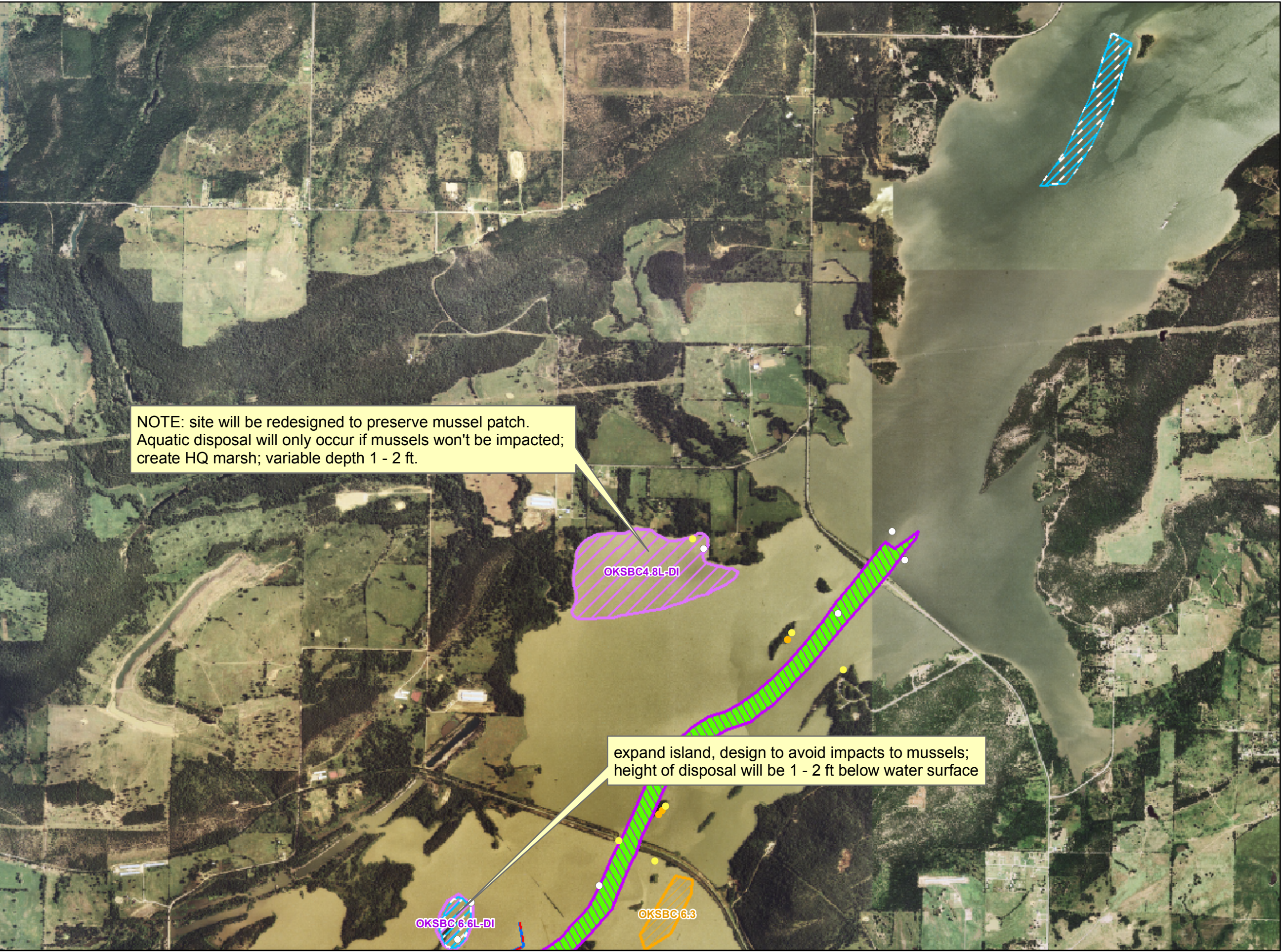


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USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT





NOTE: site will be redesigned to preserve mussel patch. Aquatic disposal will only occur if mussels won't be impacted; create HQ marsh; variable depth 1 - 2 ft.

expand island, design to avoid impacts to mussels; height of disposal will be 1 - 2 ft below water surface

**Legend**

**Dredge/Structures**

- Disposal Sites - Current
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- Disposal Sites - Proposed
- Dredge Area - Current  
(Area routinely dredged - 1995 to 2003)
- Dredge Area - Proposed
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- Structures Proposed
- Proposed Tern Islands

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- Gravel Beds

**Mussel Survey (live - sum)**

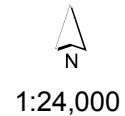
- 0
- 1 - 4
- 5 - 10
- 11 - 20
- 21 - 30
- 31 - 50
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**Mitigation Sites**

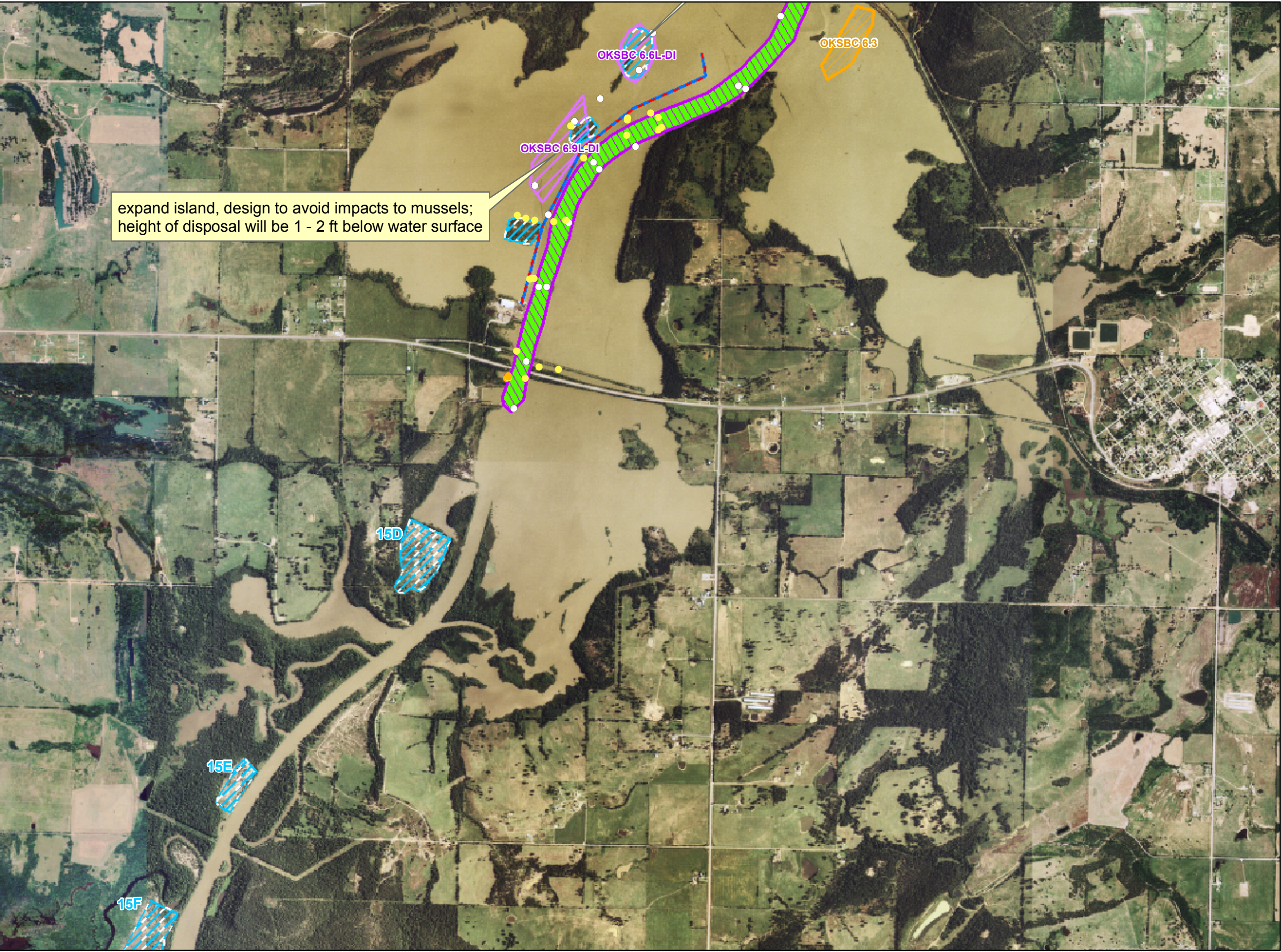
- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 72







expand island, design to avoid impacts to mussels;  
height of disposal will be 1 - 2 ft below water surface

**Legend**

**Dredge/Structures**

- Disposal Sites - Current
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(Area routinely dredged - 1995 to 2003)
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- Structures Proposed
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- 51 - 100

**Mitigation Sites**

- CoverType
- AG
  - BLH
  - MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 73



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Legend

Dredge/Structures

- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
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- Dredge Area - Proposed
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Mitigation Sites

- CoverType
- AG
  - BLH
  - MARSH

Arkansas River  
Navigation Study  
JUNE 2005

Map Sheet 74



1:24,000
















**Legend**

**Dredge/Structures**

-  Disposal Sites - Current
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(Area routinely dredged - 1995 to 2003)
-  Dredge Area - Proposed
-  Structures Current
-  Structures Proposed
-  Proposed Tern Islands




**Gravel Bed Survey**

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**Mussel Survey (live - sum)**

-  0
-  1 - 4
-  5 - 10
-  11 - 20
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**Mitigation Sites**

- CoverType
-  AG
  -  BLH
  -  MARSH

**Arkansas River  
Navigation Study  
JUNE 2005**

Map Sheet 75



1:24,000



USACE  
LITTLE ROCK DISTRICT  
TULSA DISTRICT