Relocate mussels out of canal
Arkansas River Navigation Study
AUGUST 2005
Map Sheet 3

Legend
Dredge/Structures
- Proposed
- Proposed
- Proposed
- Proposed

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
Cover Type
- AG
- BLH
- MARSH

Dredge/Structures
Disposal Sites - Current
Disposal Sites - Inactive
Disposal Sites - Proposed
Dredge Area - Current
Dredge Area - Proposed
Structures Current
Structures Proposed

Reconnect Lower Merrisach Lake to Canal
with culvert or water control structure for fish passage

Relocate mussels out of canal
Construct island

Notch existing revetment (1)

Construct string of islands

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
Cover Type
- AG
- BLH
- MARSH

Arkansas River
Navigation Study
JUNE 2005

Map Sheet 4

USACE LITTLE ROCK DISTRICT
TULSA DISTRICT

1:24,000

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
Cover Type
- AG
- BLH
- MARSH

Arkansas River
Navigation Study
JUNE 2005

Map Sheet 4

USACE LITTLE ROCK DISTRICT
TULSA DISTRICT

1:24,000
Notch existing revetment (1)

Maintain entrance to Coal Pile by periodically dredging

Avoid RB disposal

Construct string of islands

Notch modified revetment (2) and modified dike (1)

Total acreage = 165 acres

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
- Cover Type
  - AG
  - BLH
  - MARSH

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 5

1:24,000
Avoid aquatic disposal, utilize land

Notch modified dikes (4) and existing dike (1)

Notch modified revetment (1) and existing dike (1)

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
Cover Type
- AG
- BLH
- MARSH

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 6
1:24,000
Notch revetment (4) and existing dike (1)

Avoid LB disposal, utilize RB, notch modified revetment (4) and existing dike (1) across backwater

Maintain entrance to backwater channel by avoiding disposal and periodically dredging

Existing tern island enhance/create islands where feasible and avoid June-August construction, utilize disposal area and extend d/s to NM 31.0R

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
Cover Type
- AG
- BLH
- MARSH

Arkansas River
Navigation Study
AUGUST 2005

Map Sheet 7
1:24,000
*Existing tern island enhance/create islands where feasible and avoid June-August construction*

Avoid disposal, utilize RB

Avoid disposal, utilize RB, notch modified revetment

Extend islands downstream, increase island, RB disposal

Avoid disposal, utilize RB

Notch modified revetment at 39.3L and 39.7L

Notch existing revetment/dike (1)

Extend disposal area u/s to 38.1R, avoid blocking entrance to chute at 36.4R

Avoid blocking entrance to chute

Existing tern island, notch existing dikes (5) and enhance/construct tern islands where feasible

Arkansas River Navigation Study
JUNE 2005
Maintain a 1/2 mile boating lane at the entrance to Little Bayou Meto (44.6L) and 1/2 mile lane at u/s end of Bayou Meto by periodically dredging.

Avoid disposal in LB aquatic areas, utilize land and RB disposal, notch existing dikes/revetments (3).

Utilize AR44.3R-D for disposal and extend d/s to 43.0R.

Utilize this disposal area, notch existing and modified dikes (10-12) and extend disposal u/s.

Existing tern island, use disposal to enhance/construct tern islands, notch backside of existing dikes to maintain flow and islands 42.5L.

Construct islands and notch existing (3) dikes.

Legend

Dredge/Structures
- Disposal Sites - Current
- Disposal Sites - Proposed
- Dredge Area - Current
- 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
Cover Type
- AG
- BLH
- MARSH

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 9

USACE LITTLE ROCK DISTRICT TULSA DISTRICT
Maintain a 1/2 mile boating lane at the entrance to Little Bayou Meto (44.6L) and 1/2 mile lane at u/s end of Bayou Meto by periodically dredging.

Avoid disposal in aquatic areas of AR45.3L-D, dispose on land or preferably on RB.

Construct islands where feasible in AR46.5R-D, utilize two most d/s cells for disposal first.

Utilize land within cells for disposal at AR48.0L-D, avoid aquatic areas.

Utilize land within cells for disposal in 49.4R-D, avoid aquatic areas, notch existing revetments/dikes in two most u/s cells (2).

Notch modified dikes (4).

Utilize existing in-channel disposal.

Avoid disposal in aquatic areas of AR45.3L-D, dispose on land or preferably on RB.

Utilize land within cells for disposal in 49.4R-D, avoid aquatic areas, notch existing revetments/dikes in two most u/s cells (2).

Notch modified dikes (4).

Utilize existing in-channel disposal.

Maintain a 1/2 mile boating lane at the entrance to Little Bayou Meto (44.6L)
Utilize existing in-channel disposal

AR 49.4R-D
AR 55.6R-D
AR 55.5L-D
AR 49.7Chanel-D

NM 50
NM 51
NM 52
NM 53
NM 54
NM 55

Map Sheet 11
Arkansas River Navigation Study
AUGUST 2005

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)

Mitigation Sites
Cover Type
AG
BLH
MARSH

Arkansas River Navigation Study
AUGUST 2005
Map Sheet 11
1:24,000
Notch revetment at 58.3L

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 12

1:24,000
Probable tern island on RB, avoid aquatic areas in AR61.4L-D, utilize land within disposal cells or enhance/create tern islands on RB.

Utilize AR65.2L-D or in-channel disposal at AR65.5Channel-D.

Avoid disposal in AR64.5R-D, notch existing revetments and/or dikes (3).

Probable tern island on RB, avoid aquatic areas in AR61.4L-D, utilize land within disposal cells or enhance/create tern islands on RB.

Utilize AR65.2L-D or in-channel disposal at AR65.5Channel-D.

Place disposal in string of islands along RB.
Notch two longest existing dikes (2)

Maintain channel to backwater by periodically dredging

Dredge canals that connect to Lake Langhofer

Gravel Bed Survey
Total acreage = 165 acres

Mussel Survey (live - sum)

Mitigation Sites
Cover Type
AG
BLH
MARSH

Arkansas River Navigation Study
JUNE 2005
Map Sheet 14
1:24,000
Dredge mouth of Pastoria Bend chute and periodically dredge to maintain and notch existing dike (1) if needed to open access to backwater.

Place in proposed location and notch modified dikes (4)

Arkansas River Navigation Study
JUNE 2005

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
Cover Type
- AG
- BLH
- MARSH

Total acreage = 165 acres
- Gravel Beds

Arms race - sum
Notch existing dike and maintain entrance to backwater at 82.6R by periodically dredging.

Avoid disposal if possible and utilize in-channel disposal.

Mitigation Sites
Cover Type
AG
BLH
MARSH

Arkansas River Navigation Study
AUGUST 2005

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

NOTICE - NOT FOR SALE

Total acreage = 165 acres

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

Map Sheet 17
AUGUST 2005
1:24,000

USACE LITTLE ROCK DISTRICT
TULSA DISTRICT
Recommend constructing island downstream at 90.5-91.0L behind underwater revetment, if proposed location must be utilized, place disposal off bank and create island(s) and notch backside of existing dikes.

Maintain entrance to Tar Camp Creek by periodically dredging.
Bank stab and revetment at 91.5 is needed (current 0.3)

Notch existing revetment (1) and maintain entrance to backwater by periodically dredging

Avoid aquatic disposal in uppermost cells of AR95.5L-D, extend disposal area d/s to create a series of islands for a braided system and terns, notch existing dikes (5) to enhance backwater areas

Enlarge and utilize RB disposal, investigate disposing behind modified revetment and dikes
Notch existing revetment to access backwater (1)

Notch existing dikes (2)
Utilize this area as alternative disposal site.

Avoid disposal, notch existing dikes (10-12) for flow-through and to enhance diversity.

Utilize RB disposal as alternative, construct/enhance tern islands if feasible.

Existing tern island on LB, avoid work during nesting season.
Existing tern island(s), avoid work during nesting season, construct high water notches in dikes (4) to restore and maintain islands.

Avoid aquatic disposal in AR107.1L, utilize land areas or in-channel disposal.

Relocate gravel areas.

Total acreage = 165 acres

Gravel Bed Survey

Mussel Survey (live - sum)

Mitigation Sites

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 22

Legend

Dredge/Structures
Disposal Sites - Current
Disposal Sites - Approved but Inactive
Disposal Sites - Proposed
Dredge Area - Current
(Dredged routinely 1995 to 2003)
Dredge Area - Proposed

Proposed Tern Islands

Gravel Beds

Legend

Mussel Survey (live - sum)

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

Mitigation Sites

Cover Type

AG
BLH
MARSH

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 22

1:24,000
Install culvert through land mass at Willow Beach Park for fish passage

Install culvert through structure at Willow Beach Lake for fish passage

Legend
Dredge/Structures
- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current (areas 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
Cover Type
- AG
- BLH
- MARSH

Arkansas River Navigation Study
AUGUST 2005
Map Sheet 23
Notch underwater dikes on backside of islands (4)

Dredge backwater at 116.2R

Notch existing dikes 116.6 to 116.8R (2)

Notch existing dikes (3)

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 24

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
Cover Type
- AG
- BLH
- MARSH

Total acreage = 165 acres

Dredge Area - Proposed

Dredge Area - Current

Disposal Sites - Proposed

Disposal Sites - Approved but Inactive

Disposal Sites - Current

Structures Current

Structures Proposed

Proposed Tern Islands

Arkansas River Navigation Study
AUGUST 2005

Map Sheet 24

1:24,000
Notch existing dikes (2-4) for flow-through and access.

Notch existing dike for access and fish passage.

Avoid disposal in AR124.8L-D, utilize in-channel disposal

**Legend**

**Dredge/Structures**
- Disposal Sites - Current
- Disposal Sites - Approved but Inactive
- Disposal Sites - Proposed
- Dredge Area - Current
- Dredge Area - Proposed
- Structures Current
- Structures Proposed
- Proposed Tern Islands

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

**Mussel Survey (live - sum)**
- 0
- 1 - 4
- 5 - 10
- 11 - 20
- 21 - 30
- 31 - 50
- 51 - 100

**Mitigation Sites**
- Cover Type
  - AG
  - BLH
  - MARSH

**Arkansas River Navigation Study**
- AUGUST 2005

Map Sheet 25

USACE LITTLE ROCK DISTRICT TULSA DISTRICT

1:24,000

AREA routinely dredged - 1995 to 2003
Notch existing dikes (2-4) for flow-through and access

Notch existing dike for access and fish passage

Avoid disposal in AR124.8L-D, utilize in-channel disposal

Avoid disposal near mussels on left bank

Utilize LB disposal and notch modified dikes (4)

Notch existing dikes (2-4) for flow-through and access

Avoid disposal in AR124.8L-D, utilize in-channel disposal
Avoid disposal in aquatic areas, utilize island disposal, (*potential existing tern site)

Notch existing dike (1) at 134.7R for fish passage and access to Mill Bayou

Notch existing revetment (1) at 134.2R

Avoid aquatic disposal on LB, utilize land disposal on island or construct another island on RB, notch longest existing dike for flow-through (*potential existing tern site)
Avoid disposal from 140R u/s to 141R to prevent blockage of opening between islands, utilize 140R d/s to tip of island.

Utilize disposal behind raised and extended L-dikes at 142.0R.

Notch modified dikes (2) at entrance to beaver dam channel for flow-through.

Map Sheet 29

Arkansas River Navigation Study
AUGUST 2005

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
Cover Type
AG
BLH
MARSH

USACE
LITTLE ROCK DISTRICT
TULSA DISTRICT
1:24,000
Construct L-dike or revetment and use disposal to slope and protect bank

Notch modified dikes (7)

Avoid disposal in this area

Relocate gravel areas

Utilize land disposal within cells

* Existing tern island enhance/construct a series of islands along LB where feasible, notch dikes (5), move disposal from LB to RB for excess disposal

**Arkansas River Navigation Study**

JUNE 2005

Map Sheet 30

1:24,000

USACE LITTLE ROCK DISTRICT
Avoid disposal from 149-150L that would block the entrance to backwater area, utilize disposal area d/s of 149L.

Avoid disposal, notch dike at 149R.

Avoid disposal from 150-151L that would block side channel and backwater entrance, construct a series of tern islands where feasible, notch existing dike at 150.8L for fish passage and backwater entrance.
Utilize land disposal within cell at AR154.1L-D

Utilize land disposal within cells at AR154.1L-D

Notch existing revetment (2)
Utilize existing island for disposal and/or construct tern islands

Mussel Survey (live - sum)
0
1 - 4
5 - 10
11 - 20
21 - 30
31 - 50
51 - 100

Mitigation Sites
Cover Type
AG
BLH
MARSH

Arkansas River Navigation Study
JUNE 2005
Map Sheet 33

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

Notch dikes from 161.2-162.2
B revetment out

Disposal Sites - Proposed but Inactive
Disposal Sites - Proposed
Disposal Sites - Proposed

AR 158.8R-DI
NM 159
NM 158
NM 157
NM 160
NM 161

Utilize existing island for disposal and/or construct tern islands
Notch dikes from 161.2-162.2L 161.2

165 - Notch on upstream end of revetment for flow in and out of Plummerville cutoff, and notch raised dikes (3), maintain entrance by periodically dredging

Avoid LB disposal, investigate moving RB revetment out and utilizing disposal as bank stabilization

Avoid disposal in AR166.0R-D

163.6-165.3 - Revetment is needed for bank stabilization

Avoid aquatic disposal, dispose on land within cells, notch existing revetment (4)
Avoid disposal in AR166.0R-D

Avoid aquatic disposal, dispose on land within cells, notch existing revetment (4)

Utilize AR169.4R-D for disposal first, AR169.0L-D second, construct tern islands where feasible

Notch raised dikes at 170.1L and existing dikes at 170.7L and 171L, utilize land within cells for disposal or create/enhance tern island, (*existing tern island)

Notch raised dike at 170.7L and 171L,
utilize land within cells for disposal or create/enhance tern island, (*existing tern island)

Utilize AR169.4R-D for disposal first, AR169.0L-D second, construct tern islands where feasible
Avoid disposal in AR176.2L-D, utilize RB land disposal on Lentz property.

Utilize land disposal on Lentz property, notch dikes 4 feet from top for high water (4).

Notch raised dike at 170.1L and existing dikes at 170.7L and 171L, utilize land within cells for disposal or create/enhance tern island (*existing tern island)

Utilize land disposal on Lentz property, notch dikes 4 feet from top for high water (4)

Avoid disposal in AR176.2L-D, utilize RB land disposal on Lentz property

Utilize land disposal on Lentz property, notch dikes 4 feet from top for high water (4)

AR176.2L-D

Legend

Dredge/Structures
Disposal Sites - Current
Disposal Sites - Approved but Inactive
Disposal Sites - Proposed
Dredge Area - Current
Dredge Area - Proposed
Structures Current
Structures Proposed
Proposed Tern Islands

Gravel Bed Survey
Total acreage = 165 acres
Gravel Beds

Mussel Survey (live - sum)

Mitigation Sites
Cover Type
AG
BLH
MARSH

Arkansas River
Navigation Study
JUNE 2005

Map Sheet 36
1:24,000
Utilize disposal at 179.6R behind recommended revetment

Extend disposal area upstream to raised dike at 181.5R and dispose along bank downstream of dike, notch dikes (2)

Notch existing dike at 180.2R for fish passage and access to backwater
Extend disposal area upstream to raised dike at 181.5R and dispose along bank downstream of dike, notch dikes (2).

Notch existing and raised dikes (8-10) and create a series of islands for braided system and terns.

Avoid disposal in AR186.2L-D, create artificial gravel bar downstream of dikes from 185L-186L.
*Existing least tern island - avoid construction during nesting, limited disposal to avoid elevating island and maintain fish access to backwater, notch revetment and dikes (3-6) for flow-through, fish passage and access

Notch raised revetment (1) and existing dike (1), utilize area upstream at 191R for disposal

New dredge disposal alternative to 189.5L will create elevated vegetated shoreline on Sweeden Island

Relocate gravel areas
Notch existing dikes (5) in AR194.1L-D

Arkansas River Navigation Study
JUNE 2005

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
Cover Type
- AG
- BLH
- MARSH

Disposal Sites - Current
Disposal Sites - Proposed
Dredge Area - Current
(Dredging areas)
Dredge Area - Proposed
Structures Current
Structures Proposed
Proposal Tern Islands

USACE
LITTLE ROCK DISTRICT
TULSA DISTRICT

Map Sheet 40
Arkansas River Navigation Study
JUNE 2005

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
Cover Type
- AG
- BLH
- MARSH

Disposal Sites - Current
Disposal Sites - Proposed
Dredge Area - Current
(Dredging areas)
Dredge Area - Proposed
Structures Current
Structures Proposed
Proposal Tern Islands

USACE
LITTLE ROCK DISTRICT
TULSA DISTRICT

Map Sheet 40
Arkansas River Navigation Study
JUNE 2005

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
Cover Type
- AG
- BLH
- MARSH

Disposal Sites - Current
Disposal Sites - Proposed
Dredge Area - Current
(Dredging areas)
Dredge Area - Proposed
Structures Current
Structures Proposed
Proposal Tern Islands

USACE
LITTLE ROCK DISTRICT
TULSA DISTRICT

Map Sheet 40
Arkansas River Navigation Study
JUNE 2005
Utilize land disposal within cells from 200.8L d/s to 200L, avoid disposal u/s of 200.8L.
Utilize in-channel disposal to keep gravel in-stream.
Avoid any future disposal near mussels
Construct islands along RB if feasible
Avoid disposal near mussels

Construct islands where feasible

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
Cover Type
- AG
- BLH
- MARSH

Arkansas River Navigation Study
JUNE 2005

Map Sheet 47
Avoid disposal near mussels

Construct islands where feasible
NM 227, 229, 230, 233, 233.5, 234

Utilize land disposal in AR 233.0 L-D if needed

Avoid disposal near mussels

Legend
Dredge Structures
Disposal Sites - Current
Disposal Sites - Proposed
Disposal Sites - Proposed

Disposal Area - Current
(Area routinely dredged - 1965 to 2003)

Disposal Area - Proposed

Structures Current
Structures Proposed

Proposed Tern Islands

Gravel Bed Survey
Total acreage = 165 acres

Gravel Beds

Mussel Survey (live - sum)

Mitigation Sites

Cover Type
AG
BLH
MARSH

Arkansas River
Navigation Study
JUNE 2005

Map Sheet 48

1:24,000

1:24,000
No adverse impact, bank stabilization is needed at this area.

Notch existing dike and raised dike (2-3) in AR236.0R-D

Utilize land disposal in AR233.0L-D if needed

236.6L - Dispose in terrestrial site preferred at 236.6L

Create islands where feasible NM 227.2, 229, 230, 233.5, 233.3, 234

No adverse impact, bank stabilization is needed at this area

Utilize land disposal in AR233.0L-D if needed

Construct islands where feasible NM 227.2, 229, 230, 233.5, 233.3, 234
*Existing tern island at 239.5L, avoid disposal in AR238.5L-D, alternately use 240.1-241.0 L, create and/or extend island, notch land side of dikes, do not cut off backwater at 241.1L

Maintain and/or notch existing and modified dikes (3)

Avoid disposal in AR242.2L-D at entrance to Hartman Lake, utilize AR241.8R-D and AR244.0R-D if needed, deepen notch in modified revetment

239RB-Maintain fish access through revetment. Modified revetment along RB will have no adverse impacts

Map Sheet 50
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