

CEMVP-PD-E

MEMORANDUM THRU: CEMVS-OD-T
CEMVS OD-X
CEMVS-OD
CEMVS-RE
CEMVS-EC
CEMVS-OC
CEMVS-DP
CEMVS-DX
CEMVS-DD

FOR Commander, St. Louis District

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design Memorandum No. 6B, Master Plan

1. The attached Rend Lake Project Master Plan supplement is submitted for review and approval (Enclosure 1).
2. This supplement requests approval for the following proposed projects:
 - A. South Marcum Campground.
 - 1) Volunteer Village: Construction of up to 20 volunteer campsites within South Marcum Campground.
 - B. Rend Lake Resort Expansion.
 - 1) Restaurant Expansion: Includes construction of an open air structure over the water to accommodate an additional 250 occupants.
 - 2) Outdoor Dining Area: Includes construction of a large concrete pad to accommodate an additional 30 occupants.
 - 3) Outdoor Event Center: Includes construction of an open air pavilion and green space to accommodate up to 300 occupants.
 - 4) Boatel: Includes construction of a building that will contain approximately twelve double bedroom units and six kitchenette / lounge units.
 - C. Ina Resort / Marina Expansion. Includes the potential future development of the Ina Recreation Area as a resort and marina complex.

D. North Sandusky Day Use

- 1) Disc Golf Course. Expansion of the existing 9 hole disc golf course within North Sandusky Day Use to 18 holes.
 - 2) North Sandusky Shelter 5. Removal of the shelter.
 - 3) North Sandusky Shelter 4. Includes the replacement and relocation of the shelter.
3. The technical review has been completed and the checklist and certification are attached (Enclosure 2).
4. An environmental compliance review will be performed prior to the start of any project proposed in this supplement.
5. It is requested that approval be granted to provide the facilities and complete the actions described in the attached supplement. The general cost estimate, including contingencies, for proposed actions on Corps managed areas is \$214,511.
6. In accordance with ER 1130-2-550, paragraph 3-2 h., approval of this supplement by the District Commander is requested. Please return the attached approval memorandum after signing (Enclosure 3).
7. POC for this effort is Roseana Burick, x8624.

Encls

Kathy MS McQueen
for BRIAN JOHNSON
Chief, Planning and
Environmental Branch

MEMORANDUM THRU: CEMVS-OD-T

FOR: CEMVS-PD-E

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design Memorandum No. 6B, Master Plan.

1. Reference:

- a. ER 1105-2-100, Appendix E, Section VII, Recreation, paragraph E-48, 2002
- b. ER 1130-2-550, Chapter 3: Project Master Plans and Operational Master Plans, 2013
- c. EM 1110-1-400, Engineering and Design, Recreation Facility and Customer Services Standards, 2004
- d. Rend Lake Master Plan, Design Memorandum No. 6B, Big Muddy River, Illinois, 2009
- e. IDNR, Capital Development Board, Bridging Document, CDB#102-777-015

2. Purpose: The purpose of this supplement is to request approval for the addition of new facilities. The addition of said facilities will improve customer safety, customer satisfaction and ultimately increase our visitation. Also, one of the proposed actions will save O & M costs through utilizing volunteers to perform various tasks around the project.

3. Project Description: The proposed actions included in this supplement are described in the following paragraphs. Plates showing the proposed areas are included with this supplement.

A. South Marcum Campground: (Plate 15)

1. Volunteer Village:

a. The proposed action includes constructing up to 20 campsites within South Marcum Campground to serve as campsites for volunteers to live. The campsites will be constructed on either side of the trailhead road within the campground. In order to be eligible to stay on one of the campsites for free, the volunteer will be assigned duties. Examples of these duties may include grass mowing, campsite rehabilitation, shower house cleaning, trash pick-up, visitor center operations or other duties as assigned. Each campsite will have a driveway and parking pad for the camping unit and vehicle(s). The driveway and parking pad will be made of gravel and possibly asphalt or concrete in the future. Each site may have the following services:

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design Memorandum No. 6B, Master Plan.

50 amp electrical service, potable water, sewer hook-up, picnic table, fire ring / grill and lantern hanger. The construction of these campsites will conform to the standards referenced above, as well as EM 385-1-1.

b. Cost Savings: One volunteer per site may provide 40 service hours per week during the recreation season resulting in a savings of \$ 27,453.60 in service costs per year. When all 20 sites are occupied, this will increase to a total savings of \$ 549,072.00 per year.

c. Cost Estimate: The preliminary estimated cost of this project is \$ 100,000 for all 20 campsites. To accommodate increases in costs due to unforeseen site conditions, a 10% contingency has been added and brings the total project cost to \$ 110,000. A field estimate of costs for the proposed actions accompanies this supplement.

B. Rend Lake Resort Expansion: (Plate 18)

1. Restaurant Expansion:

The proposed action includes constructing an open air structure over the water on piers to accommodate 250 occupants. The structure shall be erected adjacent to Reilly's Lounge and Windows Restaurant. Approximately 75% of the seating will be covered and 25% will be in the open deck area. Users will be able to access the structure by land and boating in on the water.

2. Outdoor Dining Area:

The proposed action includes constructing a concrete pad for an outdoor dining area adjacent to Reilly's Lounge and Windows Restaurant that will accommodate 30 occupants. The area will be equipped with tables and chairs for the guests. Landscaping will also be installed around the pad.

3. Outdoor Event Center:

The proposed action includes constructing an outdoor events center with a pavilion and green space to accommodate up to 300 people. The pavilion will be an open air, pre-fabricated, circular design. The pavilion will be equipped with electrical outlets, lights and ceiling fans. The green space will be developed to support the use of the outdoor events center. The following features may be included in this proposed action: pergola area, event lawn, water fountain, ornamental fencing, trees, landscaping, decorative walls, sidewalks and a restroom facility.

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design Memorandum No. 6B, Master Plan.

4. Boatel:

The proposed action includes constructing a boatel building that will be similar to the existing hotel building next to the conference center. The new building shall be located between the existing Flagship boatel and Schooner boatel. The building shall be a simple rectilinear shape with a single loaded corridor located on the interior or exterior. The building shall be either one or two story with stairs located on the interior or exterior. An area for coin operated laundry facilities shall be included. The building shall accommodate approximately twelve double bedroom units and six kitchenette / lounge units. All finishes, exterior and interior shall be of similar design to existing structures.

C. Ina Resort / Marina Expansion: (Plate 11)

1. The proposed action includes the future development of the Ina recreation area as a potential resort and marina complex. Currently there is a harbor area with a boat ramp and courtesy dock that is protected by break waters. This area could potentially be used for a marina. The adjacent lands around the harbor area offer potential building sites for a resort and structures associated with it. Any future expansion and the associated costs will be the responsibility of the developer and / or future concessionaire, not the USACE and would require the completion of a market study.

D. North Sandusky Day Use: (Plate 9)

1. Disc Golf Course:

The proposed action includes the placement of an additional 9 holes to the existing 9 hole disc golf course in the North Sandusky Day Use area at Rend Lake. To complete the course 5 tee boxes will be constructed in addition to the installation of 9 disc golf baskets. For game instruction and course direction, a course map, sign, and individual hole maps shall be created and placed. The cost and maintenance of this course is shared through the partnership of the USACE and The Vern Disc Golf Club. A field estimate of costs for the proposed actions accompanies this supplement.

2. Shelter 5:

a. The proposed action includes the removal of Shelter 5 located in the North Sandusky Day Use. The Shelter is aging and is not located in an ideal location, causing a low number of reservations and usage each year. The cost of maintaining the shelter is more than the revenue.

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design Memorandum No. 6B, Master Plan.

b. Cost Savings: The removal of the current shelter will save \$ 820.00 in contractual services and \$ 4,000.00 by reducing maintenance expenses each year.

3. Shelter 4:

a. The proposed action includes the replacement of Shelter 4 in the North Sandusky Day Use. The present shelter is aging and becoming costly to repair. The new shelter shall be of a similar construction to the present Shelter 8 located at the North Marcum Recreation Area. The new shelter location shall be across the main day use road in the open field area outside of the flood plain. This new location will also allow for more recreating space and available parking needed for today's group sizes.

b. Cost Savings: With the removal of the current shelter, the annual maintenance expense of \$ 4,000.00 will be reduced to a minimal amount. The contract service costs for the proposed shelter should be similar to that of the current shelter.

c. Cost Estimate: The preliminary estimated cost for the removal of the current shelter and construction of the new shelter is \$ 90,000. To accommodate increases in costs due to unforeseen site conditions, a 10% contingency has been added and brings the total project cost to \$ 99,000. A field estimate of costs for the proposed actions accompanies this supplement.

4. Environmental Compliance: All required environmental compliance work will be performed prior to the start of any work mentioned within this supplement.

5. Conclusions: The proposed actions contained here within will be of great benefit to the customers of Rend Lake. Approval of this supplement is recommended.

Field Estimate of Cost - North Sandusky Disc Golf Course

Item	Cost Each	Qty	Unit	Total	w/ 10%
Disc baskets	\$ 350.00	9	EA	\$ 3,150.00	\$ 3,465.00
Tee boxes	\$ 300.00	5	EA	\$ 1,500.00	\$ 1,650.00
Equipment Use	\$ 30.00	12	HR	\$ 360.00	\$ 396.00
				\$ 5,010.00	\$ 5,511.00

Labor will be accomplished by federal inmates.

Field Estimate of Cost - North Sandusky Day Use Shelter 4 Replacement and Shelter 5 Removal


Item	Cost Each	Qty	Unit	Total	w/ 10%
Shelter removal	\$ 10,000.00	2	EA	\$ 20,000.00	\$ 22,000.00
New Shelter	\$ 70,000.00	1	EA	\$ 70,000.00	\$ 77,000.00
				\$ 90,000.00	\$ 99,000.00



Convert 32 Campsites to Full Hookup
 Install Water Hookup to 37 Campsites
 Renovate 100 Campsites
 Install Concrete Campsite Pads on 70 Sites

	Existing	Proposed
Accessible Fishing Pier		1
Courtesy Docks		2
Drinking Water	9	
Electric Campsites	101	
Feebooth Attendant Sites	2	
Full Hookup Campsites	45	
Hiking Trail	1	
Lift Station	6	
Mini Shower Building	3	
Playcourt	1	
Playground	1	
Shower Building	1	
Walk-in Tent Area Campsites	14	
Waterborne Comfort Station	3	
Volunteer Village		1

- Drinking Water
- Feebooth
- Lift Station
- Playcourt
- Playground
- Shower Building
- Waterborne Comfort Station
- Mini Shower Building
- Proposed Future Accessible Fishing Pier
- Hiking Trail
- Proposed Bike Trail
- Roads
- Rend Lake Boundary



US Army Corps of Engineers
St. Louis District

REND LAKE
BIG MUDDY RIVER
MASTER PLAN REVISED
OCTOBER 2009

**South Marcum
Campground**


PLATE 15



Wayne Fitzgerald State Park	Existing	Proposed
Accessible Fishing Pier		1
Bike Trail	1	
Boat Ramp	3	
Camp Site	243	
Concession		1
Courtesy Deck / Fishing Pier	1	
Dwelling Water	36	
Dump Station	1	
Feebooth	1	
Kennel	1	
Maintenance Building	1	
Picnic Shelter	6	
Picnic Site	72	
Playground	4	
Residence	1	
Sewage Treatment Plant	1	
Shower Building	3	
Stable	1	
Swimming Beach		1
Tent Site	28	
Vault Comfort Station	18	
Visitor Center		1
Wayne Fitzgerald Site Office	1	

Rend Lake Resort	Existing	Proposed
Boat Ramp	3	
Boatel	3	1
Cabins	11	
Comfort Station	1	
Courtesy Deck	6	
Fuel Dock	1	
Playground	1	
Resort & Conference Center	1	
Restaurant	1	
Store	1	
Swimming Pool	1	
Tennis Court	1	
Tennis Pier		1
Outdoor Lounge & Dining		1
Outdoor Events Center		1

- Fishing Pier
- Boat Ramp
- Dump Station
- Fee Booth
- Group Picnic Shelter
- Picnic Area
- Playground
- Shower Building
- Vault Comfort Station
- Proposed Swim Beach
- Proposed Visitor Center
- Bike Trail
- Roads
- Rend Lake Boundary



US Army Corps of Engineers
St. Louis District

REND LAKE
BIG MUDDY RIVER
MASTER PLAN REVISED
OCTOBER 2009

**Wayne Fitzgerald
State Park**

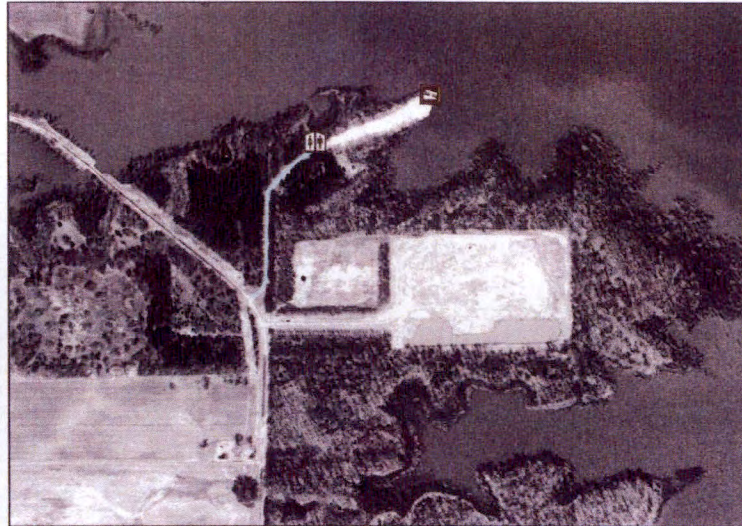
PLATE 18



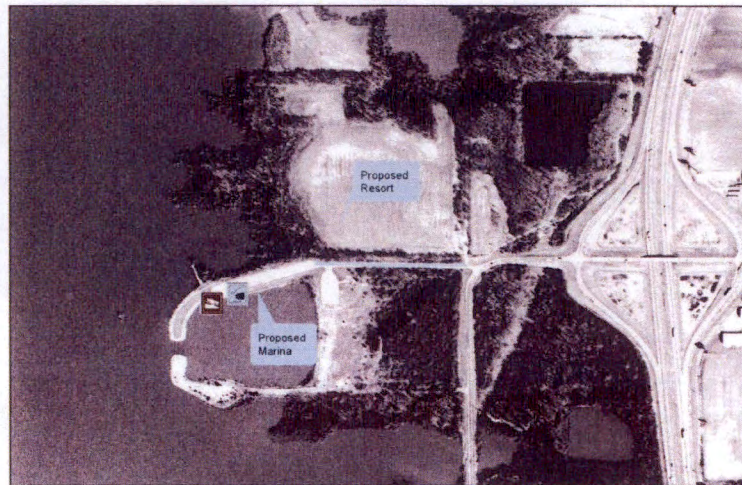
JACKIE BRANCH



TURNIP PATCH












INA




Jackie Branch	Existing	Proposed
Accessible Fishing Pier		1
Boat Ramp	1	
Drinking Water	1	
Fish Cleaning Station		1
Vault Comfort Station		1

Turnip Patch	Existing	Proposed
Boat Ramp	1	
Vault Comfort Station	1	

Ina	Existing	Proposed
Accessible Fishing Pier		1
Boat Ramp	1	
Marina		1
Resort		1

-  Boat Ramp
-  Drinking Water
-  Vault Comfort Station
-  Proposed Fish Cleaning Station
-  Proposed Future Accessible Fishing Pier
-  Proposed Vault Comfort Station
-  Proposed Bike Trail
-  Roads
-  Rend Lake Boundary

0 195 390 780 1,170 1,560 Feet

 US Army Corps of Engineers St. Louis District	REND LAKE BIG MUDDY RIVER MASTER PLAN REVISED OCTOBER 2009
	Jackie Branch, Turnip Patch & Ina Recreation Areas

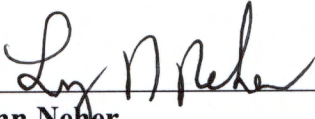
Field Estimate of Cost - South Marcum Volunteer Village

Item	Cost Each	Qty	Total	w/ 10%
Picnic Table	\$ 700.00	20 ea	\$ 14,000.00	\$ 15,400.00
Lantern Hanger	\$ 250.00	20 ea	\$ 5,000.00	\$ 5,500.00
Fire Ring	\$ 350.00	20 ea	\$ 7,000.00	\$ 7,700.00
Elec Pedestal	\$ 200.00	20 ea	\$ 4,000.00	\$ 4,400.00
Rock	\$ 20 per ton	400 tons	\$ 8,000.00	\$ 8,800.00
Elec, water, sewer supplies			\$ 47,000.00	\$ 51,700.00
Timbers	\$ 50.00	200 ea	\$ 15,000.00	\$ 16,500.00
Total: 20 Campsites			\$ 100,000.00	\$ 110,000.00

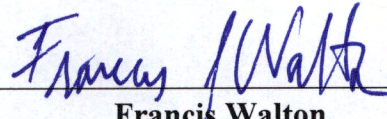
MEMORANDUM FOR RECORD - TECHNICAL REVIEW COMPLETE

SUBJECT: Quality Control Review, Rend Lake, Big Muddy River, Illinois, Supplement No. 1,
Design Memorandum No. 6B, Master Plan.

In accordance with the District's Quality Control Management Plan, the Quality Control Review
for the ~~Rivers Project~~ *Rend Lake* Master Plan Update has been completed. We certify the completion of this
review.



Lynn Neher,
Natural Resources Specialist
Technical Reviewer



Francis Walton,
Outdoor Recreation Planner
Technical Reviewer

Technical Review Checklist

Project: Rend Lake Master Plan Supplement No. 1

Date: 04/07/2014

Item	Yes	No	N/A	Comments
1. AUTHORITY:				
a. Does the activity/project conform with authorized project purposes?	X			
2. SCOPE:				
a. Have all significant resources been adequately considered?	X			
b. Have all foreseeable shore-term and long-term needs been adequately considered?	X			
c. Have implications outside the activity/project area been properly addressed?	X			
3. OBJECTIVE OF MASTER PLAN:				
a. Are master plan objectives clearly stated?	X			
4. COORDINATION:				
a. Was there adequate coordination with stakeholders; and State, local and Federal agencies, and were their views considered in formulating the recommended plan?	X			
b. Has coordination conformed with law, executive orders, and agreements between agencies; and, if not, has the departure been satisfactorily explained?	X			
c. Have the proper preservation, conservation, historical, and scientific interests been consulted, and were their views given adequate consideration during plan development?	X			
5. PUBLIC INVOLVEMENT:				
a. Was public involvement conducted in accordance with EP 1130-2-550, Sect. 3-5 d.?			X	
b. Was adequate public involvement conducted during the planning process to fully inform interested parties and to ascertain their views?			X	
c. Have implications associated with the recommended plan been properly addressed?	X			
d. Has there been adequate response to public concerns?			X	
e. Has the public involvement process been documented, and a discussion of the process prepared?			X	

Technical Review Checklist

Project: Rend Lake Master Plan Supplement No. 1

Date: 04/07/2014

6. POLICY ASPECTS:				
a. Does the proposed project conform to policies established in ER 1165-2-400 (Water Resource Policy and Authorities)?	X			
7. LEGAL/INSTITUTIONAL:				
a. Have the legal and institutional obstacles to project implementation been considered and has a plan been developed to overcome them?	X			
8. REPORT REVIEW:				
a. Does the report format follow the most recent guidance?	X			
b. Have all major technical review issues and resolutions been documented?	X			
c. Is the technical review certification signature page included?	X			
9. FINANCIAL ANALYSIS:				
a. If applicable, does the report state the benefit-cost ratio (BCR) for proposed actions assuming existing conditions prevail over the period of analysis?			X	
b. Has the economic evaluation of recreational development been adequately determined?	X			
10. RECREATION/AESTHETIC:				
a. Have the necessary recreational coordination been conducted in accordance with NFCA of 1944, FPWA of 1965, the WRDA of 1986, the Land and Water Conservation Fund Act, and appropriate Corps regulations?	X			
b. Has the assessment of adverse effects dealing with recreation and aesthetic conditions been considered in each alternative plan?			X	
c. Has coordination with the State natural resources and parks agencies been conducted, and the State Comprehensive Outdoor Recreation Plan (SCORP) been consulted concerning proposed recreational development.	X			
d. Have appropriate NED unit day values been assessed using the Economic Guidance Memorandum, unit day values for recreation? Are current fiscal year rates being used?			X	

CEMVS-DE

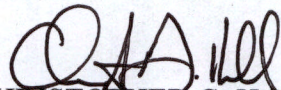
MEMORANDUM FOR CEMVS-PD-E

SUBJECT: Rend Lake, Big Muddy River, Illinois, Supplement No. 1, Design
Memorandum No. 6B, Master Plan

Supplement No. 1 to the Rend Lake Master Plan, January 2014:

Approved X _____

Disapproved _____



CHRISTOPHER G. HALL
COL, EN
Commanding