

CEMVS-PM-E

06 APR 2009

MEMORANDUM THRU

CEMVS-OD-A

CEMVS-OD-T *AMB 4-6-09*

CEMVS OD-X (Raymond) *RR 4-6-09*

CEMVS-OD (O'Bryan) *PA 4-7-09*

CEMVS-RE (Kosel) *DL 4-8-09*

CEMVS-OC (Levins) *4-9-09*

CEMVS-EC (Busse)

CEMVS-DP (Friske)

CEMVS-DX (Zitko)

CEMVS-DD (Bayham)

FOR Commander, St. Louis District

SUBJECT: Supplement No. 3, Carlyle Lake Project Master Plan, Design Memorandum 10, Kaskaskia River, Illinois

1. The attached Carlyle Lake Project Master Plan Supplement is submitted for review and approval (Enclosure 1).
2. This supplement proposes a variety of recreational features based on the use patterns of project visitors and recommendations of the Carlyle project staff.
3. The technical review has been completed and the checklist and certification are attached (Enclosure 2).
4. 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 the proposed new actions is \$467,625 and \$642,187 for the replacement and rehabilitation of facilities.
5. 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).
6. P.O.C. for this effort is Francis Walton, x8487.



THOMAS KEEVIN
Chief, Environmental Branch

Encls

CEMVS-PM-E

MEMORANDUM FOR FILE

SUBJECT: Supplement No. 3, Carlyle Lake Master Plan, Design Memorandum 10, Kaskaskia River, Illinois

1. References:

- a. Carlyle Lake Master Plan, Design Memorandum No. 10, approved 1997 (includes Supplements 1 and 2)
- b. ER 1130-2-550, Project Master Plans and Operational Management Plans: Chapter 3, 15 August 2002. This ER addresses master planning requirements.
- c. EM 1110-1-400, Engineering and Design, Recreation Planning and Design Criteria, Nov 2004. This EM addresses the standards for recreation facilities. All recreation facilities proposed in this supplement will meet the standards described in EM 1110-1-400.
- d. ER 1110-2-400, Design of Recreation Sites, Areas and Facilities, May 1988. This ER includes general concepts on recreation planning.
- e. EM 1110-2-410, Design of Recreation Areas and Facilities, Access and Circulation, Dec 1982. This EM addresses road and trail planning.
- f. ER 1130-2-500, Partners and Support, Dec 1996. This ER addresses funding considerations.
- g. EP 310-1-6a, EP 310-1-6b, Sign Standards Manual, Vols. 1&2.
- h. Carlyle Lake Operational Management Plan, updated 1998, revised 2006.

2. Purpose of Supplement: The purpose of the supplement is to request approval for the following proposed actions that include new facilities, maintenance to existing facilities and revised plans for recreation and management areas. These proposals will improve public health, safety and customer service by providing facilities that meet current standards and customer demand. Visitation and user fees are projected to increase while operational costs would be reduced by eliminating unnecessary facilities.

3. Project Description: Proposed actions included in this supplement are described in the following paragraphs.

a. Harbor Light Bay – Existing Conditions: Harbor Light Bay is a subdivision of approximately 650 lots on Carlyle Lake's west side, south of Keyesport, Illinois. It is located on private ground. The Corps fee title land adjacent to Harbor Light Bay is classified for low-density recreation (LR-3). Some of the land in Harbor Light Bay is Corps flowage easement and has restrictions on development; the roads in Harbor Light Bay are township roads. A natural sand beach is located on Corps land adjacent to the subdivision and has been heavily used by subdivision residents. Due to the public's swimming and boating along the shoreline, parking and access have been provided on private land. Estimates of daily use range into the hundreds on weekends and holidays. No public restrooms are provided.

Public use of the shoreline in the vicinity of Harbor Light Bay is perceived as a liability concern by Corps management. In 2006, the Corps removed old foundations as well as debris from the shoreline that appeared hazardous to visitors. In addition, the Corps installed bollards to prevent unauthorized vehicular access to Corps land.

Proposed Actions: After coordination with the subdivision land owners associations, a Challenge Partnership agreement was initiated. According to the agreement, the Corps will establish a swimming area with a buoy system approximately 75 feet in length. Standard Corps beach regulations regarding alcohol, food and drink will be enforced. The subdivision associations will provide portable toilets at the access location and would operate and maintain the swimming area and restrooms.

b. Coles Creek Recreation Area: (Plate 1)

1.) Day Use Area:

1. Existing Conditions: The 87-acre Coles Creek Recreation Area was developed primarily for camping and day use activities such as swimming, picnicking and boating. The Coles Creek day use area is open year 'round and presently includes 42 picnic sites, 2 vault toilets, a shower building, a fish cleaning station and 2 picnic shelters. Supplement 2 to the current Master Plan obtained approval for the conversion of 9 picnic sites to 9 campsites, the development of a 14' x 600' paved camp road, relocation of a group picnic shelter to the beach and replacement of the vault toilets with a single concrete waterborne restroom.

2. Proposed Actions:

a. Playground: The playground by the day use picnic shelter experiences very little use and will be relocated to an area between the beach and shower house.

b. Vault Toilets: The wooden vault toilet proposed for replacement in Supplement 2 would remain since it is still in good condition. The concrete vault toilet at the boat ramp is in poor condition, does not meet current health and safety or accessibility standards. This comfort station will be replaced with a waterborne facility.

c. Group Camp: Use of the Lotus Group Camp has waned in recent years and the area is low and susceptible to lake flooding. Six mini-shelters for camping, a fire ring and an enclosed group picnic shelter will be relocated from the Lotus Group Camp to the Coles Creek day use area. A camp road and four camp pads with electric, sewer and water hookups will be developed in the new group area for group leaders. Parking is available in the boat ramp parking area and the old beach parking area. Other items will include a paved walk to the beach shower building with a crosswalk at the boat ramp entrance road. The elevation of the mini-shelters will be a minimum 460 ft. NGVD. The existing Lotus Group Camp area will be restored to its natural condition. The relocation will be funded in part through services in lieu of rent for an easement for Trans-Canada Keystone pipeline crossing federal property, which will be executed in FY-09.

2.) Coles Creek Campground:

1. Existing Conditions: The campground includes 148 campsites, 8 waterborne restrooms, 2 playgrounds, 1 shower building and a trailer dump station.

Sewer and water hookups were approved in Supplement 1 for all campsites in Loops 1 and 2. However, only 25 campsites in Loop 1 were actually upgraded to sewer and water hookups. Loop 5 campsites have experienced high use and will require rehabilitation.

2. Proposed Actions:

a. Sewer and Water Hookups: In the Coles Creek Campground, sewer and water hookups will be developed where feasible. In loops 2 through 5, 35 campsites will be upgraded with sewer and water hookups. The benefit-cost ratio is 1.8 to 1 as shown in Table 3.

b. Group Use Designation: Loop 2 will be designated for group use to replace the group use camping at the McNair area that will be designated for individual or family camping. Loop 2 has 16 campsites with impact areas, but usually they are the last to fill. The area will be converted from individual sites to group camping and divided into two group areas of eight sites each.

c. Consolidation of Comfort Stations: Comfort stations in Loops 4 and 5 will be consolidated from 4 to 2 to increase operational efficiency. The replacement facilities will be accessible and, in accordance with Corps standards, be located within 500 feet of all campsites. Centrally located restrooms within each loop would meet this requirement. A sidewalk to each facility will be required.

d. Loop 5 Campsite Rehabilitation: Loop 5 experiences very heavy camping use and the facilities have experienced wear and tear. In addition, the campsites do not meet current camping standards. Thirty sites in this loop will be rehabilitated to prevent more site deterioration and maintain campsite standards and camping revenue.

c. Dam East Recreation Area: (Plate 2)

1.) McNair Group Use Area:

1. Existing Conditions: This area features group picnic and group camping areas as well as a swimming beach, group shelters and a nature trail. Five areas designated A through E, originally made up the group use area as shown on Plate 2. Now the E area designation has been eliminated and this area is included within Area D. A shower building and dump station are located in this area. Approval for 17 Class A campsites with electric was obtained in the current master plan, 12 of those campsites have been constructed in Area D.

2. Proposed Actions:

a. Designate for Family Camping: Except for weekend use, the group areas are not heavily used although these areas are located near the City of Carlyle which is desirable to lake visitors. To meet demand and increase overall use and revenues, all of this area, except for Area C, will be designated for family/individual camping.

b. Area C: This area with 5 walk-in sites and 5 camper sites with electric will remain for group use. To improve use and the camping experience, a loop road to the walk-in sites will be added and a separate entrance will be established directly to the East Spillway road. The existing loop roadway will be blocked near the dump station on the other end and the new entrance will be gated and closed at night to limit vehicular access to the site and disturbance to the campers. Five sites will be equipped with

electric connections. It is expected that visitor use of Area C will increase if these changes are made.

c. Areas A, B, and D: These areas will be designated for family camping to provide more individual/family camping opportunities closer to Carlyle. To replace the group camping eliminated at McNair, Loop 2 in the Coles Creek Campground will be designated for group use. It is expected that more revenue will be generated from the family camping designation at the McNair Recreation Area due to its being located closer to town. Campsites in areas A and B do not meet the current standards for use by modern camping trailers and will be rehabilitated.

d. Boulder Recreation Area: (Plate 4)

1.) Existing Conditions: This area includes a picnic area with 30 sites and a campground with 77 sites. Supplement 2 approved converting 8 picnic sites to campsites with a loop road, converting 10 walk-in campsites to drive-up, and adding 10 campsites with a loop road in the campground. Thirteen sewer and water hookups were approved in current master plan, and 8 have been constructed.

2.) Proposed Action: In addition to the previously approved sewer and water hookups, 35 additional campsite sewer and water hookups will be developed where a lift station is not required (gravity flow). This will eliminate the implementation and operational costs of a lift station. The benefit-cost ratio for 35 additional sewer and water hookups is 1.4 to 1 as show in Table 3.

e. Outlying Access Points: Twenty-four access points to land and water areas are provided around Carlyle Lake. Some areas that are frequently used by lake visitors for hunting and fishing have no access points and the pubic is required to park along the roadway. This presents a potential traffic hazard and compromises project safety. The following locations have been identified as needing an access point for public health and safety, basically, a small turnaround that would accommodate 3 or 4 cars.

1.) Brewster Creek Access at Boulder Road: A 4-car gravel access point is proposed just off the Boulder Road near the railroad trestle at Brewster Creek and would enable access to the Brewster and Gibbs Creeks Multiple Resource Management Area.

2.) Brewster Creek Access: A 3-car access point will be developed at the north end of Cranford Road on the south side of Brewster Creek. This would provide access to a 200-acre bottomland hardwood forest important for wildlife viewing, hunting and fishing.

3.) Turkey Run Access: An access point for 3 cars is proposed where Boulder Road crosses Coles Creek Branch (2500 East).

4.) Prairie View Access: An access point for 3 cars is proposed where Saddle Dam 3 crosses Boulder Road (2500 East).

f. Dam West Recreation Area: (Plate 5)

1.) Existing Conditions: This area includes a 111-site campground including buddy sites, a day use area with beach and an administrative area. This is the most popular Corps recreation area on Carlyle Lake.

2.) Proposed Actions:

a. Dam West Campground: The former location of the amphitheater will be developed into two additional campsites with impact sites. Annual revenues are estimated at \$2592 and annual costs are \$863. The BCR is 3.0 to 1 as shown in Table 4.

b. Lake Walk/Bike Trails:

1. City/Dam West Bike Trail: A bike trail has been designed by the City of Carlyle and funded with IDOT grant monies to connect the City of Carlyle with the Carlyle Lake Visitor Center and lake through a Challenge Partnership. The trail parallels Highway 127 to William Road (1430 N) and then heads east to the Carlyle Lake Visitor Center. This trail will meet all American Association of State Highway and Transportation Officials (AASHTO) standards. A map showing the trail is shown on Plate 5.

2. Shared-Use Path: A shared-use path has been developed from the main dam to the Dam West beach picnic shelter. This shared-use path will be extended from the picnic shelter to the visitor center on the beach (east) side of Lake Road and connect the City/Dam West Bike Trail with the multi-use trail in the West Spillway and the city of Carlyle trail in the General Dean Bridge Recreation Area.

g. West Spillway Recreation Area: (Plate 3)

1.) Existing Conditions: Originally, this area included two waterborne comfort stations and two vault toilets, a group shelter, playground and fish cleaning station. The two waterborne comfort stations were replaced by one centrally located waterborne comfort station. Two vault toilets are located along the spillway road.

2.) Proposed Actions: The southern wooden vault toilet, that is infrequently used, will be removed when no longer serviceable. This will result in an operations and maintenance cost reduction.

h. General Dean Bridge Recreation Area: (Plate 3)

1.) Existing Conditions: Located downstream from the main dam, this 5-acre area features bank fishing, picnicking, a boat ramp and the General Dean Suspension Bridge, a national registered historic landmark.

2.) Proposed Actions:

a. Old Channel Pedestrian Crossing: A pedestrian bridge is proposed to connect the General Dean Bridge and East Spillway recreation areas. The bridge will span approximately 125 feet of the old channel near the boat ramp. Completion of the bridge would provide access for fishermen, hikers and bicyclists to both sides of the old channel and the East and West Spillway recreation areas.

b. City Trail Connection: A trail connection will also be made to the city trail that leads from the General Dean Bridge Recreation Area to the City of Carlyle's park at the old fish hatchery site. A Challenge Partnership with the city of Carlyle will be pursued for this recreational trail. The trail surface will be chip and seal and will be maintained by the Corps and the City according to property ownership along the trail.

i. Special Problems and Constraints:

1.) Snake Environmental Areas: Several areas around the lake are known to provide hibernacula for the massasauga rattlesnake (*Sistrurus c. catenatus*), an Illinois endangered species and a Federal candidate species. Snake hibernacula are known to occur in the East and West Spillway, Hawn Vegetative Management Area, and Eldon Hazlet and South Shore state parks. Known snake hibernacula and future identified hibernacula will be designated as environmental areas and defined in the Carlyle Lake Operational Management Plan. Development in snake hibernacula will be restricted per agreements with the Illinois Department of Natural Resources and U.S. Fish and Wildlife Service.

2.) Hunting Distances: As development occurs and more residences are constructed adjacent to the Corps boundary, the potential exists for public hunting lands at Carlyle Lake to be more constricted due to safety rules for hunting. Special state rules for Carlyle Lake require a 300-foot distance be maintained while hunting near residences. Corps policy will be in accordance with this requirement, but the restricted areas around residences will not be posted. The hunter will be responsible for maintaining the proper distance from a residence.

4. Environmental Compliance: Environmental impacts are being addressed as stated in Table 1. Many of the proposed actions are categorically excluded because they are located in previously disturbed areas like campgrounds. Some will require further environmental review and possibly Section 404 Clean Water Act permits before construction is initiated. Any potential impacts to cultural resources will be addressed prior to project construction by the District Archeologist and lake management staff.

5. Cost Estimate: Field estimates of cost for each project are included in Table 1. A 25 percent contingency was added to the cost of each item for budgeting purposes. Total cost of all new Corps facilities with contingencies is \$467,625 as shown in Table 1. The City/Dam West Bike Trail will cost \$202,600 and be funded by the City. Total cost of replacement/repair/rehab facilities is \$642,187 as shown in Table 2. Benefit-cost calculations are shown in Tables 3 and 4.

6. Conclusions: The proposed projects address the identified needs at the Carlyle Lake project and are appropriate proposals to meet the demand for recreational facilities. The proposed actions are in accordance the Corps regulations and policies and support the Carlyle Lake Master Plan resource objectives.

Table 1 – New Facilities Field Estimate of Cost with Environmental Compliance

| Location | Proposed Action | Purpose, New or O&M | Qty | Unit | Cost | Total Cost | Cost (with 25 % contingency) | Funding Source | Environmental Compliance |
|------------------|---|--------------------------------|-----|------|-----------|------------|------------------------------|---------------------------------|--------------------------|
| Harbor Light Bay | Provide buoys, signage, dome posts, throw ring, etc., at beach. | New / Public health and safety | 1 | job | \$4,900 | \$4,900 | \$6,125 | Challenge Partnership | No EA needed. |
| | Develop shared use path from dam to visitor center to make connection with the proposed City/Dam West bike trail. | New | 1 | job | \$8,500 | \$8,500 | \$10,625 | Corps | Categorically excluded. |
| Dam West | Construct two campsites with impact sites at old amphitheater location in campground. | New/ Increase in revenue | 2 | each | \$2,400 | \$4,800 | \$6,000 | Corps | Categorically excluded. |
| | City/Dam West Bike Trail | New | 1 | job | 202,600 | 202,600 | No contingency. | City/IDOT Challenge Partnership | Categorically excluded. |
| Coles Creek | Add sewer and water hookups to campsites. | New/ Increase Revenue | 35 | each | \$2,000 | \$70,000 | \$87,500 | Corps | Categorically excluded. |
| General Dean | Pedestrian bridge between General Dean Recreation Area and East Spillway Recreation Area. | New | 1 | job | \$200,000 | \$200,000 | \$250,000 | Corps | Categorically excluded. |
| | Construct recreational trail to city trail | New | 1 | job | \$3,900 | \$3,900 | \$4,875 | Corps/City | Categorically excluded. |

Supplement No. 3
 Carlyle Lake Master Plan
 April 2009

| Location | Proposed Action | Purpose, New or O&M | Qty | Unit | Cost | Total Cost | Cost (with 25 % contingency) | Funding Source | Environmental Compliance | |
|------------------------------------|---|-------------------------------|-----|------|---------|------------|------------------------------|------------------|------------------------------------|--|
| Boulder | Develop sewer and water hookups at sites where gravity flow feasible. | New/ Increase Revenue | 35 | each | \$2,000 | \$70,000 | \$87,500 | Corps | Categorically excluded. | |
| Access points | Develop turnaround at Brewster Creek - Cranford road. | New/ Public Health and Safety | 1 | job | \$3,000 | \$3,000 | \$3,750 | Corps | Environmental checklist completed. | |
| | Develop turnaround at Brewster Creek – RR Trestle | New/ Public Health and Safety | 1 | job | \$3,000 | \$3,000 | \$3,750 | Corps | Needs environmental review. | |
| | Develop turnaround at Coles Creek Branch | New/ Public Health and Safety | 1 | job | \$3,000 | \$3,000 | \$3,750.00 | Corps | Needs environmental review. | |
| | Develop turnaround at Saddle Dam 3 and Boulder Road | New/ Public Health and Safety | 1 | job | \$3,000 | \$3,000 | \$3,750 | Corps | Needs environmental review. | |
| NEW FACILITIES COST (CORPS) | | | | | | | | \$467,625 | | |

Table 2 – Repair/Replacement/Rehabilitation Field Estimate of Cost with Environmental Compliance

| Location | Proposed Action | Purpose | Qty | Unit | Cost | Total Cost | Cost (with 25 % contingency) | Funding Source | Environmental Compliance |
|---------------------------------------|--|------------------------------|-----|------|-----------|------------|------------------------------|-------------------|--------------------------|
| Coles Creek | Relocate playground to beach. | O&M | 1 | job | \$12,000 | \$12,000 | \$15,000.00 | Corps | Categorically excluded. |
| | Rehab campsites in Loop 5. | O&M/Increase revenue | 30 | each | \$1500 | \$45,000 | \$56,250.00 | Corps | Categorically excluded. |
| | Construct 2 replacement comfort stations in loops 4 and 5 to replace 4 existing. | Replacement/Reduce Costs | 2 | each | \$85,000 | \$170,000 | \$212,500.00 | Corps | Categorically excluded. |
| | Replace vault comfort station in Day Use Area with waterborne. | Replacement/Reduce Costs | 1 | each | \$85,000 | \$85,000 | \$106,250.00 | Corps | Categorically excluded. |
| | Relocate Lotus Group Camp to day-use area. | Replacement/Increase Revenue | 1 | job | \$105,250 | \$105,250 | \$131,562.00 | Corps/ Partner | Categorically excluded. |
| Dam East | Area C Group Use: Rehab 5 sites with electric, reconfigure access and add loop road and gate. | O&M/ Increase revenue | 5 | each | \$9,000 | \$45,000 | \$56,250.00 | Corps | Categorically excluded. |
| | Rehab campsites in loops A and B. | O&M/ Increase revenue | 20 | each | \$2,500 | \$50,000 | \$62,500.00 | Corps | Categorically excluded. |
| West Spillway | Remove the vault toilet nearest the Gen. Dean suspension bridge when no longer serviceable. | O&M/ Reduces O&M costs | 1 | job | \$1,500 | \$1,500 | \$1,875.00 | Corps | Categorically excluded. |
| TOTAL REPAIR/REPLACEMENT/REHAB | | | | | | | \$642,187.00 | | |

Table 3 – Financial Analysis of Sewer and Water Hookup Implementation

| Coles Creek Sewer and Water Hookups | Days | Occupancy Rate | Total Days Occupied | Daily Increase in Fee | Subtotal Per Campsite | Number of Campsites | Total Annual Revenue | Initial Cost |
|---|------|----------------|---------------------|-----------------------|-----------------------|---------------------|----------------------|--------------|
| Increased fee collection - \$2.00/campsite/hookup | 180 | 0.45 | 81 | \$4 | \$324 | 35 | \$11,340 | \$87,500 |
| Benefits | | | | | \$11,340 | | | |
| Costs | | | | | | | | |
| Increased O&M expenses | | | | | \$500 | | | |
| Annual Construction Cost | | | | | \$5,977 | | | |
| Total Costs | | | | | \$6,477 | | | |
| Benefit/Cost Ratio | | | | | 1.8 | | | |
| Boulder S&W Hookups | | | | | | | | |
| Increased fee collection - \$2.00/campsite/hookup | 180 | 0.35 | 63 | \$4 | \$252 | 35 | \$8,820 | \$87,500 |
| Benefits | | | | | \$8,820 | | | |
| Costs | | | | | | | | |
| Increased O&M expenses | | | | | \$500 | | | |
| Annual Construction Cost | | | | | \$5,977 | | | |
| Total Costs | | | | | \$6,477 | | | |
| Benefit/Cost Ratio | | | | | 1.4 | | | |

Table 4: Financial Analysis of Additional Dam West Campsites

| Dam West Campground Additional Campsites | Days | Occupancy Rate | Total Days Occupied | Daily Increase in Fee | Subtotal Per Campsite | Number of Campsites | Total Annual Revenue | Initial Cost |
|---|------|-------------------|------------------------|-----------------------------|--------------------------|------------------------|-------------------------|--------------|
| Increased fee collection - campsite/hookup | 180 | 0.45 | 81 | \$16.00 | \$1,296.00 | 2 | \$2,592.00 | \$6,000.00 |
| Benefits | | | | | | | | |
| Costs | | | | | \$2,592.00 | | | |
| Increased O&M expenses | | | | | \$300.00 | | | |
| Annual Construction Cost | | | | | \$563.49 | | | |
| Total Costs | | | | | \$863.49 | | | |
| Benefit/Cost Ratio | | | | | 3.0 | | | |

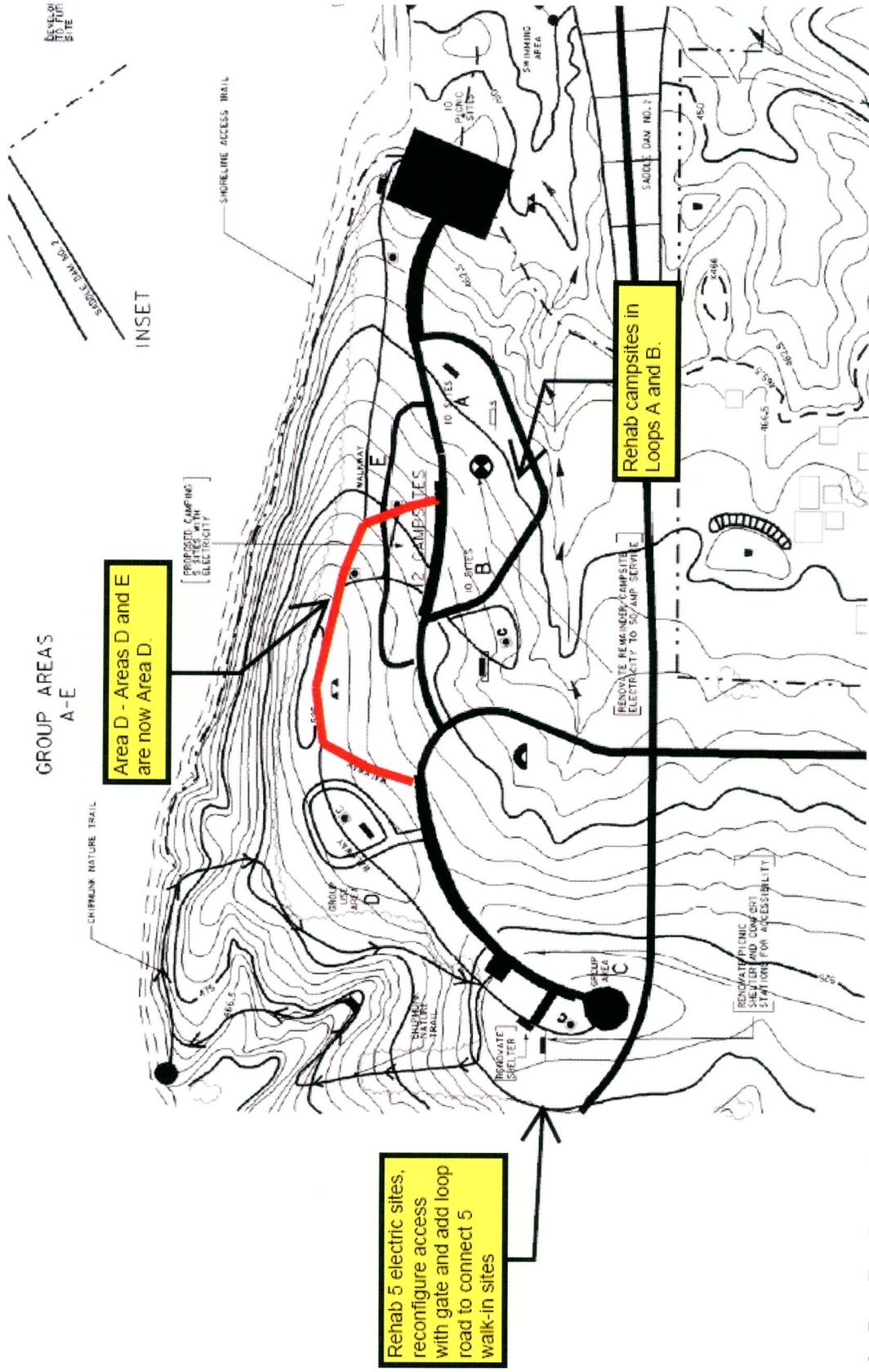


Plate 2 – Dam East Recreation Area

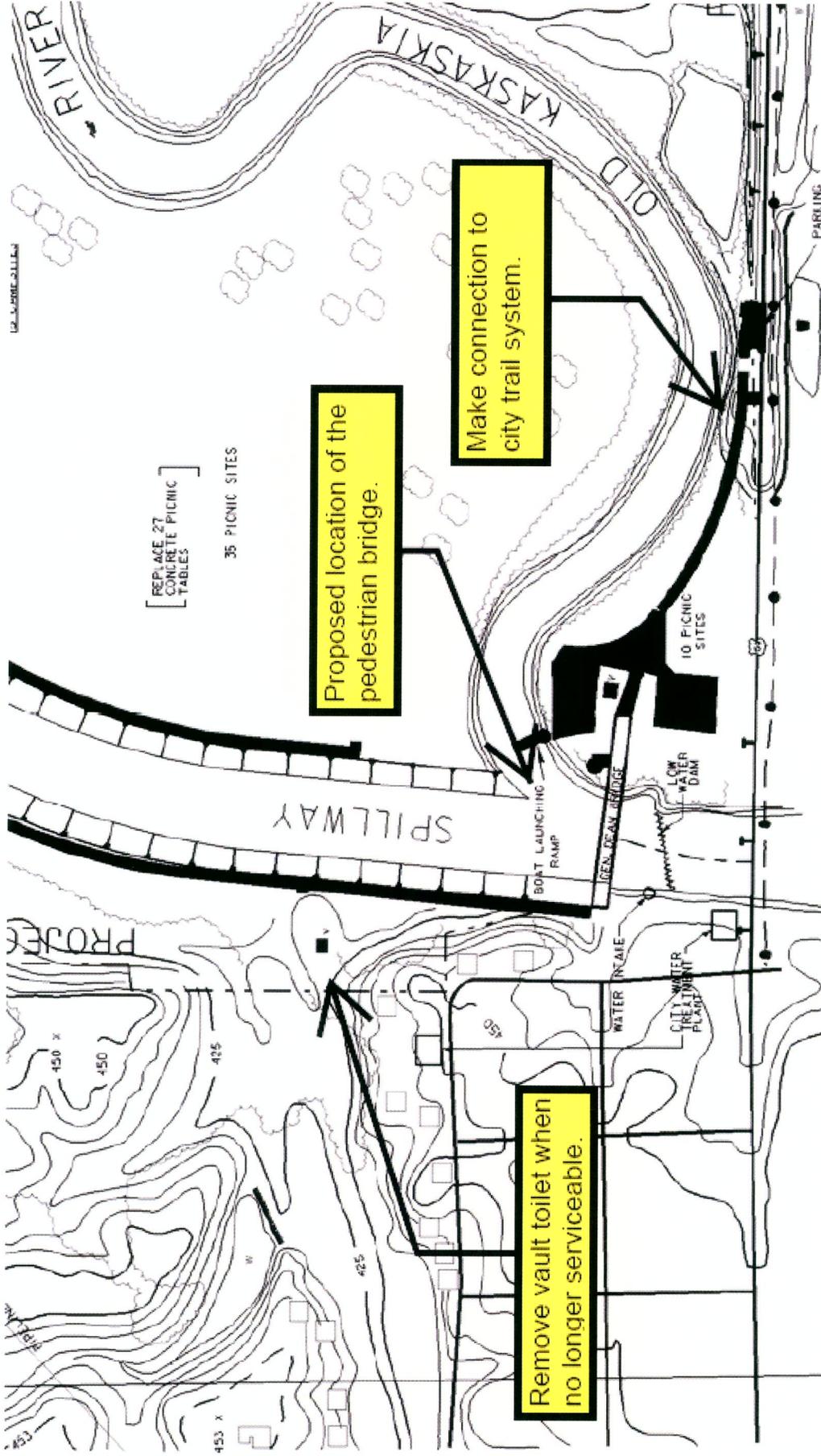


Plate 3 – General Dean Bridge and West Spillway Recreation Areas

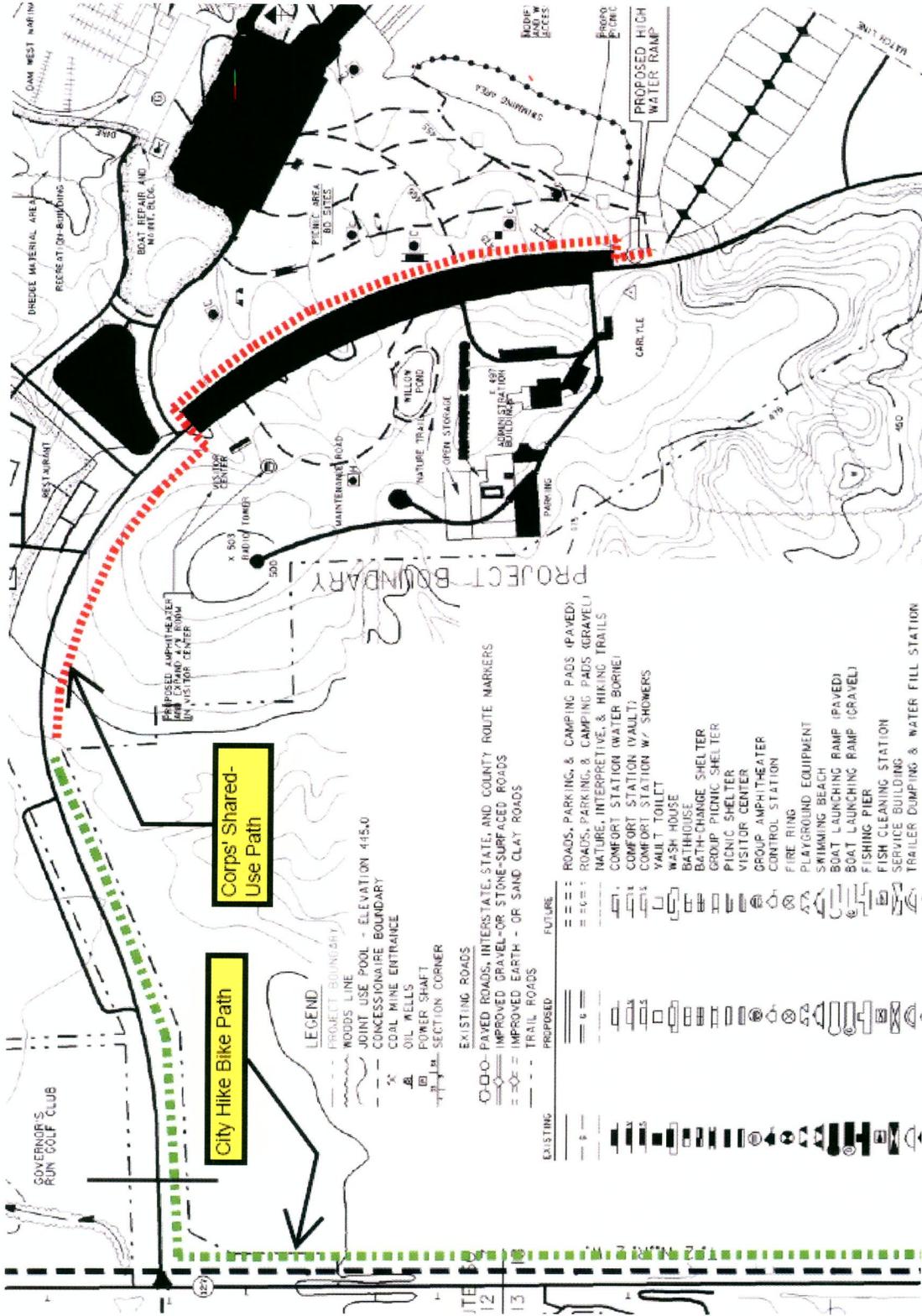


Plate 5 - Dam West Recreation Area

CEMVS-PM-E

Date: 19 DEC 2008

MEMORANDUM FOR RECORD - TECHNICAL REVIEW COMPLETE

SUBJECT: Quality Control Review, Carlyle Lake Master Plan Update

In accordance with the District's Quality Control Management Plan, the Quality Control Review for the Carlyle Lake Master Plan Supplement has been completed and all comments are resolved. We certify the completion of this review.

Francis Walton

Francis Walton,
Outdoor Recreation Planner
Technical Reviewer

Cynthia Jackson

Cynthia Jackson,
Asst. Operations Manager Wappapello Lake
Technical Reviewer

Enc 12

Technical Review Checklist

Project: Carlyle Lake Master Plan Supplement

Date: 19 DECEMBER 2008

| Item | Yes | No | N/A | Comments |
|--|-----|----|-----|----------|
| GENERAL | | | | |
| 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 short-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 the scoping process in accordance with EP 1130-2-550, Sect. 3-4 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 | | | |
| c. Has the public involvement process been documented, and a discussion of the process prepared? | X | | | |

Technical Review Checklist Cont'd

| Item | Yes | No | N/A | Comments |
|--|-----|----|-----|----------|
| 6. POLICY ASPECTS: | | | | |
| a. Does the proposed project conform to policies established in ER 1165-2-400 (Water Resource Policies and Authorities) | X | | | |
| 8. LEGAL/INSTITUTIONAL: | | | | |
| a. Have the legal and institutional obstacles to project implementation been considered and has a plan been developed to overcome them? | X | | | |
| 9. 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 | | | |
| 10. 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 | | | |
| 11. RECREATION/AESTHETIC | | | | |
| a. Have the necessary recreational coordination been conducted in accordance with the NFCA of 1944, FPWA of 1965, and 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 Department of Culture, Recreation, and Tourism been conducted, and the State Comprehensive Outdoor Recreation Plan been consulted concerning proposed recreational development. | X | | | |
| d. Has appropriate NED unit day values been assessed via Economic Guidance Memorandum, Unit Day Values for recreation? Are current fiscal year rates being used? | X | | | |