SILVER LAKE DAM - Barnard
INSPECTIONS 11.01

State of Vermont
Department of Environmental Conservation
Dam Safety and Hydrology Section
103 South Main Street
Waterbury VT, 05671 – 0511

DAM INSPECTION CHECKLIST

Dam _____ Town _____ DEC ID. No. _____

Inspection Date _____ Time Start _____ Time End _____

Owner _____ Hazard Class _____

Address _____

_____ Phone Number _____

PERSONS PRESENT AT TIME OF INSPECTION

Inspection Party _____

Others _____

CONDITIONS AT TIME OF INSPECTION

Weather: Today _____ Previous _____

Ground Conditions _____ Other _____

Water Level _____ w/r/t _____

Remarks _____

_____

_____

_____

Condition of Dam

- ☐ Good
- ☐ Fair
- ☐ Poor

Recommendations _____

_____

_____

_____

State of Vermont
Department of Environmental Conservation
Dam Safety and Hydrology Section
103 South Main Street
Waterbury VT, 05671 – 0511

DAM INSPECTION CHECKLIST

Dam Silver Lake Town Barnard DEC ID. No. _____

Inspection Date 5/28/10 Time Start 1:00pm Time End 2:00

Owner DEC Hazard Class 1

Address _____

_____ Phone Number _____

PERSONS PRESENT AT TIME OF INSPECTION

Inspection Party SB, ST

Others _____

CONDITIONS AT TIME OF INSPECTION

Weather: Today Sunny, 70's Previous dry

Ground Conditions dry Other _____

Water Level 2.5' w/r/t below right corner of inlet structure

Remarks _____

Condition of Dam
- ☐ Good
- ☐ Fair
- ☐ Poor

Recommendations _____

CONDITION OF MAIN STRUCTURE

Type of Construction (Check all that apply):

- ☐ Earthen Embankment
- ☑ Gravity Concrete
- ☐ Stone Masonry
- ☐ Timber Crib
- ☐ Other

Remarks _____

Upstream Face or Slope:

1. Vegetative Cover
   - ☐ Heavy Brush
   - ☐ Minor Brush
   - ☐ High Grass
   - ☐ Well Mown Grass

2. Erosion beaching on left abutment

3. Animal Burrows _____

4. Slope Protection concrete

5. Debris _____

6. Slumps, Slides, Cracks cracking above left conduit for e/s

7. Structural _____

8. Abutments:
   Right
   Left
9. Alignment
10. Movement
11. Remarks

Downstream Face or Slope

1. Vegetative Cover
   - ☐ Heavy Brush
   - ☐ Minor Brush
   - ☐ High Grass
   - ☐ Well Mown Grass
2. Erosion
3. Animal Burrows
4. Slope Protection rock
5. Debris lots of brush & woody

6. Seepage

7. Toe Drains

8. Piping/Boils

9. Slumps, Slides, Cracks rock has drifted to the bottom + toe

10. Scour

11. Structural

12. Alignment

13. Movement

14. Abutments:
Right brush

Left brush

15. Remarks

Crest

1. Vegetative Cover
   - ☐ Heavy Brush
   - ☐ Minor Brush
   - ☐ High Grass
   - ☑ Well Mown Grass

2. Erosion no

3. Evidence of Overtopping ☐ Yes ☑ No

4. Animal Burrows

5. Debris

6. Use of Crest ☑ Road ☐ Trail ☐ Other

7. Settlement, Cracks some holes near edge of concrete, looks more like digging than settling

8. Structural good

9. Abutments
   - Left good
   - Right good

10. Remarks

CONDITION OF OUTLET WORKS

Principal Spillway

1. Type:
   a) ☑ Drop Inlet ☐ Spillway ☐ Other
   b) ☑ Controlled ☐ Uncontrolled

Remarks Shoplogs in good condition

2. Approach Channel clear

3. Control Section good

4. Intake Structure Good

5. Trash Racks
   ☑ Clear ☐ Clogged with Debris ☐ None

Remarks very minor debris

6. Anti-Vortex Devices none

7. Outlet Structure Good

8. Discharge Channel some brush + debris

9. Conduit very good condition

10. Remarks

Emergency Spillway

Type:

a) ☐ Drop Inlet ☐ Spillway ☑ Other

b) ☐ Controlled ☑ Uncontrolled

Remarks _____

1. Approach Channel Clear

2. Control Section Stoplogs in fair condition, spalling around four conduit pipes

3. Discharge Channel lots of debris, rest of d/s slope, rock

4. Intake Structure _____

5. Outlet Structure _____

6. Conduit corroding, pitting + holes

7. Remarks _____

Drawdown Facilities

❑ Gate ❑ Drain ❑ Appurtenance ❑ Other

1. Condition_____

_____

2. Remarks_____

_____

_____

_____

Operation and Maintenance

_____

_____

_____

_____

Completed By

Initials_____

Title_____

Date_____

VERMONT

Vermont Department of Environmental Conservation
Facilities Engineering Division
103 South Main Street, Laundry Bldg. [phone] 802-241-4240
Waterbury, VT 05671-0511 [fax] 802-244-4516

Agency of Natural Resources

MEMORANDUM

TO: For the Record
FROM: Stephen Bushman, P.E., Dam Safety Engineer
DATE: June 25, 2010
SUBJECT: Inspection of Silver Lake Dam, Barnard, VT

On May 28, 2010 Stephen Bushman, P.E., and Shawn Thompson made a routine periodic inspection of the Silver Lake Dam located in Barnard, Vermont, State Identification Number 11.01. The dam is owned by the Vermont Department of Environmental Conservation. Several photographs and field notes were taken during the inspection. The last inspection of the dam was on July 6, 2009. This report updates previous observations and records additional information.

OVERALL CONDITION

The overall condition of the dam is fair.

DOWNSTREAM HAZARD CLASSIFICATION

The dam is a Class 1, "high hazard" dam.

JURISDICTION

Since the dam impounds more than 500,000 cubic feet, any alteration, reconstruction or breaching would require prior approval from the Department under provisions of 10 VSA Chapter 43.

RECOMMENDATIONS FOR OWNER

1. The woody vegetation should be removed from the downstream slope and from the contact areas.
2. The metal grate cover support on the drop inlet should be replaced.
3. Replenish the rock on the downstream slope to help make the slope more regular.
4. Monitor erosion on the left upstream abutment and add rock if necessary.
5. Slipline the existing emergency spillway outlet pipes.
6. Repair the concrete headwall, especially around the outlet pipes.

Note: A capital repair project will be completed before October 1, 2010 to address items 1 through 6.

INSPECTION

The inspection of the dam was conducted on May 28, 2010 between 1300 and 1430 hours. The weather was sunny, the temperature was in the 70's and the ground was dry. The water level was 2.5 feet below the right corner of the inlet structure. The following was observed:

1. Dam Structure

   a. Upstream Face: The upstream concrete face was generally in good condition, except for vertical cracking above each conduit and concrete loss around the outlet pipes as noted below. Soil erosion was noted on the left abutment at the end of the concrete.

   b. Downstream Slope: The downstream slope was covered in a moderate amount of woody vegetation and debris. Some minor erosion due to road runoff at the left contact was observed. The slope was covered in grass and rock, which has become irregular. The rock has settled over the years and accumulated towards the toe. Minor amounts of scour have developed at the outlets to the spillway pipes. Large trees are becoming established on the slope.

   c. Crest: The top of the dam is a paved town road. Some transverse and longitudinal cracking in the asphalt was observed. There was some minor settlement and erosion observed immediately downstream of the concrete face of the dam where the emergency spillway pipes are located. This is most likely due to road runoff and foot traffic from recreationists.

   d. Toe: The toe area was well protected with large rip rap. There was woody vegetation growing on it.

2. Principal Spillway

   a. Approach Channel: The approach channel was clear.

   b. Control Section: The control section was clear of debris.

   c. Conduit: The conduit was in good condition.

   d. Trash Rack: The trash rack was in fair condition with minor debris blocking it. The grates on the top were rusted and the locking plate closest to the crest is corroded.

   e. Stop Logs: The stop logs were in good condition.

   f. Discharge Channel: There was some minor brush and debris in the discharge channel.

3. Emergency Spillway

   a. Approach Channel: The approach channel was clear of debris.

   b. Control Section: The concrete in the stop log bays was eroded to the aggregate; there were voids in the concrete in several locations. There were numerous cracks in the concrete and concrete loss around the perimeter of each conduit in the headwall. The conduits were starting to corrode.

c. Discharge Channel: The discharge channel had moderate debris, but it was not blocking the flow. The flow chose its own path through the rip rap on the downstream slope.

4. Drawdown Facility:

a) The drawdown gate was not operated, but has been recently. Based on the recent operation, the gate and operator are in good condition.

HYDROLOGY AND HYDRAULICS

Silver Lake has a 1.7 square mile drainage area with a surface area of 84 acres. At normal lake levels the storage area is 1410 acre-feet, at maximum water levels the storage is 1710 acre-feet.

State of Vermont
Department of Environmental Conservation
Dam Safety and Hydrology Section
103 South Main Street
Waterbury VT, 05671 – 0511

DAM INSPECTION CHECKLIST

Dam Silver Lake Town Barnard DEC ID. No. _____

Inspection Date 7/6/04 Time Start 0300 Time End _____

Owner DEC Hazard Class 1

Address _____

_____ Phone Number _____

PERSONS PRESENT AT TIME OF INSPECTION

Inspection Party [illegible] _____

Others _____

CONDITIONS AT TIME OF INSPECTION

Weather: Today Sunny 80's Previous _____

Ground Conditions _____ Other _____

Water Level _____ w/r/t Just over stop logs on spillway

Remarks 41.53 piezometer on road

_____

_____

_____

Condition of Dam

- ☐ Good
- ☐ Fair
- ☐ Poor

Recommendations _____

_____

_____

_____

CONDITION OF MAIN STRUCTURE

Type of Construction (Check all that apply):

- ☐ Earthen Embankment
- ☑ Gravity Concrete
- ☐ Stone Masonry
- ☐ Timber Crib
- ☐ Other

Remarks _____

Upstream Face or Slope:

1. Vegetative Cover
   - ☐ Heavy Brush
   - ☐ Minor Brush
   - ☐ High Grass
   - ☐ Well Mown Grass

2. Erosion _____

3. Animal Burrows _____

4. Slope Protection Concrete

5. Debris _____

6. Slumps, Slides, Cracks Some cracking in concrete above each culvert for e/s [illegible]

7. Structural _____

8. Abutments:
   Right
   Left vegetation in concrete could be removed

9. Alignment

10. Movement

11. Remarks

Downstream Face or Slope

1. Vegetative Cover
   ☑ Heavy Brush ☑ Minor Brush ☑ High Grass ☐ Well Mown Grass

2. Erosion

3. Animal Burrows

4. Slope Protection vegetation, rock

5. Debris large and small woody vegetation, brushing needed to edge of rock

6. Seepage

7. Toe Drains

8. Piping/Boils

9. Slumps, Slides, Cracks

10. Scour

11. Structural

12. Alignment

13. Movement

14. Abutments:

Right

Left

15. Remarks

Crest

1. Vegetative Cover
   - ☐ Heavy Brush
   - ☐ Minor Brush
   - ☐ High Grass
   - ☐ Well Mown Grass

2. Erosion _____

3. Evidence of Overtopping ☐ Yes ☑ No

4. Animal Burrows _____

5. Debris _____

6. Use of Crest ☑ Road ☐ Trail ☐ Other

7. Settlement, Cracks Cracks in road, some settlement of soil at concrete wall above e/s 3.5' w, d.

8. Structural _____

9. Abutments
   Left _____
   Right _____

10. Remarks _____

CONDITION OF OUTLET WORKS

Principal Spillway

1. Type:
   a) ☑ ~~Drop Inlet~~ ☐ Spillway ☐ Other
   b) ☐ Controlled ☑ ~~Uncontrolled~~

Remarks _____

_____

2. Approach Channel Clear

_____

3. Control Section _____

_____

4. Intake Structure concrete in good shape, grate good except plate closest to crest.

5. Trash Racks
   ☐ Clear ☑ ~~Clogged with Debris~~ ☐ None

Remarks minor debris

6. Anti-Vortex Devices _____

7. Outlet Structure good

_____

8. Discharge Channel some debris

_____

9. Conduit good

_____

10. Remarks _____

_____

_____

Emergency Spillway

Type:

a) ☐ Drop Inlet ☐ Spillway ☐ Other

b) ☐ Controlled ☐ Uncontrolled

Remarks _____

1. Approach Channel Clear

2. Control Section ~~good~~, v->

3. Discharge Channel ~~edges~~ d/s slope goes into rock

4. Intake Structure edges of conduit need regrouting, spalling around culvert, vertical crack above each culvert in concrete

5. Outlet Structure water discharges onto d/s slope and makes its own path

6. Conduit starting to corrode

7. Remarks _____

Drawdown Facilities

☑ Gate ☐ Drain ☐ Appurtenance ☐ Other

1. Condition good

2. Remarks gate operated twice a year in the spring to raise and lower the ball to lower

Operation and Maintenance

Completed By

Initials_____

Title_____

Date_____

State of Vermont AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Facilities Engineering Division
103 South Main Street
Waterbury, VT 05671-0406

Phone: 802-241-3454
Fax: 802-241-3273

MEMORANDUM

To: Chuck Eddy, Forest Parks and Recreation

From: Robert Finucane, P.E., Dam Safety Engineer

Date: June ~~16~~ 21, 2004

Subject: Inspection of the Silver Lake Dam, Barnard.

Attached is a memorandum reporting on an inspection made by this Department under provisions of Title 10 of the Vermont Statutes Annotated, Section 1105 of the Silver Lake Dam, Barnard, Vermont. The dam is owned by the Department of Environmental Conservation.

The dam was inspected on June 9, 2004 and is characterized as being in good condition. Recommendations for maintenance and surveillance of the dam are included in the report. The dam is found to be large enough to be subject to the permit requirements of Title 10 of the Vermont Statutes Annotated, Chapter 43.

If you have any questions or if we can be of any assistance, please give me a call at 241-3454.

State of Vermont AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Facilities Engineering Division
103 South Main Street
Waterbury, VT 05671-0406

Phone: 802-241-3454
Fax: 802-241-3273

MEMORANDUM

TO: Chuck Eddy, Forest Parks and Recreation

FROM: Robert B. Finucane, P.E., Dam Safety Engineer

DATE: June 16, 2004

SUBJECT: Inspection of Silver Lake Dam, Barnard

On June 9, 2004, the writer and Laura Allen made a routine inspection of Silver Lake Dam in Barnard, Vermont, State Identification Number 11.01. The dam is owned by the Department of Environmental Conservation. Photographs and field notes were taken. The inspection was carried out under the provisions of Title 10 of the Vermont Statutes Annotated, Section 1105. The dam was last inspected June 12, 2003. This report updates those observations and records additional information.

OVERALL CONDITION:

The overall condition of the dam is good. The erosion of the concrete emergency spillway headwall that was noted in June of 2003 has continued and should be fixed.

RECOMMENDATIONS FOR THE OWNER:

1) Clearing and brushing of the downstream slope and the left and right abutments is needed.

2) Fill/patch the holes and erosion in the concrete around the corrugated galvanized metal pipes on the emergency spillway headwall.

3) Replace the corrugated galvanized metal pipe emergency spillways.

BACKGROUND AND DESCRIPTION OF THE DAM:

The dam consists of a concrete cut-off and facing walls constructed in 1968. These walls are placed against and doweled to existing concrete and masonry walls constructed as early as 1806. The concrete walls are supported by an earthen embankment with a granular filter layer and riprap on the downstream face. This embankment also serves as the foundation for a town highway, the North Road, running along the crest of the dam. The embankment was reconstructed in 1984.

During normal operating conditions, the lake level is controlled by use of stop planks at the inlet structure and flashboards on the emergency spillway. The emergency spillway consists of four 36-inch corrugated galvanized metal pipes that discharge onto the downstream riprapped face. These spillway pipes are grouted into the concrete cutoff wall at the upstream face of the dam.

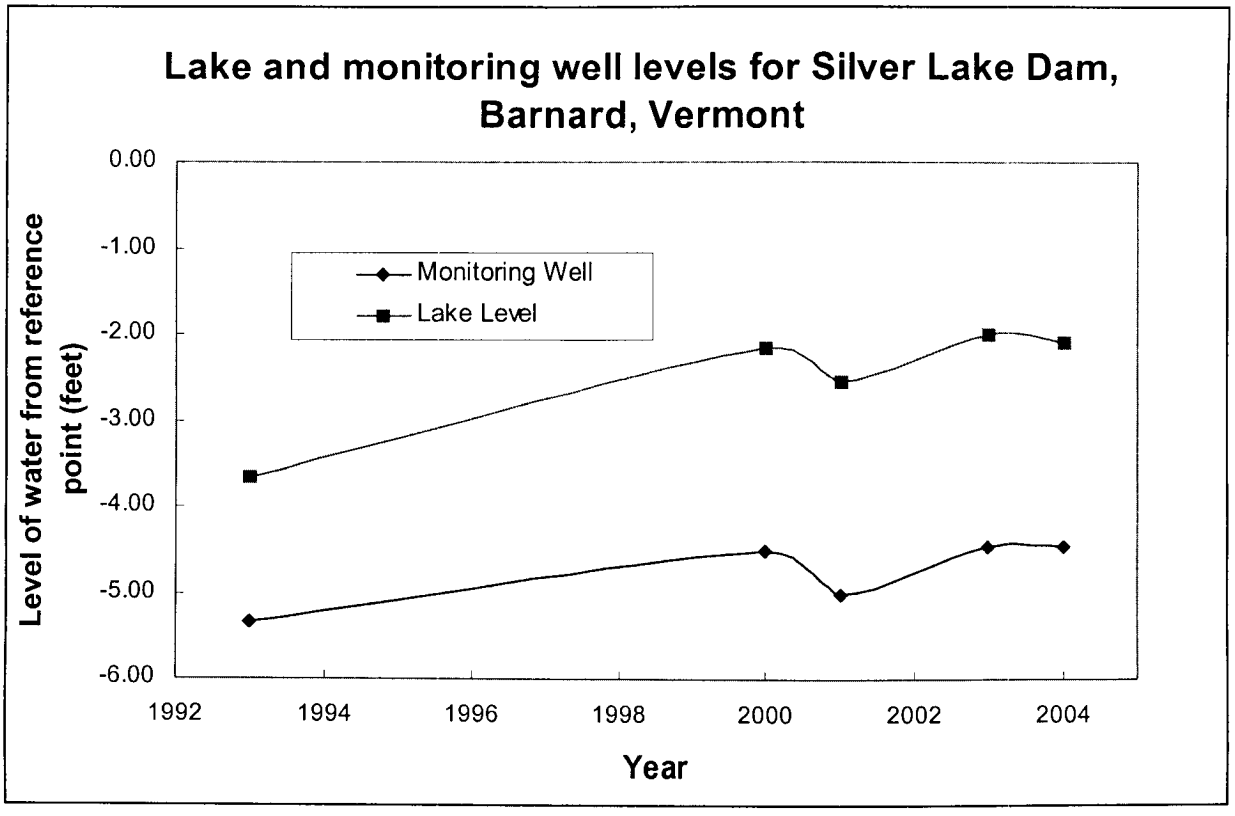
The principle spillway outlet consists of one 30-inch diameter cement-lined ductile iron pipe, the upstream end of which is grouted into the wall of a box drop inlet structure that is part of the concrete cutoff wall. The outlet discharges onto the riprap on the downstream face of the dam. Flow into the intake structure is controlled by stop logs and a 24 inch by 36 inch sluice gate.

As a safety precaution to assure stability, two observation wells have been installed for the purpose of monitoring water levels in the embankment.

INSPECTION:

The inspection of this dam was conducted on June 9, 2004. The weather was hazy and warm. The ground was dry. The water level was 2.1 feet below the top of the upstream right corner of the drop inlet. The principal stoplogs were set at 2.03 feet below the top of the iron on the concrete structure. The water level was 0.7 inches over the leftmost emergency spillway stoplog and the rightmost was 0.1 inches above the water. The water level in the monitoring well was 4.45 feet below the road surface. The chart and graph below show monitoring well and lake levels for the years where they were recorded from 1993 to the present and the difference between them. All of the well levels were measured with respect to the road surface, and the lake levels were measured with respect to the top of the surveyor's square at the upstream right-hand corner of the drop inlet structure.

Date	Monitoring well level, ft	Lake level, ft	Difference between lake and well level, ft
10/26/1993	-5.34	-3.65	1.69
5/17/2000	-4.50	-2.15	2.35
5/15/2001	-5.00	-2.55	2.45
6/12/2003	-4.46	-2.00	2.46
6/9/2004	-4.45	-2.10	2.35



1. Principle Spillway:

   a) Trash Rack and Drop Inlet: The drop inlet was in good condition. There was very minor debris caught in the trash rack.

   b) Gate Operator: The gate operator was not tested during the inspection.

   c) Outlet Pipe: The outlet pipe was good for line and grade and was in good condition.

2. Embankment Section:

a) Upstream Concrete Face: The concrete face is in good condition. The concrete around the emergency spillway pipes is still deteriorating.

b) Crest: The crest has good line and grade. There was some erosion due to runoff in the grass and sandy area on either side of the road.

c) Downstream Slope: The downstream slope was irregular and was overgrown with brush and vines. The grading of the slope is irregular due to some slumping.

d) Abutments:

1) Left: The abutment was firm and dry. Highway drainage pipes were discharging a small amount of water.

2) Right: The right abutment was firm, and dry. There are several trees and a lot of brush along the abutment.

3. Emergency Spillway:

a) Weirs: The wooden stoplogs were in good condition. The three left stoplogs were slightly lower than the right. This was measured as well as visible because the water was flowing over the left side and not the right.

b) Outlet Pipes. Water was flowing through each pipe, but more so through the left most pipe. The asphalt lining in the pipes has been chipped way on the bottom half of the pipes, and there is rust with no perforations along the bottom of each pipe. The line and grade for the pipes was generally good.

HYDROLOGY AND HYDRAULICS

Silver Lake has a 1.7 square mile drainage area with a surface area of 84 acres. At normal lake levels the storage area is 1410 acre-feet, at maximum water levels the storage is 1710 acre-feet.

DOWNSTREAM HAZARD CLASSIFICATION:

The dam is a Class 1, "high hazard" dam.

JURISDICTION:

Since the dam impounds more than 500,000 cubic feet, any alteration, reconstruction or breaching would require prior approval from the Department under provisions of Title 10 of the Vermont Statutes Annotated, Chapter 43.

State of Vermont
Department of Environmental Conservation
Dam Safety Section
103 South Main Street
Waterbury, VT 05671-0407

DAM INSPECTION CHECK LIST

Dam Silver Lake DEC ID. No. _____

Town Barnard NatDam ID No. VT000 _____

Owner DEC Inspection Date 6/9/04

Address _____ Time 11:00

_____ Last Inspected/by 6/12/2003 RBF

Telephone _____ Last D/S Haz Class 1

Right of Entry Yes

PERSONS PRESENT AT TIME OF INSPECTION (Name and Organization)

Inspection Party RBF + [illegible] D

_____

Others Chuck [illegible], Parks Manager

I. Conditions at Time of Inspection

Weather: Today [illegible] Previous [illegible]

Ground Conditions [illegible] Other _____

Water Level [illegible] w/r/t surveyors [illegible] right [illegible]

Accessibility _____

Reservoir Area _____

Remarks _____

QWK well 4.45 ft

_____

_____

_____

_____

II. Condition of Main Structure

Type of Construction concrete

A. Upstream Face or Slope

1. Vegetative Cover concrete no

2. Erosion no

3. Slumps, Slides, Cracks nothing serious
mild pattern cracks

4. Animal Burrows no

5. Slope Protection no slope

6. Debris no

7. Structural sound

8. Abutments good

9. Alignment good

10. Movement

11. Remarks

B. Downstream Face or Slope and Toe

1. Vegetative Cover brush and vines needs to be removed covering most spots w/debris
2. Erosion normal
3. Slumps, Slides, Cracks some slumps in rock face
4. Animal Burrows no, hard to see with brush and vine cover
5. Slope Protection 6-8 ft of rock/riprap
6. Debris yes logs branchs etc seems to be mostly from runoff of road
7. Seepage didn't see any
8. Piping 2 highway drainage pipes
9. Boils —
10. Toe Drains —
11. Scour —
12. Structural sound
13. Abutments wooded and brush, need to clear

14. Alignment steep grading has slumped some in places of discharge

15. Movement

16. Remarks Need to clear vegetation (vines, bushes) Burn?

C. Top of Dam

1. Vegetative Cover little grass on either sid of road and guard vail

2. Erosion some runoff soil erosion not serious

3. Evidence of Overtopping no

4. Settlement, Cracks no

5. Animal Burrows no

6. Debris not signficant

7. Use of crest (road, trail, etc.) road with guard rails on both sides paved 2 lane

8. Structural solid

9. Abutments good

10. Alignment good

11. Remarks

III. Condition of Outlet Works

A. Principal Spillway

Type intake was drop inlet

Controlled or Uncontrolled stop log (2.03)
water is flowing under stop log

1. Approach Channel lake

2. Transition

3. Control Section water flowing into intake from under stop log

4. Discharge Channel channel ~~through~~ over riprap on downstream bank

5. Intake Structure good

6. Conduit

7. Outlet Structure 3 ft c pipe

8. Trash Racks good, small wire bar, weeds caught

9. Anti-vortex Devices

10. Stop Logs, Flash Boards _____

_____

11. Remarks _____

_____

_____

B. Emergency Spillway

Type 4 corrugated pipes

_____

Controlled or Uncontrolled stop log

1. Approach Channel _____

rt (2.0') left (0.7 below water surface)

2. Transition _____

_____

3. Control Section stop logs & drainage ditch over left end and not right

4. Discharge Channel 4 pipes ~~run~~ water runs down riprap

5. Remarks There should be ~~running~~ water some through emergency channel too often not design is a lot of use

C. Drawdown Facilities, Gates, Drains, Appurtenances, Etc.

1. Drawdown Facility _____

_____

Condition _____

_____

2. Other Gates, Drains, Appurtenances _____

_____

Condition _____

_____

3. Remarks _____

_____

_____

_____

IV. Operation and Maintenance

_____

_____

_____

_____

V. Inspection Summary

A. Information Obtained

1. Photographs Yes

2. Dimensions _____

3. Other _____

B. Additional Information Needed

_____

_____

_____

C. Overall Condition of Dam

Good needs cleaning [illegible]

_____

_____

_____

VI Owner Interview Yes No When/where _____

(A) Plans, inspection reports, photos, other records? _____

_____

(B) History of dam _____

_____

(C) Performance, floods, operation, etc. _____

_____

(D) Property lines, access, water rights, etc. _____

_____

(E) Other Information _____

_____

VII. General Comments

_____

_____

_____

_____

Check List completed by Name Laura Allen

Title Intern

Date 6/9/04

Attachments: _____

_____

_____

State of Vermont AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Facilities Engineering Division
103 South Main Street
Waterbury, VT 05671-0411

Phone: 802-241-3450
Fax: 802-241-3273

MEMORANDUM

To: **Chuck Eddy, Forest Parks and Recreation**

From: **Stephen Bushman, P.E., Dam Safety Engineer**

Date: **June 3, 2005**

Subject: **Inspection of the Silver Lake Dam, Barnard.**

Attached for your information is a memorandum reporting on an inspection made by this Department under provisions of Title 10 of the Vermont Statutes Annotated, Section 1105 of the Silver Lake Dam, Barnard, Vermont. The dam is owned by the Department of Environmental Conservation.

The dam was inspected on June 2, 2005 and is characterized as being in fair condition. Recommendations for maintenance and surveillance of the dam are included in the report. The dam is found to be large enough to be subject to the permit requirements of Title 10 of the Vermont Statutes Annotated, Chapter 43.

If you have any questions or if we can be of any assistance, please give me a call at 241-3450.

State of Vermont **AGENCY OF NATURAL RESOURCES**
Department of Environmental Conservation
Facilities Engineering Division
103 South Main Street
Waterbury, VT 05671-0411

Phone: 802-241-3450
Fax: 802-241-3273

MEMORANDUM

TO: For the Record

FROM: Stephen Bushman, P.E., Assistant Dam Safety Engineer

DATE: June 3, 2005

SUBJECT: Inspection of Silver Lake Dam, Barnard

On June 2, 2005, Stephen Bushman and Lauren Klonsky made a routine inspection of Silver Lake Dam in Barnard, Vermont, State Identification Number 11.01. The dam is owned by the Department of Environmental Conservation. Photographs and field notes were taken. The inspection was carried out under the provisions of Title 10 of the Vermont Statutes Annotated, Section 1105. The dam was last inspected June 9, 2004. This report updates those observations and records additional information.

OVERALL CONDITION:

The overall condition of the dam is fair. The erosion of the concrete emergency spillway headwall that was noted in June of 2003 has worsened and should be repaired.

RECOMMENDATIONS FOR THE OWNER:

1) Clearing and brushing of the downstream slope and the left and right abutments is necessary.

2) Monitor the small seep in the downstream embankment near the right abutment. The seep was not noted in previous inspections.

3) Fill/patch the holes, cracks, and erosion in the concrete around the corrugated galvanized metal pipes on the emergency spillway headwall.

4) Monitor the scouring under the emergency spillway pipes and replenish the rock as necessary.

5) Future monitoring well water level measurements should be taken from the top of the piezometer casing and not the road surface.

BACKGROUND AND DESCRIPTION OF THE DAM:

The dam consists of a concrete cut-off and facing walls constructed in 1968. These walls are placed against and doweled to existing concrete and masonry walls constructed as early as 1806. The concrete walls are supported by an earthen embankment with a granular filter layer and riprap on the downstream face. This embankment also serves as the foundation for a town highway, the North Road, running along the crest of the dam. The embankment was reconstructed in 1984.

Pipes are grouted into the concrete cutoff wall at the upstream face of the dam. During normal operating conditions, the lake level is controlled by use of stop logs at the inlet structure and flashboards on the emergency spillway. The emergency spillway consists of four 36-inch corrugated galvanized metal pipes that discharge onto the downstream riprapped face.

The principle spillway outlet consists of one 30-inch diameter cement-lined ductile iron pipe, the upstream end of which is grouted into the wall of a box drop inlet structure that is part of the concrete cutoff wall. The outlet discharges onto the riprap on the downstream face of the dam. Flow into the intake structure is controlled by stop logs and a 24 inch by 36 inch sluice gate.

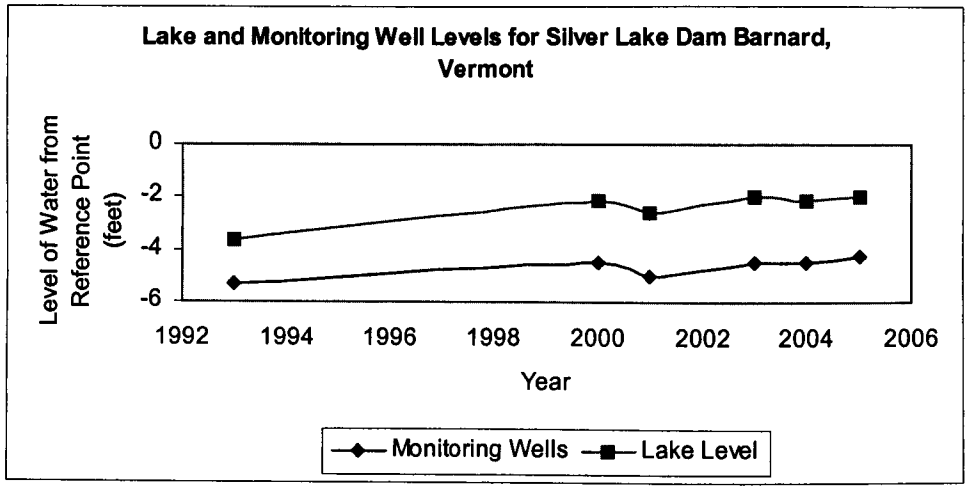
As a safety precaution to assure stability, two observation wells have been installed for the purpose of monitoring water levels in the embankment.

INSPECTION:

The inspection of this dam was conducted on June 2, 2005. The weather was clear with temperatures in the 70s. The ground was dry. The water level was 2.0 feet below the top of the upstream right corner of the drop inlet. The principal stop logs were set at 2.15 feet below the right upstream corner of the drop inlet. The emergency stop logs were set at 2.05 feet below the to upstream corner of the drop inlet on the emergency spillway channel on the right closest to the drop inlet box. The water level in the monitoring well was 4.29 feet below the road surface. The chart and graph below show monitoring well and lake levels for the years where they were recorded from 1993 to the present and the difference between them. All of the well levels were measured with respect to the road surface, and the lake levels were measured with respect to the top of the surveyor's square at the upstream right-hand corner of the drop inlet structure.

Date	Monitoring well level, ft	Lake level, ft	Difference between lake and well level, ft
10/26/1993	-5.34	-3.65	1.69
5/17/2000	-4.50	-2.15	2.35
5/15/2001	-5.00	-2.55	2.45
6/12/2003	-4.46	-2.00	2.46
6/9/2004	-4.45	-2.10	2.35
6/2/2005	-4.29	-2.00	2.29

Note: It appears from the photos that the road was repaved between the 2004 inspection and the 2005 inspection. Therefore, the 2005 measurement may not reflect the same datum.



1. Principle Spillway:

   a) Trash Rack and Drop Inlet: The drop inlet was in good condition. There was very minor debris caught in the trash rack.

   b) Gate Operator: The gate operator was not tested during the inspection but appeared sound.

   c) Outlet Pipe: The outlet pipe was good for line and grade and was in good condition.

2. Embankment Section:

   a) Upstream Concrete Face: The concrete face is generally in good condition. The loss of concrete around the emergency spillway pipes has worsened since the last inspection.

   b) Crest: The crest has good line and grade. There was some erosion due to runoff in the grass and sandy area on either side of the road. Some transverse cracks were noted in the pavement near the centerline of the dam and near the valve box. The road appears to have been repaved since the 2004 inspection.

c) Downstream Slope: The downstream slope was irregular and was overgrown with brush and vines. The grading of the slope is irregular due to some slumping. Some debris and trash was observed below the pipes. This did not appear to be obstructing flow.

d) Abutments:

1) Left: The abutment was firm and dry. Highway drainage pipes were discharging a small amount of water.

2) Right: The right abutment was generally firm and dry. One small low volume seep with clear water was noted about midslope near the right abutment. This seep has a surveyor's stake nearby but was not noted in the previous inspection report. There are several trees and brush along the abutment on the downstream side.

3. Emergency Spillway:

a) Weirs: The wooden stoplogs were in good condition.

b) Outlet Pipes. Water was flowing through all four emergency spillway pipes and the primary spillway pipe. The pipes appeared to be in good condition. The line and grade for the pipes was generally good. Scouring is occurring below the outlet of the pipes.

HYDROLOGY AND HYDRAULICS

Silver Lake has a 1.7 square mile drainage area with a surface area of 84 acres. At normal lake levels the storage area is 1410 acre-feet, at maximum water levels the storage is 1710 acre-feet.

DOWNSTREAM HAZARD CLASSIFICATION:

The dam is a Class 1, "high hazard" dam.

JURISDICTION:

Since the dam impounds more than 500,000 cubic feet, any alteration, reconstruction or breaching would require prior approval from the Department under provisions of Title 10 of the Vermont Statutes Annotated, Chapter 43.

State of Vermont
Department of Environmental Conservation
Dam Safety Section
103 South Main Street
Waterbury, VT 05671-0407

DAM INSPECTION CHECK LIST

Dam SEVEN LAKE DEC ID. No. _____

Town BARNARD NatDam ID No. VT000 _____

Owner DEC Inspection Date 6-2-05

Address _____ Time 1000 - 1115

_____ Last Inspected/by _____

Telephone _____ Last D/S Haz Class _____

Right of Entry _____

PERSONS PRESENT AT TIME OF INSPECTION (Name and Organization)

Inspection Party SPB LK

_____

Others NONE

I. Conditions at Time of Inspection

Weather: Today CLEAR, BREEZY, 70s Previous CLEAR

Ground Conditions DRY Other _____

Water Level -2.0 w/r/t RT U/S CORNER OF DROP INLET (EL. 1308)

Accessibility -2.15 STOPLOG AT RT U/S CORNER OF D.I.
-2.05 STOPLOG AT RT EL. SPILLWAY NEXT TO D.I.

Reservoir Area _____

Remarks 18T 0691763 1337 24'A

4844301

-4.29 BELOW ROAD SURFACE

VALVE BOX COVER MAY BE DOWN ≈ 1" FROM LAST YEAR DUE TO PAVEMENT

II. Condition of Main Structure

Type of Construction CONCRETE WALL

A. Upstream Face or Slope

1. Vegetative Cover CONCRETE WALL, MINOR VEG. AT ABUTMENTS (GRASS)

2. Erosion SLIGHT AMOUNT AT LT ABUTMENT NEAR H.O CODE DUE TO USER ACCESS TO WATER

3. Slumps, Slides, Cracks MINOR CRACKS AT CONSTRUCTION JOINTS. 3rd JOINT ON RIGHT END SLIGHTLY DEEPER. + CRACKS OVER EM. SPILLWAY PIPES SLIGHTLY DEEPER

4. Animal Burrows NN

5. Slope Protection NONE

6. Debris

7. Structural

8. Abutments

9. Alignment

10. Movement

11. Remarks

B. Downstream Face or Slope and Toe

1. Vegetative Cover GRASS, BRUSH UPPER 1/3 TYPE I STONE LOWER 2/3

2. Erosion NN

3. Slumps, Slides, Cracks NN

4. Animal Burrows NN BUT MINOR PATHS ON UPPER 1/3

5. Slope Protection TYPE I STONE LOWER 1/3 - DISCHARGE CHANNEL FOR EM SPILLWAY - FLOWING TODAY

6. Debris SOME BELOW PIPES

7. Seepage SMALL SEEP IN RT ABUTMENT - ALREADY STAKED CLEAR

8. Piping

9. Boils

10. Toe Drains

11. Scour

12. Structural

13. Abutments RT ABUTMENT BRUSHY

14. Alignment GOOD

15. Movement

16. Remarks NEED TO KEEP BRUSH UNDER CONTROL PLUS ABUTMENTS

C. Top of Dam

1. Vegetative Cover ASPHALT - TOWN HIGHWAY

2. Erosion NN

3. Evidence of Overtopping NN

4. Settlement, Cracks TRANSVERSE CRACKS IN PAVEMENT NEAR CENTER & NEAR VALVE BOX

5. Animal Burrows NN

6. Debris NN

7. Use of crest (road, trail, etc.) TOWN ROAD - PAVED

8. Structural

9. Abutments GOOD

10. Alignment _____

11. Remarks _____

III. Condition of Outlet Works

A. Principal Spillway

Type CONCRETE DI

Controlled or Uncontrolled CON.

1. Approach Channel MINOR DEBRIS ON TRASH RACK

2. Transition _____

3. Control Section GENERALLY GOOD, SOME MINOR CRACKING ON TOP OF STRUCTURE

4. Discharge Channel _____

5. Intake Structure GENERALLY GOOD

6. Conduit GOOD COND

7. Outlet Structure NONE - BEDDED ON STONE, GOOD COND, NO SCOUR

8. Trash Racks GOOD COND.

9. Anti-vortex Devices _____

10. Stop Logs, Flash Boards _____

11. Remarks METAL GATE GOOD COND, BUT METAL STRIP ON D/S END (LOCK PLATE) IS DETERIORATED AND SHOULD BE REPLACED

B. Emergency Spillway

Type (4) 36" ACGMP

Controlled or Uncontrolled CON

1. Approach Channel CLEAN - POND - HEADWALL GROUT SEVERELY ERODED, SOME LOSS - SHOULD REPLACE THIS PART

2. Transition GOOD WITH MINOR DEBRIS

3. Control Section PIPES GENERALLY GOOD, ASPHALT COATING GONE ≈ ½ DEP, SOME RUST AT FLOW LINE

4. Discharge Channel WELL ROCKED, MINOR DEBRIS & LITTER

5. Remarks SOME SCOUR AT OUTLETS - APPEARS TO BE CONSTANT FLOW. SCOUR BACK ABOUT 1-2' IN FROM OUTLET

C. Drawdown Facilities, Gates, Drains, Appurtenances, Etc.

1. Drawdown Facility SLUICE GATE. NOT OPERATED

Condition GOOD SLIGHTLY RUSTED

2. Other Gates, Drains, Appurtenances _____

_____

Condition _____

_____

3. Remarks _____

_____

_____

_____

IV. Operation and Maintenance

_____

_____

_____

_____

V. Inspection Summary

A. Information Obtained

1. Photographs _____
2. Dimensions _____
3. Other _____

B. Additional Information Needed

_____

_____

_____

C. Overall Condition of Dam

_____

_____

_____

_____

VI Owner Interview Yes No When/where _____

(A) Plans, inspection reports, photos. other records? _____

_____

(B) History of dam _____

_____

(C) Performance, floods, operation, etc. _____

_____

(D) Property lines, access, water rights, etc. _____

_____

(E) Other Information _____

_____

VII. General Comments

_____

_____

_____

_____

Check List completed by Name _____

Title _____

Date _____

Attachments: _____

_____

_____

VERMONT

Vermont Department of Environmental Conservation
Facilities Engineering Division, Dam Safety and Hydrology Section
103 South Main Street, [phone] 802-241-3450
Waterbury, VT 05671-0511 [fax] 802-244-4516

Agency of Natural Resources

MEMORANDUM

TO: For the Record

FROM: Stephen Bushman, P.E., Dam Safety Engineer SB

DATE: June 1, 2007

SUBJECT: Inspection of Silver Lake Dam, Barnard.

On May 30, 2007 Stephen Bushman, P.E., Brian Terhune, And Henry Nyenbrink made a routine periodic inspection of the Silver Lake Dam located in Barnard, Vermont, State Identification Number 11.01. The dam is owned by the Vermont Department of Environmental Conservation. Several photographs and field notes were taken during the inspection. The last inspection of the dam was on July 6, 2006. This report updates previous observations and records additional information.

OVERALL CONDITION

The overall condition of the dam is fair.

DOWNSTREAM HAZARD CLASSIFICATION

The dam is a Class 1, "high hazard" dam.

RECOMMENDATIONS FOR OWNER

1. The woody vegetation should be removed from the downstream slope and from the contact areas.
2. The woody debris at the emergency spillway outlet and the wood chips on the right contact area should be removed.
3. A plan should be developed to repair the concrete in the emergency spillway stop log bays and on the upstream headwall.
4. The metal grate on the drop inlet should be replaced.

5. Replenish the rock on the downstream slope to help make the slope more regular.

DAM DESCRIPTION AND HISTORY

The dam consists of a concrete cut-off and facing walls constructed in 1968. These walls are placed against and doweled to existing concrete and masonry walls constructed as early as 1806. The concrete walls are supported by an earthen embankment with a granular filter layer and riprap on the downstream face. This embankment also serves as the foundation for a town highway, the North Road, running along the crest of the dam. The embankment was reconstructed in 1984.

Pipes are grouted into the concrete cutoff wall at the upstream face of the dam. During normal operating conditions, the lake level is controlled by use of stop logs at the inlet structure and flashboards on the emergency spillway. The emergency spillway consists of four 36-inch corrugated galvanized metal pipes that discharge onto the downstream rip rapped face.

The principle spillway outlet consists of one 30-inch diameter cement-lined ductile iron pipe, the upstream end of which is grouted into the wall of a box drop inlet structure that is part of the concrete cutoff wall. The outlet discharges onto the riprap on the downstream face of the dam. Flow into the intake structure is controlled by stop logs and a 24 inch by 36 inch sluice gate.

As a safety precaution to assure stability, two observation wells have been installed for the purpose of monitoring water levels in the embankment.

INSPECTION

The inspection of the dam was conducted on May 30, 2007 between 1000 and 1030 hours. The weather was clear, the temperature was in the 60's and the ground was dry. The water level was noted at 2.5 feet below the right upstream corner of the drop inlet. The water level in the monitoring well was measured and compared to past years. The measurement is taken from the top of the conduit. The following was observed:

1. Embankment Section

a) Upstream Face: The upstream face was generally in good condition. There was some minor erosion on the left abutment side, which was noted before. The concrete face was in good shape except for some minor cracking along the construction joints and around the inlet of the conduit.

b) Downstream Slope: The downstream slope was covered in a moderate amount of woody vegetation and debris. Some minor erosion at the left contact was observed. The slope was covered in grass and rock, which has become irregular. Minor amounts of scour have developed at the outlets to the spillway pipes.

c) Crest: The top of the dam is the paved road for the town. Some transverse and longitudinal cracking in the asphalt was observed.

d) Toe: The toe area was well protected with large rip rap. There was moderate woody vegetation growing on it.

e) Abutments: The left contact area had some minor erosion due to roadside runoff. The other abutment areas were in good condition.

2. Principal Spillway

a) Approach Channel: The approach channel had some minor leaves blocking the trash rack.

b) Control Section: The control section was clear of debris.

c) Conduit: The conduit was in good condition.

d) Trash Rack: The trash rack was in fair condition. The grates on the top were in a rusted and corroded condition and should be replaced.

e) Stop Logs: The stop logs were in good condition.

3. Emergency Spillway

a) Approach Channel: The approach channel were generally clear, except for the second from the right had some brush in it.

b) Control Section: The concrete in the stop log bays was worn, there were voids in the concrete in several locations. There were numerous cracks in the concrete and concrete loss where the conduits contacted the headwall.

c) Discharge Channel: The discharge channel had moderate debris, but it was not blocking the flow.

4. Drawdown Facility:

a) The drawdown facility was not operated. It seemed to be in good condition, but needs to be greased and kept maintained.

HYDROLOGY AND HYDRAULICS

Silver Lake has a 1.7 square mile drainage area with a surface area of 84 acres. At normal lake levels the storage area is 1410 acre-feet, at maximum water levels the storage is 1710 acre-feet.

JURISDICTION

Since the dam impounds more than 500,000 cubic feet, any alteration, reconstruction or breaching would require prior approval from the Department under provisions of 10 VSA Chapter 43.

Please don't hesitate to call me at 241-3450 if I can be of further assistance.

State of Vermont
Department of Environmental Conservation
Dam Safety Section
103 South Main Street
Waterbury, VT 05671-0407

DAM INSPECTION CHECK LIST

Dam STEVEN LAKE DEC ID. No. _____

Town BARNARD NatDam ID No. VT000 _____

Owner VT FPR Inspection Date 5/30/07

Address _____ Time 1000 - 1020

_____ Last Inspected/by _____

Telephone _____ Last D/S Haz Class _____

Right of Entry _____

PERSONS PRESENT AT TIME OF INSPECTION (Name and Organization)

Inspection Party SPB, BAT, -M

_____

Others _____

I. Conditions at Time of Inspection

Weather: Today Clear, 60s Previous Clear, 60s

Ground Conditions Dry Other _____

Water Level -0.6' w/r/t OVER RT END OF STOP-LOG (2.5' BELOW RT WS CONCRETE PIER

Accessibility _____

Reservoir Area _____

Remarks -4.75' MONITORING WELL FROM TOP OF REC

_____

_____

_____

_____

GRAY CAMP
PO Box 51
TAFTSVILLE VT 05073

II. Condition of Main Structure

Type of Construction Gravity Concrete, Earth Em.

A. Upstream Face or Slope

1. Vegetative Cover None Plan

2. Erosion LT Aquiment U/S Mines

3. Slumps, Slides, Cracks NN

4. Animal Burrows NN

5. Slope Protection None

6. Debris NN

7. Structural Good Concrete Face Good, Except As Noted at E/S Contours

8. Abutments

9. Alignment

10. Movement

11. Remarks

B. Downstream Face or Slope and Toe

1. Vegetative Cover GRASS, ANNUALS, FEW SMALL TREES UPPER 1/3, NOT MUCH LOWER 2/3

2. Erosion MINOR @ LT CONTACT

3. Slumps, Slides, Cracks NN, BUT IRREGULAR

4. Animal Burrows ONE OLD ANIMAL PATH LOCATED MID SECTION ON EARTH EMB SECTION

5. Slope Protection GRASS, MUCH

6. Debris MODERATE AMT D/S OF S/S OUTLETS ON ROCK

7. Seepage @ AT CONTACT FROM ABUTMENT PIPES MINOR EROSION BELOW OUTLET

8. Piping

9. Boils NN

10. Toe Drains NONE ON DAM

11. Scour MINOR AT OUTLETS OF PIPES

12. Structural SLIGHTLY IRREGULAR

13. Abutments GOOD

14. Alignment Good

15. Movement

16. Remarks Remove trees, keep mowed. Repair rock d/s of c/s outlet

C. Top of Dam

1. Vegetative Cover Pavement, earth shoulders

2. Erosion NN

3. Evidence of Overtopping NN

4. Settlement, Cracks Cracking on asphalt transverse & longitudinal

5. Animal Burrows NN

6. Debris One log at end, most likely placed there (not flow)

. Use of crest (road, trail, etc.) Town Road

Structural Good

Abutments Good

10. Alignment _____

11. Remarks _____

III. Condition of Outlet Works

A. Principal Spillway

Type Concrete d/c

Controlled or Uncontrolled Concontrolled

1. Approach Channel Minor leaves debris trash rock

2. Transition Clean

3. Control Section Clean

4. Discharge Channel _____

5. Intake Structure Good Cond, Minor encroachment on entrance

6. Conduit 30" DI Flowing 0.3' Good Cond

7. Outlet Structure _____

8. Trash Racks Good Cond, Gates on top Poor, Should be replaced.

9. Anti-vortex Devices _____

10. Stop Logs, Flash Boards GOOD COND

11. Remarks

B. Emergency Spillway

Type 4 CONDUITS CMP 36" SOME RUST IN FLOW LINE.

Controlled or Uncontrolled

1. Approach Channel 2nd FROM AT THE DAM, NEW CLEAN

2. Transition

3. Control Section

4. Discharge Channel MODERATE DEBRIS U/S, NOT BLOCKING FLOW, [illegible]

5. Remarks CONCRETE AS PREVIOUSLY MENTIONED, CRACKING, SPALLS

C. Drawdown Facilities, Gates, Drains, Appurtenances, Etc.

1. Drawdown Facility NOT OPERATED, NEEDS TO BE CHECKED

Condition GOOD, BUT NEEDS MAINTENANCE

2. Other Gates, Drains, Appurtenances _____

_____

Condition _____

_____

3. Remarks _____

_____

_____

_____

IV. Operation and Maintenance

_____

_____

_____

_____

V. Inspection Summary

A. Information Obtained

1. Photographs _____
2. Dimensions _____
3. Other _____

B. Additional Information Needed

_____

_____

_____

C. Overall Condition of Dam

_____

_____

_____

_____

VI Owner Interview Yes No When/where _____

(A) Plans, inspection reports, photos. other records? _____

_____

(B) History of dam _____

_____

(C) Performance, floods, operation, etc. _____

_____

(D) Property lines, access, water rights, etc. _____

_____

(E) Other Information _____

_____

VII. General Comments

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Check List completed by Name _____

Title _____

Date _____

Attachments: _____

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_____

VERMONT

Vermont Department of Environmental Conservation *Agency of Natural Resources*
Facilities Engineering Division, Dam Safety and Hydrology Section
103 South Main Street, [phone] 802-241-3450
Waterbury, VT 05671-0511 [fax] 802-244-4516

MEMORANDUM

TO: For the Record

FROM: Stephen Bushman, P.E., Assistant Dam Safety Engineer

DATE: July 17, 2006

SUBJECT: Inspection of Silver Lake Dam, Barnard

On July 6, 2006 Stephen Bushman, P.E. and Jesse Dunham-Friel made a routine periodic inspection of the Silver Lake Dam located in Barnard, Vermont, State Identification Number 11.01. The dam is owned by the Vermont Department of Environmental Conservation. Several photographs and field notes were taken during the inspection. The last inspection of the dam was on June 2, 2005. This report updates previous observations and records additional information.

OVERALL CONDITION

The overall condition of the dam is fair.

RECOMMENDATIONS FOR OWNER

1. The woody vegetation should be removed from the downstream slope and from the contact areas.

2. The woody debris at the emergency spillway outlet and the wood chips on the right contact area should be removed.

3. A plan should be developed to repair the concrete in the emergency spillway stop log bays and on the upstream headwall.

4. Monitor the condition of the metal grate on the drop inlet for further corrosion.

5. Place a 2 inch PVC cap over the monitoring well to prevent debris from falling down it.

DAM DESCRIPTION AND HISTORY

The dam consists of a concrete cut-off and facing walls constructed in 1968. These walls are placed against and doweled to existing concrete and masonry walls constructed as early as 1806. The concrete walls are supported by an earthen embankment with a granular filter layer and riprap on the downstream face. This embankment also serves as the foundation for a town highway, the North Road, running along the crest of the dam. The embankment was reconstructed in 1984.

Pipes are grouted into the concrete cutoff wall at the upstream face of the dam. During normal operating conditions, the lake level is controlled by use of stop logs at the inlet structure and flashboards on the emergency spillway. The emergency spillway consists of four 36-inch corrugated galvanized metal pipes that discharge onto the downstream rip rapped face.

The principle spillway outlet consists of one 30-inch diameter cement-lined ductile iron pipe, the upstream end of which is grouted into the wall of a box drop inlet structure that is part of the concrete cutoff wall. The outlet discharges onto the riprap on the downstream face of the dam. Flow into the intake structure is controlled by stop logs and a 24 inch by 36 inch sluice gate.

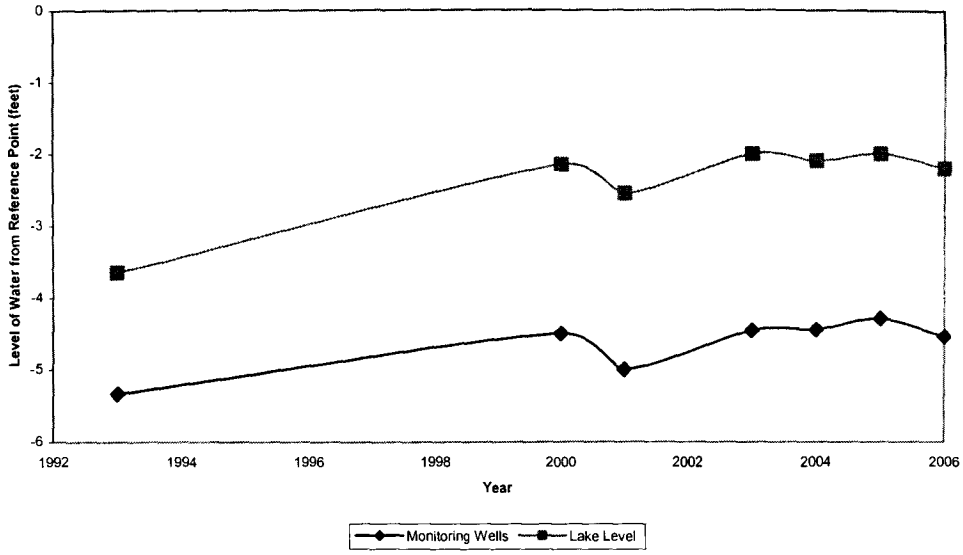
As a safety precaution to assure stability, two observation wells have been installed for the purpose of monitoring water levels in the embankment.

INSPECTION

The inspection of the dam was conducted on July 6, 2006 between 1330 and 1430 hours. The weather was partly cloudy, the temperature was in the 70's and the ground was dry. The water level was noted at 2.2 feet below the right upstream corner of the drop inlet. The water level in the monitoring well was measured and compared to past years. The measurement is taken from the top of the conduit. The following was observed:

Date	Monitoring well level, ft	Lake level, ft	Difference between lake and well level, ft
10/26/1993	-5.34	-3.65	1.69
5/17/2000	-4.50	-2.15	2.35
5/15/2001	-5.00	-2.55	2.45
6/12/2003	-4.46	-2.00	2.46
6/9/2004	-4.45	-2.10	2.35
6/2/2005	-4.29	-2.00	2.29
7/6/2006	-4.54	-2.20	2.34

Lake and Monitoring Well Levels for Silver Lake Dam Barnard, Vermont



1. Embankment Section

a) Upstream Face: The upstream concrete face is generally in fair condition. There was minor cracking at the construction joints. There was minor erosion noted at the left end of the concrete wall that has been improved since the last inspection.

b) Downstream Slope: The downstream slope was covered with moderate brush and woody debris, especially around the emergency spillway outlet pipes. The rock armor appeared to be sound but was very irregular and appears to have moved downhill. There was a pile of woodchips on the right contact area. The seepage that was previously noted is from a 4 inch cast iron drain pipe on the right side of the slope. Flow was clear at about 1 GPM and the source was unknown.

c) Crest: The crest is a town road that is in fair condition. There are minor cracks in the asphalt, but there is no indication of the dam settling. The monitoring well is in the middle of the road. A 2 inch PVC cap is needed for the pipe to prevent debris from falling down in it.

d) Toe: The toe area was well protected with large rip rap. There was moderate woody vegetation growing on it.

e) Abutments: The left contact area had some erosion due to roadside runoff. The other abutment areas appeared to be sound.

2. Principal Spillway

a) Approach Channel: The approach channel was clear of debris.

b) Control Section: The control section was clear of debris. The drop inlet appeared in fair condition. There was minor cracking and efflorescence noted on the concrete.

c) Conduit: The conduit was not inspected. The outlet end of the conduit was in good condition.

d) Discharge Channel: The discharge channel was well armored with rocks and had minor woody vegetation growing along the sides.

e) Trash Rack: The trash rack was in fair condition; the downstream grate cover was corroding.

f) Stop Logs: The stop logs were set 2.5 feet below the upstream right corner. Water was flowing over the stop logs at a depth of 0.3 feet. They appeared to be in generally good condition.

3. Emergency Spillway

a) Approach Channel: The approach channel was clear of debris.

b) Control Section: The concrete in the stop log bays was worn, there were voids in the concrete in several locations. There were numerous cracks in the concrete and concrete loss where the conduits contacted the headwall. The far left conduit had voids in the surrounding concrete about 0.7 feet deep. The middle left conduit had voids in the concrete on the left about 0.8 feet deep and on the right about 0.9 feet deep. The middle right conduit had voids in the concrete on the left about 1.0 foot deep and on the right about 0.7 feet deep. The far right conduit had cracking above the pipe and minor concrete loss around the edges.

c) Discharge Channel: The discharge had woody debris in it. The rock armor appeared to have migrated downhill.

d) Conduit: The conduit was rusted at the flow line, the asphalt coating was gone and there was some undercutting at the outlets. No piping was visible.

4. Drawdown Facility:

The sluice gate was not operated during the inspection. The pedestal was rusted.

HYDROLOGY AND HYDRAULICS

Silver Lake has a 1.7 square mile drainage area with a surface area of 84 acres. At normal lake levels the storage area is 1410 acre-feet, at maximum water levels the storage is 1710 acre-feet.

DOWNSTREAM HAZARD CLASSIFICATION

The dam is a Class 1, "high hazard" dam.

JURISDICTION

Since the dam impounds more than 500,000 cubic feet, any alteration, reconstruction or breaching would require prior approval from the Department under provisions of 10 VSA Chapter 43.

State of Vermont
Department of Environmental Conservation
Dam Safety Section
103 South Main Street
Waterbury, VT 05671-0407

DAM INSPECTION CHECK LIST

Dam Silver Lake — DEC ID. No. _____

Town Bristol — NatDam ID No. VT000 _____

Owner DEC — Inspection Date 6/08/06

Address _____ — Time _____

_____ — Last Inspected/by _____

Telephone _____ — Last D/S Haz Class _____

Right of Entry _____

PERSONS PRESENT AT TIME OF INSPECTION (Name and Organization)

Inspection Party SPB, JDC

_____

Others _____

I. Conditions at Time of Inspection

Weather: Today PT Cloudy, 70s Previous Clear, 70s

Ground Conditions Dry Other _____

Water Level -2.2 w/r/t ⅝ RT Column of Dr

Accessibility _____

Reservoir Area _____

Remarks _____

II. Condition of Main Structure

Type of Construction _____

A. Upstream Face or Slope

1. Vegetative Cover NONE - CONCRETE CUT OFF

2. Erosion NONE (MINOR AT END (LESS THAN 1 sq. ft.))

3. Slumps, Slides, Cracks _____

4. Animal Burrows _____

5. Slope Protection _____

6. Debris _____

7. Structural CRACKS @ CONSTRUCTION JOINTS

8. Abutments _____

9. Alignment _____

10. Movement _____

11. Remarks _____

B. Downstream Face or Slope and Toe

1. Vegetative Cover Weeds, brush some 1-2" woody

2. Erosion NV, large rip rap

3. Slumps, Slides, Cracks NV

4. Animal Burrows

5. Slope Protection Large rip rap some [illegible] needed [illegible]

6. Debris Pile of chips dumped on D/S at Control

7. Seepage From drain pipe (4" CI) on right side of dam, clear, some unknown, probably off dam

8. Piping

9. Boils

10. Toe Drains

11. Scour

12. Structural

13. Abutments CI Control some erosion from [illegible] runoff

14. Alignment _____

15. Movement _____

16. Remarks _____

C. Top of Dam

1. Vegetative Cover Town Road

2. Erosion NO

3. Evidence of Overtopping NO

4. Settlement, Cracks Minor cracks in asphalt
No evidence of major settlement

5. Animal Burrows _____

6. Debris _____

7. Use of crest (road, trail, etc.) Road

8. Structural _____

9. Abutments Good

10. Alignment _____

11. Remarks 4.5Y WRT Road Surface, 4.4 WRT to TOC
2" PVC Cap Needed for Pipe

III. Condition of Outlet Works

A. Principal Spillway

Type Concrete DT

Controlled or Uncontrolled C.C.N

1. Approach Channel Clean

2. Transition _____

3. Control Section _____

4. Discharge Channel _____

5. Intake Structure Concrete Good

6. Conduit 32" DT Concrete Coated Good Cond

7. Outlet Structure ~~Concrete Good~~

8. Trash Racks FAIR D/S Grate Covering Corroded

9. Anti-vortex Devices _____

10. Stop Logs, Flash Boards Set 2's Below U/S RT Corner
From 0.3' Each Stop Logs

11. Remarks

B. Emergency Spillway

Type 4: 3' CMP W/ Stop Log Brs

Controlled or Uncontrolled Cont: Stop Logs -2.1 Below LT D/S Corner of D.

1. Approach Channel Clear

2. Transition

3. Control Section

4. Discharge Channel Progressive numerous Cracks, D/S Rock, some movement Down Pipe

5. Remarks #4 Crack Above Pipe, Concrete Loss At Invert #3 Crack Above Pipe, 1.5' of Concrete Loss Left Side, 2 RT #2 .8 Left Side, 9 RT Side #1 .7 LT Side,

Conduits Rusted At Flow Line, Asphalt Gone, Some Undercutting At Outlets, No Piping Visible

(1) (2) (3) (4) U/S

C. Drawdown Facilities, Gates, Drains, Appurtenances, Etc.

1. Drawdown Facility Riser Conc

Condition Not Operated, Pipe(s) Rusted

2. Other Gates, Drains, Appurtenances _____

_____

Condition _____

_____

3. Remarks _____

_____

_____

_____

IV. Operation and Maintenance

_____

_____

_____

_____

V. Inspection Summary

A. Information Obtained

1. Photographs _____

2. Dimensions _____

3. Other _____

B. Additional Information Needed

_____

_____

_____

C. Overall Condition of Dam

_____

_____

_____

_____

VI Owner Interview Yes No When/where _____

(A) Plans, inspection reports, photos, other records? _____

_____

(B) History of dam _____

_____

(C) Performance, floods, operation, etc. _____

_____

(D) Property lines, access, water rights, etc. _____

_____

(E) Other Information _____

_____

VII. General Comments

_____

_____

_____

_____

Check List completed by Name _____

Title _____

Date _____

Attachments: _____

_____

_____

State of Vermont

AGENCY OF ENVIRONMENTAL CONSERVATION

Department of Fish and Game
Department of Forests, Parks, and Recreation
Department of Water Resources & Environmental Engineering
Natural Resources Conservation Council

Montpelier, Vermont 05602
Department of Water Resources
and
Environmental Engineering

January 27, 1983

Steven Wood, Executive Director
Southern Windsor County
Regional Planning &
Development Commission
Community Center
Room 18
Springfield, VT 05156

Dear Mr. Wood:

The Department of Water Resources is seeking LWCF funds for the reconstruction of the Silver Lake Dam in Barnard. Pursuant to (2) of the attached memorandum, we need the approval of the Regional Planning Agency.

The Corps of Engineers judged Silver Lake Dam to be "unsafe-non-emergency," and recommended that certain additional studies be performed. We've done the studies and now recommend that the dam be partially reconstructed at an estimated cost of $160,000. The work proposed is to excavate the earthen portion of the dam and replace it with a controlled, compacted embankment with a rip-rap downstream face.

Please let me know if there is any additional information required to get a letter of approval.

My telephone number is 828-3361. Thank you.

Sincerely,

Robert B. Finucane, P.E.
Facilities Engineer

RBF:arm
CC: Reginald A. LaRosa, P.E., Director

State of Vermont

AGENCY OF ENVIRONMENTAL CONSERVATION

Montpelier, Vermont 05602

Department of Fish and Game
Department of Forests, Parks, and Recreation
Department of Water Resources & Environmental Engineering
Natural Resources Conservation Council

DEPARTMENT OF FORESTS, PARKS AND RECREATION

MEMORANDUM

TO:

RE: Information for Potential FY 84 Projects

FROM: Shirley Aldrich, LWCF Administrative Assistant

Enclosed is a copy of the Municipal Land and Water Conservation Fund Grant Manual for your use in preparing projects for submission.

The deadline for submitting the preliminary information to begin the application process is December 31, 1982 for FY 84 funding. A list containing most of the documentation required is on Page 4 of the Manual. However, since the time the Manual was printed, there have been some changes in the application process which call for the following additional information to be received as well. 1) A Municipal Recreation Plan must be prepared which addresses the points in the enclosed outline. This is a very important document in terms of justifying your project and identifying the need. It doesn't need to be too elaborate but it must address all the points. 2) All preliminary proposals are to be accompanied by a letter from the appropriate Regional Planning Agency indicating that the project is in accord with the regional development plan. 3) For development projects, the applicant must also submit proof of ownership or control of the property to be developed such as a copy of a deed or lease. If the applicant does not have legal control of the land to be developed, indicate this and describe to us how you intend to obtain control.

The State Board of Forests, Parks and Recreation will be meeting soon after December 31 and will establish statewide priorities based on the information provided in the preliminary application. They will be using the enclosed Project Selection Guidelines to evaluate the proposals.

The Grants Manual and its companion document, the Resource Supplement, should be kept together in a 3-ring binder for easy reference. Referred to as "RS" in the text, the Supplemental Resource information provides a more detailed description of the regulations and is intended to be more useful to communities when refining their proposal later on in the application process. We will send the "RS" packet containing the remaining items listed on Page 53 to you at that time unless you feel you need any or all of the information sooner.

Please keep in mind that we are always available to provide whatever help we can throughout the application process. If at anytime you have questions or need assistance, just give us a call.

Enclosures: Resource Supplements 4, 5, 7, 11, 14
Grants Manual

TWO RIVERS - OTTAUQUECHEE *REGIONAL COMMISSION*

39 CENTRAL STREET, WOODSTOCK, VERMONT 05091 TEL: (802) 457-3188

March 16, 1983

Mr. Robert Finucane, P.E.
Dept. of Water Resources &
Environmental Engineering
Heritage Building
Montpelier, VT 05602

RE: Reconstruction of Silver Lake Dam in Barnard
FY 84 LWCF Application - $160,000

Dear Mr. Finucane:

This letter is in response to your request of January 27, 1983 that the Regional Commission evaluate the above-referenced project in relation to the Regional Development Plan.

Upon close examination of our regional plan, I was unable to find any recommendations or statements of policy regarding reconstruction of an earthen dam. As is the case with most regional plans, the scope of the Two Rivers-Ottauquechee Plan is somewhat limited with the primary emphasis being given to land use and development matters. Regional capital improvement needs of both state and municipal government are unfortunately not addressed.

To assure that the project has strong local support, I contacted the Barnard Board of Selectmen by letter on February 24, 1983. Their reply indicated they had met with you on several occasions and that they felt the project to be a worthwhile undertaking. In light of the town's position, the Regional Commission would like to go on record as also being in support of having this work accomplished with funding made available through the Land & Water Conservation Fund Program.

I hope all goes well with your pursuit for federal assistance.

Sincerely,

Kent D. Stevenson
Senior Planner

CC: Barnard Selectmen
KDS/sl

• FAIRLEE • CORINTH • CHELSEA • BROOKFIELD • BRIDGEWATER • BRAINTREE • BRADFORD • BETHEL • BARNARD

• SHARON • STOCKBRIDGE • STRAFFORD • TOPSHAM • TUNBRIDGE • VERSHIRE • WEST FAIRLEE • WOODSTOCK

• GRANVILLE • HANCOCK • HARTLAND • NEWBURY • PITTSFIELD • PLYMOUTH • POMFRET • RANDOLPH • ROCHESTER • ROYALTON

State of V[illegible]ont

AGENCY OF ENVIRONMENTAL CONSERVATION

Department of Fish and Game
Department of Forests, Parks, and Recreation
Department of Water Resources & Environmental Engineering
Natural Resources Conservation Council

Montpelier, Vermont 05602
Department of Water Resources
and
Environmental Engineering

M E M O R A N D U M

TO: Peter Strobridge, Grants Administrator

FROM: Robert B. Finucane, P.E., Facilities Engineer

SUBJECT: LWCF Grant Application, Silver Lake Dam Reconstruction, Barnard, Vermont

DATE: February 3, 1983

As we discussed, this memorandum is an application for LWCF funds to reconstruct the Silver Lake Dam in Barnard, Vermont.

1. The dam has been found to be "unsafe, non-emergency" by the Corps of Engineers and could be destroyed in a flood. The impoundment is a major recreation resource providing water access for many private camps as well as Silver Lake State Park. The project is to excavate the existing earthen embankment, replace the existing water conduits and replace the embankment with a controlled, compacted earthen structure meeting modern dam design standards.

2. Location maps are attached with a copy of the proposed project plans.

3. A site plan is part of the project plans. The boundary map is attached.

4. A cost estimate is attached.

5. State 50% matching funds will be from operating funds, appropriated dam maintenance funds and expected bond funds reallocated from other completed projects.

6. A letter of intent is attached.

7. The contact person is:

Robert B. Finucane, P.E., Facilities Eng.
Department of Water Resources and
Environmental Engineering
State Office Building
Montpelier, Vermont 05602
828-3361

8. The deed to the lands shown in 3 (above) is attached.

If you have any questions, please call me.

RBF:arm
Enc: as noted above

July 14, 1983

Mr. Kent Stevenson
Two Rivers-Ottauquechee
Regional Commission
39 Central Street
Woodstock, Vermont 05091

Dear Mr. Stevenson:

We hope to reconstruct Silver Lake Dam this Fall. There are a number of sources of uncertainty which might push construction over to Fall 1984 or even later.

Specifically, we need to get a Water Resources Board Permit and a local zoning permit in a timely fashion. We need to get legislative approval for the State share of funding for the project and Federal approval for the matching funds. The funding question has to be settled in time to advertise for bids and hire a contractor early enough that the tight construction schedule can be met.

A final decision on construction this year could be made as late as the last week in August. I wish I had more definite information for you.

If you have any questions please call me at 828-3361.

Thank you.

Sincerely,

Robert B., Finucane, P.E.
Facilities Engineer

RBF:arm

State of Vermont

AGENCY OF ENVIRONMENTAL CONSERVATION

Montpelier, Vermont 05602

Department of Fish and Game
Department of Forests, Parks, and Recreation
Department of Water Resources & Environmental Engineering
Natural Resources Conservation Council

DEPARTMENT OF FORESTS, PARKS AND RECREATION

September 1, 1983

MEMO TO: Bob Finucane, Facilities Engineering

FROM: Shirley Aldrich, Recreation Division

RE: LWCF Jobs Bill Project #50-00362, Silver Lake Dam Renovation

Enclosed is the NPS approved project documentation for the Silver Lake Dam Renovation, funded federally from the FY '83 LWCF Jobs Bill Supplemental Appropriation.

An administrative surcharge or indirect cost rate has been added to this project and you will need to disregard the funding information as listed on the agreement. Based on the cost estimate submitted, funding allowed for construction and engineering, based on eligible costs, is:

LWCF Reimbursement	$ 90,623.50
State Assistance	90,623.50
Total Costs	$181,247.00

Special Requirements of Jobs Bill funded projects:

The expiration date of this project is August 31, 1984.

Actual construction ("ground breaking - on-site") work must be underway by January 1, 1984.

Billings must be reviewed and cleared by NPS Regional Office and Letters of Credit submitted to Treasury on or before September 15, 1984.

cc: Helen Weed
John Ponsetto

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Land and Water Conservation Fund Project Agreement

State Vermont	Project Number 50-00362
Project Title	Silver Lake Dam Renovation
Project Period Date of Approval - August 31, 1984	Project Stage Complete Covered by this Agreement

Project Scope (Description of Project)

The Vermont Agency of Environmental Conservation will reconstruct an earthfill dam and outlet works at Silver Lake, Town of Barnard, Windsor County, Vermont. This dam had previous reconstruction work done under Project 50-00044.

Project Cost		The following are hereby incorporated into this agreement:
Total Cost	$ 208,434.04	
Fund Support not to exceed 50%		1. General Provisions (LWCF Manual)
Fund Amount	$ 104,217.02	2. Project Application and Attachments.
Cost of this Stage	$ 208,434.04	3.
Assistance this Stage	$ 104,217.02	4.

NPS 10-902

The United States of America, represented by the Director, National Park Service, United States Department of the Interior, and the State named above (herinafter referred to as the State), mutually agree to perform this agreement in accordance with the Land and Water Conservation Fund Act of 1965, 78 Stat. 897 (1964), the provisions and conditions of the Land and Water Conservation Fund Grants Manual, and with the terms, promises, conditions, plans, specifications, estimates, procedures, project proposals, maps, and assurances attached hereto or retained by the State and hereby made a part hereof.

The United States hereby promises, in consideration of the promises made by the State herein, to obligate to the State the amount of money referred to above, and to tender to the State that portion of the obligation which is required to pay the United States' share of the costs of the above project stage, based upon the above percentage of assistance. The State hereby promises, in consideration of the promises made by the United States herein, to execute the project described above in accordance with the terms of this agreement.

The following special project terms and conditions were added to this agreement before it was signed by the parties hereto:

Any reference to the Heritage Conservation and Recreation Service (HCRS) or the Bureau of Outdoor Recreation (BOR) contained in this project agreement, or in any attachments incorporated thereto, shall hereinafter be considered a reference to the National Park Service (NPS).

Federal assistance made available under this agreement is subject to the special provisions contained in Public Law 98-8, as stated on the attached:

Contractors should contact the Vermont Jobs Service for any additional employees required to complete this project.

In witness whereof, the parties hereto have executed this agreement as of the date entered below.

THE UNITED STATES OF AMERICA

By _____

(Signature)

National Park Service
United States Department
of the Interior

Date 19 AUG 1983

STATE

Vermont

By _____

(Signature)

Stephen B. Sease
(Name)

Alternate State Liaison Officer
(Title)

NPS 10-902
(7-81)

In accordance with Public Law 98-8, federal assistance made available under this agreement must be obligated by October 1, 1983, work commenced by January 1, 1984, and funds expended by October 1, 1984.

Section 101(c) of Public Law 98-8 provides that:

". . . states or political subdivisions of states, which receive allotment of funds under this title shall to the extend practicable utilize such funds in a manner which maximizes immediate creation of new employment opportunities to individuals who were unemployed at least 15 of the 26 weeks immediately preceding the date of enactment of the Act."

[redacted] Furucare
Facilities Engineering

SILVER LAKE DAM RENOVATION

List of Enclosures for Application

Project Agreement (3)
SF 424
Description and Notification Form
RO 184 and Narrative
SCORP Reference
Cost Estimate
Environmental Certification
Pre-Award Inspection Report dated 6/24/83
*Handicapped Provisions Statement - Not Applicable
Historical/Archeological Statement
A-95 Documentation and Approval
Location Map; Determination of Flood Hazard Area
Proof of Ownership - Deed:
H. W. and N. A. Hull, and R. L. and J. A. Lessard to State of Vermont dated 7/19/68
Assurance of Compliance
General Provisions (on file)
6(f)(3) Boundary Map
Site Plan

OMB Approval No. 29-R0218

FEDERAL ASSISTANCE

2. APPLICANT'S APPLICATION	a. NUMBER	3. STATE APPLICATION IDENTIFIER	a. NUMBER VT83-49
	b. DATE Year month day 1983 8 9		b. DATE ASSIGNED Year month day 1983 23 3

1. TYPE OF ACTION (Mark appropriate box)
- ☐ PREAPPLICATION
- ☒ APPLICATION
- ☐ NOTIFICATION OF INTENT (Opt.)
- ☐ REPORT OF FEDERAL ACTION

Leave Blank

SECTION I—APPLICANT/RECIPIENT DATA

4. LEGAL APPLICANT/RECIPIENT

a. Applicant Name : VT Agency of Environmental Conservation
b. Organization Unit : Dept. of Forests, Parks & Recreation
c. Street/P.O. Box : 79 River Street
d. City : Montpelier
e. County : Washington
f. State : Vermont
g. ZIP Code: 05602
h. Contact Person (Name & telephone No.) : Peter Strobridge, LWCF Grants Admin. 802-828-3375

5. FEDERAL EMPLOYER IDENTIFICATION NO.

6. PROGRAM (From Federal Catalog)
a. NUMBER 15.916
b. TITLE Outdoor Recreation - Acquisition, Development and Recreation

7. TITLE AND DESCRIPTION OF APPLICANT'S PROJECT

Silver Lake Dam Renovation

The Vermont Agency of Environmental Conservation will reconstruct an earthfill dam and outlet works at Silver Lake, Town of Barnard, Windsor County, Vermont.

8. TYPE OF APPLICANT/RECIPIENT
A-State; B-Interstate; C-Substate District; D-County; E-City; F-School District; G-Special Purpose District; H-Community Action Agency; I-Higher Educational Institution; J-Indian Tribe; K-Other (Specify): ____
Enter appropriate letter: A

9. TYPE OF ASSISTANCE
A-Basic Grant; B-Supplemental Grant; C-Loan; D-Insurance; E-Other
Enter appropriate letter(s): A

10. AREA OF PROJECT IMPACT (Names of cities, counties, States, etc.)
County of Windsor

11. ESTIMATED NUMBER OF PERSONS BENEFITING
NA

12. TYPE OF APPLICATION
A-New; B-Renewal; C-Revision; D-Continuation; E-Augmentation
Enter appropriate letter: A

13. PROPOSED FUNDING

a. FEDERAL	$ 104,217 .00
b. APPLICANT	104,217 .00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ 208,434 .00

14. CONGRESSIONAL DISTRICTS OF:
a. APPLICANT 01
b. PROJECT 01

16. PROJECT START DATE Year month day 19
17. PROJECT DURATION 12 Months
18. ESTIMATED DATE TO BE SUBMITTED TO FEDERAL AGENCY ▶ Year month day 1983 8 9

15. TYPE OF CHANGE (For 11c or 11e)
A-Increase Dollars; B-Decrease Dollars; C-Increase Duration; D-Decrease Duration; E-Cancellation; F-Other (Specify): ____
Enter appropriate letter(s):

19. EXISTING FEDERAL IDENTIFICATION NUMBER

20. FEDERAL AGENCY TO RECEIVE REQUEST (Name, City, State, ZIP code)
Mid-Atlantic Region, National Park Service, Phila., PA 19106

21. REMARKS ADDED ☐ Yes ☒ No

SECTION II—CERTIFICATION

22. THE APPLICANT CERTIFIES THAT ▶
a. To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

b. If required by OMB Circular A-95 this application was submitted, pursuant to instructions therein, to appropriate clearinghouses and all responses are attached:

	No response	Response attached
(1) VT State Clearinghouse	☒	☐
(2)	☐	☐
(3)	☐	☐

23. CERTIFYING REPRESENTATIVE
a. TYPED NAME AND TITLE: Stephen B. Sease, Alternate State Liaison Officer
b. SIGNATURE: Stephen B. Sease
c. DATE SIGNED Year month day 1983 8 8

SECTION III—FEDERAL AGENCY ACTION

24. AGENCY NAME

25. APPLICATION RECEIVED Year month day 19

26. ORGANIZATIONAL UNIT

27. ADMINISTRATIVE OFFICE

28. FEDERAL APPLICATION IDENTIFICATION

29. ADDRESS

30. FEDERAL GRANT IDENTIFICATION

31. ACTION TAKEN
- ☐ a. AWARDED
- ☐ b. REJECTED
- ☐ c. RETURNED FOR AMENDMENT
- ☐ d. DEFERRED
- ☐ e. WITHDRAWN

32. FUNDING

a. FEDERAL	$ .00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ .00

33. ACTION DATE ▶ Year month day 19

34. STARTING DATE Year month day 19

35. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)

36. ENDING DATE Year month day 19

37. REMARKS ADDED ☐ Yes ☐ No

38. FEDERAL AGENCY A-95 ACTION
a. In taking above action, any comments received from clearinghouses were considered. If agency response is due under provisions of Part 1, OMB Circular A-95, it has been or is being made.

b. FEDERAL AGENCY A-95 OFFICIAL (Name and telephone no.)

NPS 8-222
March 1978

LAND AND WATER CONSERVATION FUND
DESCRIPTION AND NOTIFICATION FORM

NEW AMEND COR

STATE	PROJ	ELEM
50		XXX

1

PROJECT NAME: Silver Lake Dam Renovation

RECEIVED			3
MO	DAY	YR	

APPROVED			4
MO	DAY	YR	

EXPIRATION			5
MO	DAY	YR	
8	31	84	

TARGETS			
MO	YR	MO	YR
9	83	8	84
START		STOP	

TYPE 7
A = acquisition
D = new development
(R) = renovation development
C = combination
P = planning

ELEMENT NAME:

SPONSOR 9
L = local
(S) = state
C = county

SPONSOR NAME: Vermont Agency of Environmental Conservation

ADDRESS: _____

SCOPE NARRATIVE:

FINANCIAL DATA ESTIMATES:

TOTAL COST	FUND AMOUNT	SOURCE OF OTHER		
		STATE (11)	LOCAL (12)	FED (13)
		X		

CLEARINGHOUSE DATA:

NAME	RESP
1. STATE #	
2. LOCAL	
3.	

CNTY	CITY	14
027		

CENSUS TRACT 15 .

CONGRESS DISTRICT 16: 83

ACREAGE ACQUIRED 17 .

DONATED ACRES 18 .

ACQUIS. ASSISTANCE .

SPECIAL INDICES 20

A = leased land—private	I = indian sponsored	S = school park
B = leased land—federal	L = less than fee acquisition	T = national trail
C = coastal project	M = mined land	U = utility—R-O-W
E = surplus property	P = natural heritage preservation	W = wetlands
F = flood plain	Q = railroad—R-O-W	X = project involved conversion
H = handicapped emphasis	R = national river	Z = contingency reserve

FACILITY

A. 00. CAMPGROUNDS
01. tent sites
02. trail or/camper sites
03. group campground
04. day camp

B. 00. PICNIC AREAS
01. family site
02. group shelter

C. 00. SPORTS & PLAYFIELDS
01. general purpose playfields
02. baseball/softball
03. football/soccer
04. tot lot
05. tennis courts
06. other courts
07. rifle/pistol range
08. trap/skeet field
09. archery range
10. rodeo area
11. track facility

D. 00. GOLF COURSE
01. regular
02. par 3
03. driving range

E. 00. SWIMMING FACILITIES
01. pool
02. wading pool
03. spray pool
04. swimming beach
05. bathhouse

F. 00. BOATING FACILITIES
01. launch ramp
02. berths
03. boat lift

G. 00. FISHING FACILITIES
01. pier
02. stream improvement
03. fishing access

H. 00. TRAILS
01. hiking
02. horse
03. bicycle
04. motorized
05. nature
06. exercise

J. 00. WINTER SPORTS FACILITIES
01. ski lift
02. ski slope
03. ski jump
04. sled/toboggan run
05. skating rink
06. ski trails
07. snowmobile trails
08. warming huts

K. 00. SHELTERED POOL

L. 00. SHELTERED ICE RINK

M. 00. HUNTING

N. 00. NATURAL AREA

P. 00. PASSIVE PARKS

Q. 00. SUPPORT FACILITY
01. walkways
02. site improvement/landscaping
03. utilities
04. equipment
05. roads
06. parking
07. lighting
08. signs
09. comfort station
10. concession bldg.
11. maintenance bldg.

R. 00. AMPHITHEATER/BAND SHELL

S. 00. LAKE IMPOUNDMENTS

T. 00. VISITOR INFORMATION CENTER

U. 00. INTERPRETIVE CENTER

V. 00. OTHER

U.S. GOVERNMENT PRINTING OFFICE

ATTACHMENT A

PART II

PROJECT APPROVAL INFORMATION
SECTION A

OMB Approval No. 80-R0184

Item 1.
Does this assistance request require State, local, regional, or other priority rating?
_____Yes _____No
Name of Governing Body _____
Priority Rating _____

Item 2.
Does this assistance request require State, or local advisory, educational or health clearances?
_____Yes _____No
Name of Agency or Board _____
(Attach Documentation)

Item 3.
Does this assistance request require clearinghouse review in accordance with OMB Circular A-95?
X Yes _____No
(Attach Comments) A-95 Signoff Enclosed.

Item 4.
Does this assistance request require State, local, regional or other planning approval?
_____Yes _____No
Name of Approving Agency _____
Date _____

Item 5.
Is the proposed project covered by an approved comprehensive plan?
X Yes _____No
Check one: State ☒ VT SCORP
Local ☐
Regional ☐
Location of plan _____

Item 6.
Will the assistance requested serve a Federal installation?
_____Yes _____No
Name of Federal Installation _____
Federal Population benefiting from Project _____

Item 7.
Will the assistance requested be on Federal land or installation?
_____Yes X No
Name of Federal Installation _____
Location of Federal Land _____
Percent of Project _____

Item 8.
Will the assistance requested have an impact or effect on the environment?
X Yes _____No
See instruction for additional information to be provided. Environmental Certification Enclosed.

Item 9.
Will the assistance requested cause the displacement of individuals families, businesses, or farms?
_____Yes X No
Number of:
Individuals _____
Families _____
Businesses _____
Farms _____

Item 10.
Is there other related Federal assistance on this project previous, pending, or anticipated?
X Yes _____No
See instructions for additional information to be provided. LWCF Project #50-00044.

Item 11.
Is the project in a designated flood hazard area?
X Yes _____No
See Manual Parts 640.5 and 660.4.

OMB NO 80-R0184

INSTRUCTION

PART II – SECTION B

11. SITES AND IMPROVEMENTS: _____ Not required, __X__ Attached as exhibits
Applicant intends to acquire the site through:
_____ Eminent domain, __X__ Negotiated purchase, _____ Other means (specify)

12. TITLE OR OTHER INTEREST IN THE SITE IS OR WILL BE VESTED IN:
__X__ Applicant, _____ Agency or institution operating the facility, _____ Other (specify)

13. INDICATE WHETHER APPLICANT/OPERATOR HAS:
__X__ Fee simple title, _____ Leasehold interest, _____ Other (specify)

14. IF APPLICANT/OPERATOR HAS LEASEHOLD INTEREST, GIVE THE FOLLOWING INFORMATION:
a. Length of lease or other estate interest _____, and number of years to run _____
b. Is lease renewable? _____ Yes _____ No
c. Current appraised value of land $ _____
d. Annual rental rate $ _____

15. ATTACH AN OPINION FROM ACCEPTABLE TITLE COUNSEL DESCRIBING THE INTEREST APPLICANT/OPERATOR HAS IN THE SITE AND CERTIFYING THAT THE ESTATE OR INTEREST IS LEGAL AND VALID.

16. WHERE APPLICABLE, ATTACH SITE SURVEY, SOIL INVESTIGATION REPORTS AND COPIES OF LAND APPRAISALS.

17. WHERE APPLICABLE, ATTACH CERTIFICATION FROM ARCHITECT ON THE FEASIBILITY OF IMPROVING EXISTING SITE TOPOGRAPHY.

18. ATTACH PLOT PLAN.

19. CONSTRUCTION SCHEDULE ESTIMATES: _____ Not required, _____ Being prepared, _____ Attached as exhibits
Percentage of completion of drawings and specifications at application date:
Schematics _____ % Preliminary _____ % Final _____ %

20. TARGET DATES FOR:
Bid Advertisement _____ Contract Award _____
Construction Completion _____ Occupancy _____

21. DESCRIPTION OF FACILITY: _____ Not required __X__ Attached as exhibits
Drawings – Attach any drawings which will assist in describing the project.
Specifications – Attach copies of completed outline specifications.
(If drawings and specifications have not been fully completed, please attach copies or working drawings that have been completed.)

NOTE: ITEMS ON THIS SHEET ARE SELF-EXPLANATORY; THEREFORE, NO INSTRUCTIONS ARE PROVIDED.

ATTACHMENT A

OMB NO. 80-R0184

PART III – BUDGET INFORMATION – CONSTRUCTION

SECTION A – GENERAL

1. Federal Domestic Assistance Catalog No. 15.916

2. Functional or Other Breakout .....

SECTION B – CALCULATION OF FEDERAL GRANT

Cost Classification	Use only for revisions		Total Amount Required
	Latest Approved Amount	Adjustment + or (-)	
1. Administration expense	$	$	$ 27,187.04
2. Preliminary expense			
3. Land, structures, right-of-way			
4. Architectural engineering basic fees			30,000.00
5. Other architectural engineering fees			
6. Project inspection fees			
7. Land development			
8. Relocation Expenses			
9. Relocation payments to Individuals and Businesses			
10. Demolition and removal			
11. Construction and project improvement			151,247.00
12. Equipment			
13. Miscellaneous			
14. Total (Lines 1 through 13)			208,434.04
15. Estimated Income (if applicable)			
16. Net Project Amount (Line 14 minus 15)			208,434.04
17. Less: Ineligible Exclusions			
18. Add: Contingencies			
19. Total Project Amt. (Excluding Rehabilitation Grants)			208,434.04
20. Federal Share requested of Line 19			104,217.02
21. Add Rehabilitation Grants Requested (100 Percent)			
22. Total Federal grant requested (Lines 20 & 21)			104,217.02
23. Grantee share VT 90,623.50 + 13,593.52			104,217.02
24. Other shares			
25. Total project (Lines 22, 23 & 24)	$	$	$ 208,434.04



O.M.B. NO. 80-R0184

SECTION C – EXCLUSIONS

26 Classification	Ineligible for Participation (1)	Excluded from eContingency Provision (2)
a.	$	$
b.		
c.		
d.		
e.		
f.		
g. Totals	$	$

SECTION D – PROPOSED METHOD OF FINANCING NON-FEDERAL SHARE

27. Grantee Share	$
a. Securities	
b. Mortgages	
c. Appropriations (By Applicant) VT 90,623.50 + 13,593.52	104,217.02
d. Bonds	
e. Tax Levies	
f. Non Cash	
g. Other (Explain)	
h. TOTAL – Grantee share	104,217.02
28. Other Shares	
a. State	
b. Other	
c. Total Other Shares	
29. TOTAL	$ 104,217.02

SECTION E – REMARKS

PART IV PROGRAM NARRATIVE (Attach – See Instructions)

PART IV

PROGRAM NARRATIVE

Prepare the program narrative statement in accordance with the following instructions for all new grant programs. Requests for supplemental assistance should be responsive to Item 5b only. Requests for continuation or refunding or other changes of an approved project should be responsive to Item 5c only.

1. OBJECTIVES AND NEED FOR THIS ASSISTANCE.

Pinpoint any relevant physical, economic, social, financial, institutional, or other problems requiring a solution. Demonstrate the need for assistance and state the principal and subordinate objectives of the project. Supporting documentation or other testimonies from concerned interests other than the applicant may be used. Any relevant data based on planning studies should be included or footnoted.

2. RESULTS OR BENEFITS EXPECTED.

Identify results and benefits to be derived. For example, include a description of who will occupy the facility and show how the facility will be used. For land acquisition or development projects, explain how the project will benefit the public.

3. APPROACH.

a. Outline a plan of action pertaining to the scope and detail of how the proposed work will be accomplished for each grant program. Cite factors which might accelerate or decelerate the work and your reason for taking this approach as opposed to others. Describe any unusual features of the project such as design or technological innovations, reductions in cost or time, or extraordinary social and community involvements.

b. Provide for each grant program monthly or quarterly quantitative projections of the accomplishments to be achieved, if possible. When accomplishments cannot be quantified, list the activities in chronological order to show the schedule of accomplishments and their target dates.

c. Identify the kinds of data to be collected and maintained, and discuss the criteria to be used to evaluate the results and success of the project. Explain the methodology that will be used to determine if the needs identified and discussed are being met and if the results and benefits identified in Item 2 are being achieved.

d. List each organization, cooperator, consultant, or other key individuals who will work on the project along with a short description of the nature of their effort or contribution.

4. GEOGRAPHIC LOCATION.

Give a precise location of the project and area to be served by the proposed project. Maps or other graphic aids may be attached.

5. IF APPLICABLE, PROVIDE THE FOLLOWING INFORMATION:

a. Describe the relationship between this project and other work planned, anticipated, or underway under the Federal Assistance listed under Part II, Section A, Item 10.

b. Explain the reason for all requests for supplemental assistance and justify the need for additional funding.

c. Discuss accomplishments to date and list in chronological order a schedule of accomplishments, progress or milestones anticipated with the new funding request. If there have been significant changes in the project objectives, location, approach or time delays, explain and justify. For other requests for changes or amendments, explain the reason for the change(s). If the scope or objectives have changed or an extension of time is necessary, explain the circumstances and justify. If the total budget has been exceeded or if individual budget items have changed more than the prescribed limits contained in Attachment K, Office of Management and Budget Circular No. A-102, explain and justify the change and its effect on the project.

PART V

ASSURANCES

The applicant hereby assures and certifies that he will comply with the regulations, policies, guidelines and requirements, including Office of Management and Budget Circulars Nos. A-87, A-95, and A-102, as they relate to the application, acceptance and use of Federal funds for this federally-assisted project. Also, the applicant gives assurance and certifies with respect to the grant that:

1. It possesses legal authority to apply for the grant, and to finance and construct the proposed facilities; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.

2. It will comply with the provisions of: Executive Order 11296, relating to evaluation of flood hazards, and Executive Order 11288, relating to the prevention, control, and abatement of water pollution.

3. It will have sufficient funds available to meet the non-Federal share of the cost for construction projects. Sufficient funds will be available when construction is completed to assure effective operation and maintenance of the facility for the purposes constructed.

4. It will obtain approval by the appropriate Federal agency of the final working drawings and specifications before the project is advertised or placed on the market for bidding; that it will construct the project, or cause it to be constructed, to final completion in accordance with the application and approved plans and specifications; that it will submit to the appropriate Federal agency for prior approval changes that alter the costs of the project, use of space, or functional layout; that it will not enter into a construction contract(s) for the project or undertake other activities until the conditions of the construction grant program have been met.

5. It will provide and maintain competent and adequate architectural engineering supervision and inspection at the construction site to insure that the completed work conforms with the approved plans and specifications; that it will furnish progress reports and such other information as the Federal grantor agency may require.

6. It will operate and maintain the facility in accordance with the minimum standards as may be required or prescribed by the applicable Federal, State and local agencies for the maintenance and operation of such facilities.

7. It will give the grantor agency and the Comptroller General through any authorized representative access to and the right to examine all records, books, papers, or documents related to the grant.

8. It will require the facility to be designed to comply with the "American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped," Number A117.1-1961, as modified (41 CFR 101-17.703). The applicant will be responsible for conducting inspections to insure compliance with these specifications by the contractor

9. It will cause work on the project to be commenced within a reasonable time after receipt of notification from the approving Federal agency that funds have been approved and that the project will be prosecuted to completion with reasonable diligence.

10. It will not dispose of or encumber its title or other interests in the site and facilities during the period of Federal interest or while the Government holds bonds, whichever is the longer.

11. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement. If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits.

12. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.

13. It will comply with the requirements of Title II and Title III of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and federally assisted programs.

14. It will comply with all requirements imposed by the Federal grantor agency concerning special requirements of law, program requirements, and other administrative requirements approved in accordance with Office of Management and Budget Circular No. A-102.

15. It will comply with the provisions of the Hatch Act which limit the political activity of employees.

16. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to hospital and educational institution employees of State and local governments.

SILVER LAKE DAM RENOVATION

Narrative

Silver Lake Dam is owned and operated by the Vermont Department of Water Resources. Silver Lake supports a heavily-used State park, a town beach and numerous private camps. Swimming and boating are summer activities on the lake with fishing being pursued year round.

The dam was last repaired in 1968 under Project 50-00044. The dam is now showing signs of seepage and some of the inner fill is settling.

To accomplish the renovation, the roadway and fill will be removed. The existing concrete cutoff wall on the upstream side will be left in place and a temporary culvert will be used to handle flow during construction. New outlet and emergency spillway pipes will be installed with new inner fill material, new sand and gravel filter and rip-rap. The culverts will have anti-seep collars.

Engineering will be provided by DuBois and King Inc. of Randolph, Vermont, and construction work will go out to bid.

SILVER LAKE DAM RENOVATION

SCORP Reference

VERMONT SCORP '83 - Page 114 - Surface Waters

Twenty-five percent of the comments received at regional meetings indicated the need for swimming, fishing, and boating access.

COST ESTIMATE
SILVER LAKE DAM RECONSTRUCTION
BARNARD, VERMONT

DAM RECONSTRUCTION

Item	Quantity	Units	Per Unit	Total
Lake Lowering	lump sum	1	5,000.00	5,000
Excavation	cubic yd.	5,000	3.50	17,500
Rock Excavation	Cubic yd.	100	5.00	500
Earth Bank	cubic yd.	3,000	2.50	7,500
Select Borrow	cubic yd.	1,000	3.00	3,000
Bank Run Sand-Gravel	cubic yd.	300	8.00	2,400
Crushed Stone	cubic yd.	300	10.00	3,000
Rip-Rap	cubic yd.	1,000	40.00	40,000
Pipe Bed	cubic yd.	700	5.00	3,500
Remove Pipes	lump sum	1	- 0 -	- 0 -
36" CGMP	lin. ft.	228	40.00	9,120
30" PCCP	lin. ft.	89	28.00	2,492
Temp. Road	lump sum	1	15,000.00	15,000
Asphalt Paving	sq. yd.	350	45.00	15,750
Asphalt LT 2" Thick	Sq. yd.	(50)	30.00	1,500
Temporary Paving	Sq. yd.	(350)	15.00	5,250
Guard Rail	lin. ft.	100	12.00	1,200
R & R Guard Rail	lin. ft.	100	13.25	1,325
Concrete Class B	cubic yd.	50	180.00	9,000

Silver Lake Dam Reconstruction

Item	Quantity	Units	Per Unit	Total
Misc. Excavation	cubic yd.	100	4.00	400
Hydrant R & R 50' - 10"	lump sum	1	1,150.00	1,150
Turf Establishment	sq. yd.	800	1.50	1,200
Clean Up	lump sum	1	3,000.00	3,000
Add Sluice Gate	lump sum	1	400.00	400
Add Observation Wells	lump sum	1	560.00	560
Add Temporary Guardrail	lin. ft.	200	7.50	1,500
				151,247
Engineering Design Services				23,000
Engineering Construction Supervision				7,000
TOTAL				181,247

ATTACHMENT A

ENVIRONMENTAL CERTIFICATION

Based upon a review of the application, proposal narrative, and the supporting documentation contained in the application, it has been determined that the proposed action, proposed L&WCF Project **Silver Lake Dam Renovations**, meets the criteria for categorical exclusion under 516 DM 6, Appendix 7, Item **F(3)** *.

Stephen B. Sease

State Liaison Officer's Signature
Stephen B. Sease

August 8, 1983
Date

Alternate State Liaison Officer
Title

I Concur:

Regional Director, Region
National Park Service

Date

* (indicate appropriate categorical exclusion)

Manual Release		140	
Replaces:	PD	36	9/03/80
	PD	24	11/30/77
	MR	125	12/14/73

PRE-AWARD ON-SITE INSPECTION REPORT

State Vermont
Project #
Project Period

Date of Inspection 6/24/83
Project Title Silver Lake Dam Reconstruction
Type: Acq. ____ New Dev. ____ Ren. Dev. X
Combination ____

Inspector Peter Strobridge
Title LWCF Grants Administrator
Agency Environmental Conservation

Accompanied by
Title
Agency

		YES	NO
1.	Is land suitable for intended use? (if NO, explain below).	X	
2.	Are there any reserved rights/restrictions? (if YES, explain below).	X	
3.	Is site located in floodplain/wetland? (if YES, explain below).		X
4.	Is Corps of Engineers or Coast Guard permit necessary? (if YES, explain).		X
5.	Are there any known historic/archeological sites? (if YES, explain).		X
6.	Is site on prime/unique farmland? (if YES, explain below).		X
7.	Are there any endangered species at site? (if YES, explain below).		X
8.	Are there any potential health or safety problems? (if YES, explain).	X	
9.	Is site adjacent to National Wildlife Area, National Fish Hatchery or area under small waterfowl product program? (if YES, explain below).		X
10.	Will project result in displacement of persons, businesses, etc? (if YES, explain below).		X
11.	Are provisions to make facilities accessible to handicapped included? (if NO, explain below).		X
12.	Are there private recreation facilities in vicinity which project may compete with? (if YES, explain below).		X

Narrative addressing: (a) Land Characteristics including adjacent land use, past and present uses of the site, access to the area; (b) Compatability of the site to the proposed use or development; (c) Man-made features which detract from the area; and (d) Reservation of rights, easements, rights-of-way, use restrictions, etc., and their effect on the area.

The project is on the site of an existing dam which creates Silver Lake. There are many private camps on the lake as well as a Vermont State Park with a swimming beach. State Aid Highway #3 passes over the dam. Adjacent land uses are residential and business (in the form of a country store).

There are overhead utility lines crossing the dam, but no recreation facilities are to be constructed under this project.

There are existing rights of way for the road and utility lines, but they have no effect on this project.

Notes to future inspectors:

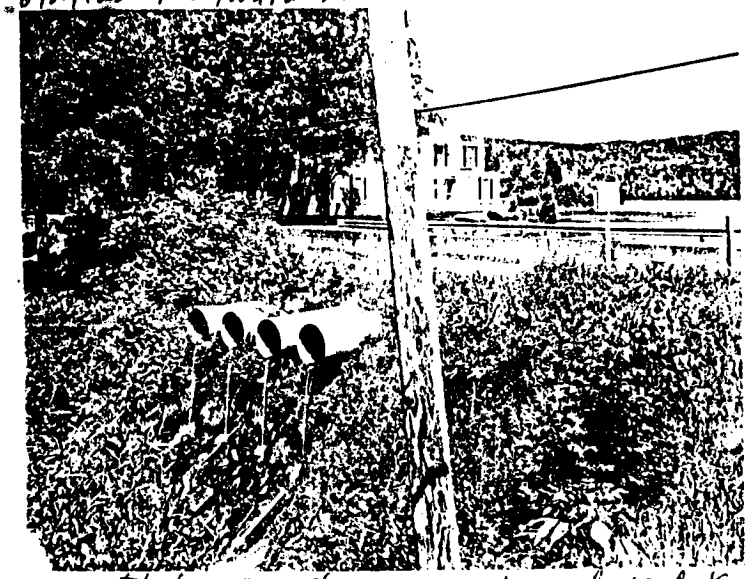
Reviewed by: Signature Stephen B. Farr — Alternate
Title State Liaison Officer

Signature Peter Strobridge — Inspector
Title LWCF Grants Administrator

6/29/83 — Date

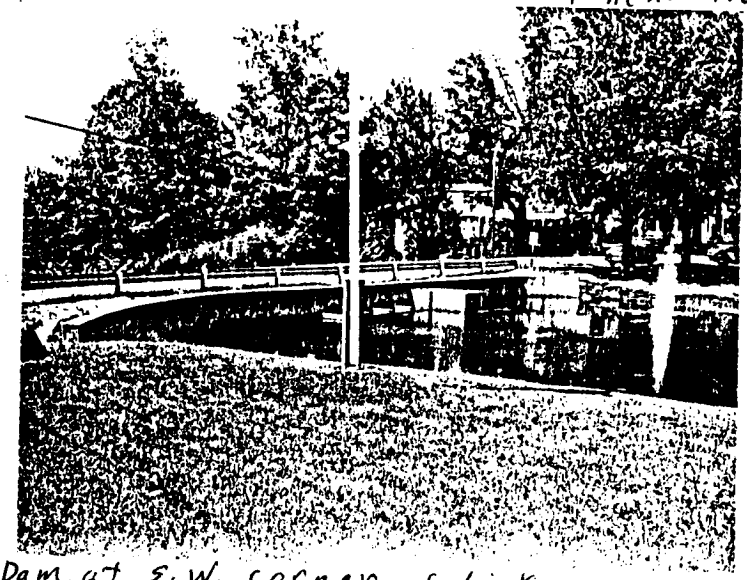
Photographs, with descriptive captions, are included: Yes.

6/24/83 Pre Award Silver Lake Dam Renovation



outlet structure Lake in right background

6/24/83 Pre Award Silver lake Dam Renovation



Dam, at S.W. corner of Lake

JUL 12 1983

STATE OF VERMONT

AGENCY OF DEVELOPMENT AND COMMUNITY AFFAIRS

MONTPELIER, VERMONT 05602

OFFICE OF THE SECRETARY (802) 828-3211

MILTON A. EATON, SECRETARY

DEPARTMENTS OF:
Economic Development 828-3221
Housing & Community Affairs 828-3217

DIVISIONS OF:
Administration 828-3231
Historic Preservation 828-3226
Vermont Travel Division 828-3236
Vermont Life Magazine 828-3241

July 11, 1983

Mr. Peter Strobridge
LWCF Grants Administrator
Department of Forests, Parks
and Recreation
Agency of Environmental Conservation
Montpelier, Vermont 05602

Re: Barnard - Silver Lake Dam Reconstruction

Dear Mr. Strobridge:

Thank you for the opportunity to comment on the above-referenced project.

The Division for Historic Preservation has reviewed this undertaking according to the standards set forth in 36 C.F.R. 800, regulations established by the Advisory Council on Historic Preservation to implement Section 106 of the National Historic Preservation Act.

The project as planned will not affect any properties of historic, architectural or archeological significance which are included in or eligible for inclusion in the National Register of Historic Places.

Sincerely,

DIVISION FOR HISTORIC PRESERVATION

Eric Gilbertson
Director/Deputy State Historic
Preservation Officer

EG/cjd

OFFICE OF THE GOVERNOR

STATE PLANNING OFFICE
AREA CODE 802-828-3326

STATE OF VERMONT
MONTPELIER, VERMONT 05602

MAY 02 1983

MEMORANDUM

TO: A-95 Applicants

FROM: Carol C. Drake, Senior Policy Analyst

DATE: April 27, 1983

SUBJECT: A-95 Signoff List

Review period for the following A-95 projects has been completed. If Federal agencies request A-95 signoffs, this form will serve that purpose.

SAI No.	Applicant	Comments
VT 83-20	Snowfall, Inc.	NONE
VT 83-42	Lincoln Street, Inc.	"
VT 83-43	Bennington Project Ind.	"
VT 83-44	Farm & Wilderness Found.	"
VT 83-45	AEC - Sand Bar Beach	"
VT 83-46	" Stillwater & Ricker	"
VT 83-47	" Brighton Day-Use	"
VT 83-48	" Burton Island	"
Vt 83-49	" Silver Lake Dam	"
VT 83-50	Elizabeth Lund Home	"
Vt 83-51	Washington County Mental Health	"
Vt 83-52	RSVP Chittenden County	"
Vt 83-53	Central VT Community Act.	"
VT 83-54	Town of Brattleboro	"
VT 83-55	Elderly Services - Middlebury	"
VT 83-56	N.E. Kingdom Mental Health	"
VT 83-57	White River Trans. Serv.	"
VT 83-58	Agency of Transportation	"
Vt 83-59	Franklin-Grand Isle Mental Health Serv.	"
VT 83-60	Project Independence	"

REVIEWER: Please obtain further information concerning applications from contact person. Send questions or negative comments to State Clearinghouse referring to A-95 SAI Number.

A-95 List as of March 23, 1983.
State Planning Office
State-Federal Relations Division

SAI No.	APPLICANT	CONTACT	TYPE OF PROJECT	COST	FEDERAL AGENCY	SIGNOFF DATE
VT 83-48	Agency of Environmental Conservation	Peter Strobridge Forests, Parks & 828-3375	Burton Island Breakwater - extend and reconstruct existing breakwater	65,000	DOI NPS	4/20/83
VT 83-49	"	"	Silver Lake Dam Reconstruction removal & replacement of existing dam	90,623	"	"
VT 83-50	Elizabeth Lund Home	Holly Tuck P. O. Box 924 Burlington, VT 05402 864-7467	van for Family Resource Center		UMTA 16(b)(2)	"
VT 84-51	Washington County Mental Health	Elaine Lussier Box 647 Montpelier, VT 229-0591		60,000	"	"
VT 83-52	RSVP Chittenden County	Sally Conrad 3 Cathedral Sq. Burlington 05401 862-6444	continuation grant	51,989	RSVP/ACTION	"
VT 83-53	Central VT Community Action	Stephen Bailey 15 Ayers St. Barre, VT 05641 476-3218	special employment and training needs of VT's young seasonal farmworkers, ages 16-21	199,310	DOL	"
* VT 83-54	Town of Brattleboro	David M. Sichel 230 Main St. Brattleboro,VT 05301 257-5262	bus shelters and signs and subsidizes the operating expenses of fixed route	9,900	UMTA Sect.18	"

These projects must receive approval from Historic Preservation. Please contact [illegible] at 828-3226.

PUBLIC NOTICES

U. S. Department of the Army, placement of fill material, Green River, Hyde Park, VT; applicant: Morrisville Water and Light Department, P. O. Box 325, Morrisville, VT 05661

Permits authorized by the U. S. Army Corps of Engineers for in waters of Vermont:

Permit No. 12770, to maintain as completed, stone placed in Lake Champlain, at North Hero, Grand Isle County, Vermont. Applicant: Gordon & Simonne Kalan, P. O. Box 144, No. Hero, VT.

Permit No. 12782, to place fill and construct an embankment in Lake Memphremagog at Newport, Orleans County, VT. Applicant: Douglas Spates, Elm St., Newport, VT 05855

Permit No. 12771, to maintain as completed shore stabilization fill placed in Winooski River, Lake Champlain at Colchester, Chittenden County, Vermont. Applicant: C. & G. Scirbner, 117 Williams Rd., Colchester, VT.

VIEWER: Please obtain further information concerning applications from contact person. nd questions or negative comments to State Clearinghouse referring to A-95 SAI Number.

A-95 List as of March 23, 1983

State Planning Office
State-Federal Relations Division

SAI No.	APPLICANT	CONTACT	TYPE OF PROJECT	COST	FEDERAL AGENCY	SIGNOFF DATE
VT 83-55	Elderly Services	Henry Liesman 8 Weybridge St. Middlebury, VT05753 388-3983	RSVP and Project Independence II	7,600	UMTA 16(b)(2)	4/20/83
VT 83-56	Northeast Kingdom Mental Health Service, Inc.	Donald Craig P. O. Box 724 Newport, VT 05855 334-6744	15 passenger van	16,000	"	"
VT 83-57	White River Transportation Services; Inc.	David Palmer P. O. Box 70 Bethel, VT 05032 234-5388	3 maxi van type vehicles	40,000	"	"
VT 83-42	Lincoln St., Inc.	Richard J. Imhof P. O. Box 678 Springfield, VT05156 885-9533	four vehicles	40,000	"	"
VT 83-43	Bennington Project Independence	Maureen Curly 124 Pleasant St. Bennington,VT 05201 442-3045	15 passenger high-topped van	11,600	"	"
VT 83-44	Farm & Wilderness Foundation	Leonard Cadwallader Plymouth VT 05056 422-3761	reconstruction of dam at Woodward Reservoir and creation of public swimming access	300,000	FmHA	"
VT 83-45	Agency of Environmental Conservation	Peter Strobridge Forests, Parks & Recreation 828-3375	Sand Bar Beach Stabilization	40,000	DOI NPS	"
VT 83-46	"	"	Sewer System Replace. Stillwater & Ricker	50,000	"	"
VT 83-47	"	"	Brighton Day-Use-Area improve parking & beach & sewer & water	50,000	"	"

These projects must receive approval from Historic Preservation. Please contact Eric Gilbertson at 828-3226.

AGENCY OF ENVIRONMENTAL CONSERVATION AND ENVIRONMENTAL BOARD
PROJECT REVIEW SHEET

District # 3

Application #

THIS IS NOT A PERMIT

Applicant VT F P & R

Town BARNARD

On 20 MAR /1983 I reviewed information concerning a project on a tract or tracts of land of ____ acres, proposed by Forests Parks & Recreation. ~~The project will be on lands owned by~~ ATTN PETER STENBRIDGE, UNIT ADMINISTRATOR Barnard, Vermont, and is generally described as: the removal and replacement of an existing earthfill dam and outlet works at the Silver Lake Dam.

NO permit must be obtained for this project under the following permit programs which I have checked:

____ ACT 250 PROTECTION DIVISION PERMITS: ____ Deferral of Subdivision; ____ Public Building; ____ Subdivision; ____ Tent and Travel Trailer; ____ Mobile Home Park Law; ____ Stream Alteration Law; FISH AND GAME DEPT. PERMIT: ____ Stream Obstruction Permit

Prior permits from this office: #

The above jurisdictional determination is based upon the project specifically as described above and the following:

Rule 2(G)

THESE ARE THE ONLY PERMITS OBTAINABLE FROM THIS OFFICE. NO CONSTRUCTION OR SALE OF LOTS IS PERMITTED UNTIL ALL PERMITS CHECKED ABOVE HAVE BEEN ISSUED IN WRITING.

THIS IS AN ADVISORY OPINION AND MAY BE APPEALED. ANY PARTY WHO DISAGREES WITH THIS OPINION MAY REQUEST A REVIEW BY THE EXECUTIVE OFFICER OF THE ENVIRONMENTAL BOARD, (ACT 250), OR THE DIRECTOR OF THE PROTECTION DIVISION, AS APPROPRIATE. ANY SUCH REQUEST MUST BE MADE IN WRITING THROUGH THIS OFFICE BY 20 / APR /1983.

I also recommend that you contact the following Vermont State agencies because this project may need approval under their programs:

1. AGENCY OF ENVIRONMENTAL CONSERVATION, Montpelier, VT 05602
   - ____ Air Pollution Control (828-3395)
   - 2,3 Dams & Hydro Projects (828-3357)
   - ____ Lands Underlying Public Waters (828-2871)
   - 1 Discharge or Temporary Pollution Permit (828-3345)
   - ____ Sanitary Landfills (828-3395)
   - ____ Industrial Furnace/Boiler Conversions to Oil/Wood (828-3395)
   - ____ Use of Chemicals in state waters (828-2761)
   - ____ Extension of Sewer Lines (828-3345)
   - ____ Municipal Water Line Ext. (828-3345)
   - ____ Bulk Fuel/Chemical Storage/Hazardous Wastes (828-3395)
   - ____ Burning of Waste Oils/Solvents (828-3395)
2. DEPARTMENT OF LABOR AND INDUSTRY, Montpelier, VT 05602 - Tel. 828-2106
   - ____ Electrical Wiring Approval
   - ____ Fire Prevention Approval
   - ____ Access for the Handicapped Approval
   - ____ Boilers and Pressure Vessels
   - ____ Tramways and Ski Facilities
   - ____ Storage of Flammable Liquids, Explosives
   - ____ Elevators
   - ____ Plumbing in Single Family Residences served by Public Water/Sewer w/10 or more customers
3. DEPARTMENT OF HEALTH, Burlington, VT 05401 - Tel. 862-5701 (Contact: ____)
   - ____ Food, lodging, bakeries and children's camps
   - ____ Nursing homes, hospitals and homes for the aged
   - ____ Public water systems
   - ____ Extensions of water lines over 500'
4. DISTRICT TRANSPORTATION ADMINISTRATOR (Consult the telephone directory under VERMONT, STATE OF, Highways) (Contact: ____)
   - ____ Access to State Highways (Residential Driveways)
   - ____ Development within 500' of a limited access highway
5. AGENCY OF TRANSPORTATION, Montpelier, VT 05602 - Tel. 828-2823
   - ____ Signs (Travel Information Council) (828-2651)
   - ____ Construction within a state highway right-of-way (Utilities, Signs, Driveways) (828-2653)
   - ____ Airports and Landing Strips (828-2828)
   - ____ Junkyards (828-2587)
6. DEPARTMENT OF AGRICULTURE, Montpelier, VT 05602 - Tel. 828-2413 (Contact: ____)
   - ____ Use of Pesticides
   - ____ Milk Facilities
   - ____ Slaughter Houses
   - ____ Kennels
7. AGENCY OF HUMAN SERVICES, Waterbury, VT 05676 - Tel. 241-2158 (Contact: ____)
   - ____ Day Care Facilities
   - ____ Community Care Homes
   - ____ Residential Child Care Facilities
8. PUBLIC SERVICE BOARD (828-2319)
   - ____ Hydro Projects
   - ____ Alternative Sources of Energy
9. J ____ LOCAL PERMITS - Contact your town officials
10. OTHER: ____

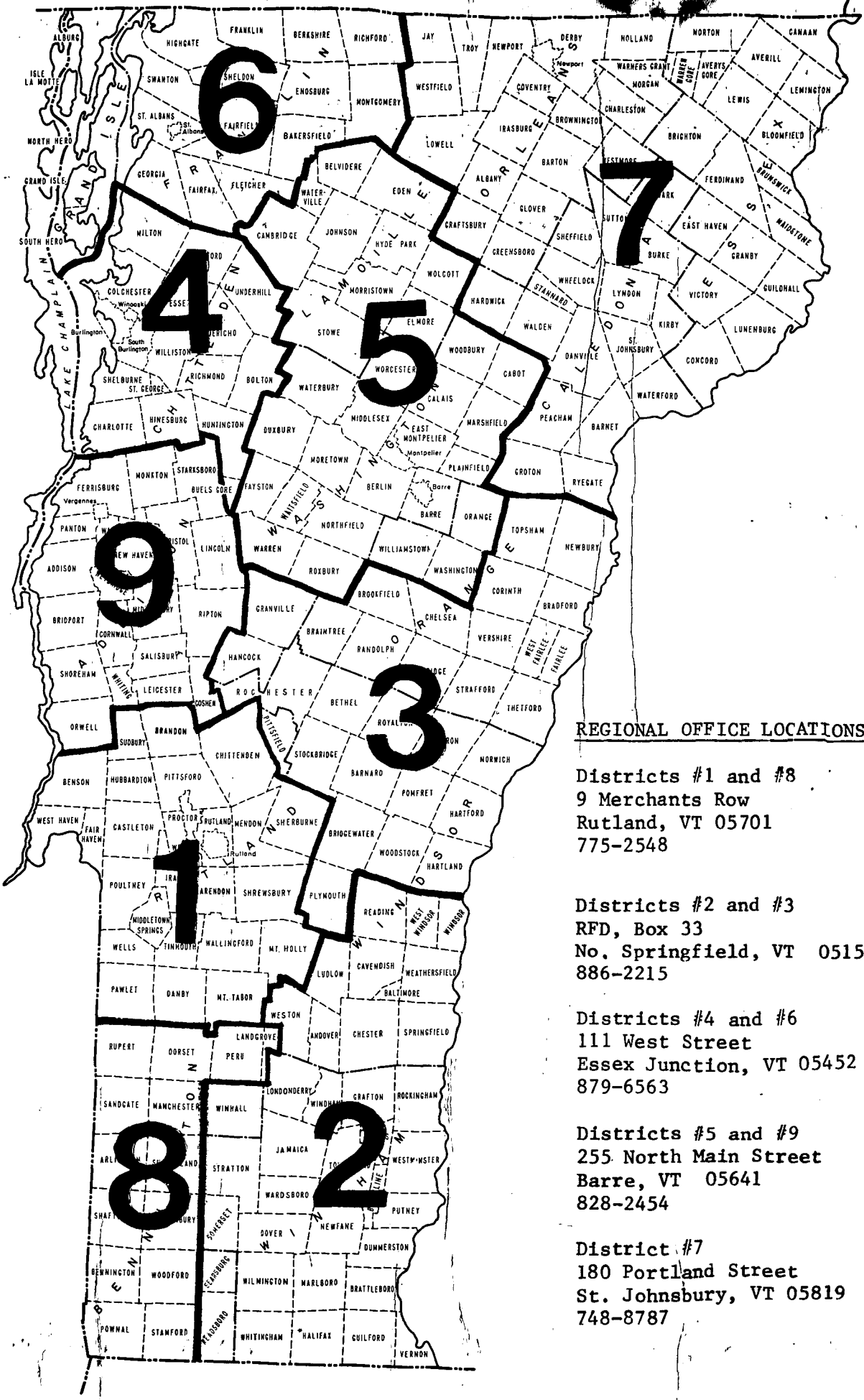
BY Wm H. Jewell
~~District Administrator~~/District Coordinator

RPI No Spnfld 886-2213
Regional Office Address and Telephone Number

Sent to 6084 parties: (yes) no

2/81-3000 White copy - Applicant Yellow Copy - File Pink Copy - Protection Division (Montpelier)

DISTRICT ENVIRONMENTAL COMMISSION BO[redacted] MAP



REGIONAL OFFICE LOCATIONS

Districts #1 and #8
9 Merchants Row
Rutland, VT 05701
775-2548

Districts #2 and #3
RFD, Box 33
No. Springfield, VT 05150
886-2215

Districts #4 and #6
111 West Street
Essex Junction, VT 05452
879-6563

Districts #5 and #9
255 North Main Street
Barre, VT 05641
828-2454

District #7
180 Portland Street
St. Johnsbury, VT 05819
748-8787

107 100M 2/82

STATE OF VERMONT

OFFICE MEMO

Shirley Aldrich, Recreation Division

M: Karl Jurentkuff, Environmental Engineer

E: August 8, 1983

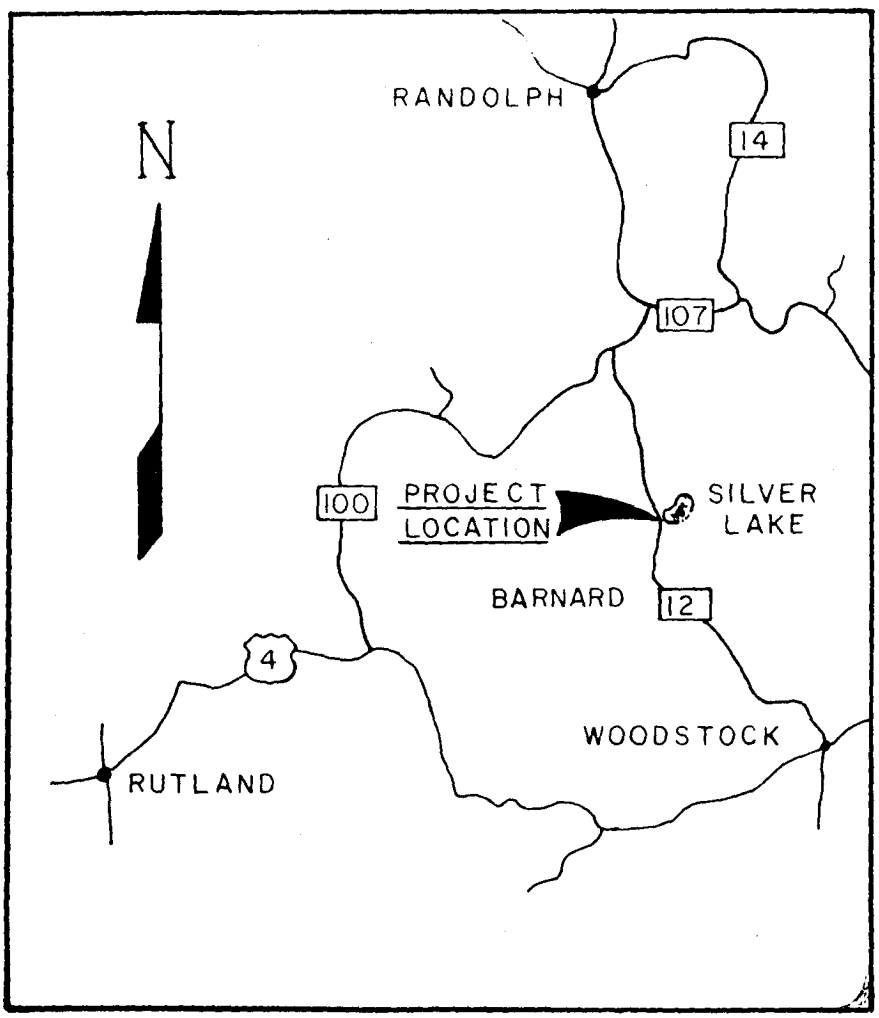
JECT: Flood Hazard Area Determination

APPROVAL	☐ NOTE AND SEE ME	☐ PER CONVERSATION
SIGNATURE	☐ NOTE AND RETURN	☐ AS REQUESTED
COMMENT	☐ NOTE AND FILE	☐ NECESSARY ACTION
REVIEW	☐ FOR YOUR INFORMATION	☐ GIVE ME THE FACTS
PREPARE REPLY FOR MY SIGNATURE		☐ SUGGESTIONS REQUESTE
YOUR ACTION REQUESTED BY THIS DATE		

REMARKS:

According to the Flood Hazard Boundary Map developed for the Town of Barnard by the Federal Insurance Administration the site in question is (✓) is not ( ) in a designated flood hazard area.

Karl L Jurentkuff



LOCATION PLAN

SCALE : 1" = 6 MILES

Silver Lake Dam Renovation

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS that Harry W. Hull and Naoma A. Hull, and Ralph L. Lessard and Joan H. Lessard of Barnard in the County of Windsor and State of Vermont, Grantors, in consideration of One Dollar ($1.00) paid to our full satisfaction by the State of Vermont, a sovereign state with capitol at Montpelier, County of Washington, Grantee, do hereby REMISE, RELEASE AND FOREVER QUITCLAIM unto the said State of Vermont, its successors or assigns forever, a certain parcel of land situated in Barnard in the County of Windsor and State of Vermont, described as follows, viz:

Being a portion of the same land and premises in the Town of Barnard, Vermont, conveyed to us by Warranty Deed from James H. Magnus Jr. and Margaret D. Magnus, dated May 24, 1960, and recorded in Book 33, Page 45 of the Barnard Land Records, and further described as follows:

Parcel 1. Being all our right, title and interest in the following described parcel.

Beginning at a point in the believed easterly boundary of State Aid Road #3, also known as "North Road", and one and one-half (1½) rods from its centerline, said point also being 37.2 feet distant southwesterly from the northwest corner of the Elizabeth Mussay Salvo residence;

Thence S 25°35'00" W a distance of 127.4 feet more or less to a point;

Thence N 38°39'00" W a distance of 185.4 feet more or less, crossing said State Aid Road #3, to a point;

Thence N 62°51'00" E a distance of 47.9 feet more or less, crossing the brook leading out of Silver Lake, to a point;

Thence S 60°04'30" E a distance of 109.0 feet more or less to a point, said point being approximately in the center of said State Aid Road #3;

Thence N 39°53'30" E a distance of 10.0 feet more or less to a point;

Thence S 79°54'00" E a distance of 27.8 feet more or less to the point of beginning, said parcel to contain approximately 0.3 acres.

Parcel 2. A permanent easement to enter on the land of the Grantors easterly of State Aid Road #3, but not to exceed a distance of 50 feet adjacent to Parcel 1 described above for the purpose of reconstructing and maintaining the Silver Lake outlet structure and appurtenances.

Barnard Town Clerks Office
7/19/68 at 1 P.M.
Book 35 — page 17

Reference is made to a Plan of Property entitled, "Property to be Acquired by the State of Vermont Department of Water Resources, Town of Barnard, Vermont", as surveyed on February 28, 1968, attached to and made a part of this deed, for more particular description.

Reference is hereby made to the above-mentioned deed and its records and to all prior deeds and their records for a more particular description of the land and premises herein conveyed.

TO HAVE AND TO HOLD all the Grantor's right, title and interest in and to said premises and appurtenances thereof to the State of Vermont, its successors or assigns forever.

AND, FURTHERMORE, the said Grantors, Harry W. Hull and Naoma A. Hull, and Ralph L. Lessard and Joan H. Lessard, do for themselves, their heirs and assigns, covenant with the said State of Vermont, its successors or assigns, that from and after the ensealing of these presents, that Harry W. Hull and Naoma A. Hull, and Ralph L. Lessard and Joan H. Lessard, will have and claim no right in and to said quitclaimed premises.

In Witness Whereof, the said Harry W. Hull and Naoma A. Hull, and Ralph L. Lessard and Joan A. Lessard, have hereunto set their hand and seal this 19 day of July A. D. 1968.

IN PRESENCE OF:

Hazel R. Davis

Susan G. Powell

Harry Hull (seal)

Naoma A Hull (seal)

Ralph L Lessard (seal)

Joan H Lessard (seal)

STATE OF VERMONT)
)
Windsor County, ss.)

At Barnard in said County this 19 day of July A. D. 1968 Harry W. Hull and Naoma A. Hull, and Ralph L. Lessard and Joan H. Lessard, personally appeared and they sealed and subscribed to be their free act and deed.

Before me, Hazel R. Davis
Notary Public

VERMONT PROPERTY TRANSFER TAX
ACKNOWLEDGMENT
RETURN NO. 7967
SIGNED Hazel R. Davis
TOWN CLERK
DATE July 19, 1968
RETURN RECEIVED

Approved as to form

Asst. Attorney General

DI Form 1350
(March 1956)

U.S. DEPARTMENT OF THE INTERIOR
ASSURANCE OF COMPLIANCE
(TITLE VI, CIVIL RIGHTS ACT OF 1964)

State of Vermont
Agency of Environmental Conservation (hereinafter called "Applicant-Recipient")
(Name of Applicant-Recipient)

HEREBY AGREES THAT IT will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Department of the Interior Regulation (43 CFR 17) issued pursuant to that title, to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant-Recipient receives financial assistance from National Park Service
Bureau or Office

Hereby Gives Assurance That It will immediately take any measures to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant-Recipient by National Park Service This assurance obligates the
Bureau or Office

Applicant-Recipient, or in the case of any transfer of such property, any transferee for the period during which the real property or structure is used for a purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance obligates the Applicant-Recipient for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Applicant-Recipient for the period during which the Federal financial assistance is extended to it by
National Park Service
Bureau or Office

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts or other Federal financial assistance extended after the date hereof to the Applicant-Recipient by the bureau or office, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Applicant-Recipient recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant-Recipient, its successors, transferees, and assignees, and the person or persons whose signature appear below are authorized to sign this assurance on behalf of the Applicant-Recipient.

State of Vermont
Agency of Environmental Conservation

8/9/88
DATED

Stephen B. Sease
APPLICANT RECIPIENT
Stephen B. Sease, Alternate
State Liaison Officer

Montpelier, Vermont 05602
APPLICANT-RECIPIENT'S MAILING ADDRESS

U.S. GOVERNMENT PRINTING OFFICE 1966 O-229
931-E

LAND AND WATER CONSERVATION FUND AGREEMENT

General Provisions

Part I - Definitions

A. The term "NPS" as used herein means the National Park Service, United States Department of the Interior.

B. The term "Director" as used herein means the Director of the National Park Service, or any representative lawfully delegated the authority to act for such Director.

C. The term "Manual" as used herein means the National Park Service Manual (Grants-in-Aid Series).

D. The term "project" as used herein means a single project, a consolidated project, a project element of a consolidated project or project stage which is subject to the project agreement.

E. The term "State" as used herein means the State or Territory which is a party to the project agreement, and, where applicable, the political subdivision or public agency to which funds are to be transferred pursuant to this agreement. Wherever a term, condition, obligation, or requirement refers to the State, such term, condition, obligation, or requirement shall also apply to the recipient political subdivision or public agency, except where it is clear from the nature of the term, condition, obligation, or requirement that it is to apply solely to the State.

F. The term "Secretary" as used herein means the Secretary of the Interior, or any representative lawfully delegated the authority to act for such Secretary.

Part II - Continuing Assurances

The parties to the project agreement specifically recognize that the Land and Water Conservation Fund assistance project creates an obligation to maintain the property described in the project agreement consistent with the Land and Water Conservation Fund Act and the following requirements.

Further, it is the acknowledged intent of the parties hereto that recipients of assistance will use moneys granted hereunder for the purposes of this program, and that assistance granted from the Fund will result in a net increase, commensurate at least with the Federal cost-share, in a participant's outdoor recreation. It is intended by both parties hereto that assistance from the Fund will be added to, rather than replace or be substituted for, State and local outdoor recreation funds.

A. The State agrees, as recipient of this assistance, that it will meet the following specific requirements and that it will further impose these requirements, and the terms of the project agreement, upon any political subdivision or public agency to which funds are transferred pursuant to the project agreement. The State also agrees that it shall be responsible for compliance with the terms of the project agreement by such a political subdivision or public agency and that failure by such political subdivision or public agency to so comply shall be deemed a failure by the State to comply with the terms of this agreement.

B. The State agrees that the property described in the project agreement and the dated project boundary map made part of that agreement is being acquired or developed with Land and Water Conservation Fund assistance, or is integral to such acquisition or development, and that, without the approval of the Secretary, it shall not be converted to other than public outdoor recreation use but shall be maintained in public outdoor recreation in perpetuity or for the term of the lease in the case of leased property. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location. This replacement land becomes subject to Section 6(f)(3) protection. The approval of conversion shall be at the sole discretion of the Secretary, or his designee. Prior to the completion of this project, the State and the Director may mutually alter the area described in the project agreement and the dated project boundary map to provide the most satisfactory public outdoor recreation unit, except that acquired parcels are afforded Section 6(f)(3) protection as Fund reimbursement is provided.

In the event the NPS provides Land and Water Conservation Fund assistance for the acquisition and/or development of property subject to reversionary interests with full knowledge of those reversionary interests, conversion of said property to other than public outdoor recreation uses as a result of such reversionary interest being exercised is approved. In receipt of this approval, the State agrees to notify the Service of the conversion as soon as possible and to seek approval of replacement property in accord with the conditions set forth in these provisions. The State further agrees to effectuate such replacement within a reasonable period of time, acceptable to the Service, after the conversion of property takes place. The provisions of this paragraph are also

applicable to: leased properties acquired and/or developed with Fund assistance where such lease is terminated prior to its full term due to the existence of provisions in such lease known and agreed to by the Service; and properties subject to other outstanding rights and interests that may result in a conversion when known and agreed to by the Service.

C. The State agrees that the benefit to be derived by the United States from the full compliance by the State with the terms of this agreement is the preservation, protection, and the net increase in the quality of public outdoor recreation facilities and resources which are available to the people of the State and of the United States, and such benefit exceeds to an immeasurable and unascertainable extent the amount of money furnished by the United States by way of assistance under the terms of this agreement. The State agrees that payment by the State to the United States of an amount equal to the amount of assistance extended under this agreement by the United States would be inadequate compensation to the United States for any breach by the State of this agreement. The State further agrees, therefore, that the appropriate remedy in the event of a breach by the State of this agreement shall be the specific performance of this agreement.

D. The State agrees to comply with the policies and procedures set forth in the National Park Service (NPS) Grants-in-Aid Manual. Provisions of said Manual are incorporated into and made a part of the project agreement.

E. The State agrees that the property and facilities described in the project agreement shall be operated and maintained as prescribed by Manual requirements.

F. The State agrees that a permanent record shall be kept in the project participant's public property records and available for public inspection to the effect that the property described in the scope of the project agreement, and the dated project boundary map made part of that agreement, has been acquired or developed with Land and Water Conservation Fund assistance and that it cannot be converted to other than public outdoor recreation use without the written approval of the Secretary of the Interior.

G. Nondiscrimination

1. The State shall comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of the Act no person in the United States shall, on the ground of race, religion, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of any property or facility acquired or developed pursuant to the project agreement. The State shall immediately take any measures necessary to effectuate this provision. This assurance shall be binding on the State or any political

subdivision or other appropriate public agency to which Fund assistance or property acquired or developed with Fund assistance has been transferred for public recreation purposes.

2. The State shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) prohibiting employment discrimination where (1) the primary purpose of a grant is to provide employment or (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.

3. The State shall comply with the regulations and guidelines promulgated pursuant to the Civil Rights Act of 1964 by the Secretary of the Interior and the National Park Service.

4. The provisions of the first three paragraphs apply to any part of the recreation system within which the assisted facility or property exists.

5. The State shall not discriminate against any person on the basis of residence, except to the extent that reasonable differences in admission or other fees may be maintained on the basis of residence as set forth in the Manual.

Part III - Project Assurances

A. Applicable Federal Circulars

The State shall comply with applicable regulations, policies, guidelines and requirements including Office of Management and Budget Circulars No. A-95 (Evaluation, review, and coordination of Federal assistance programs and projects) and A-102 (Uniform administrative requirements for grants-in-aid to State and local governments) and FMC 74-4 (Cost principles applicable to grants and contracts with State and local governments) as they relate to the application, acceptance and use of Federal funds for this federally assisted project.

B. Project Application

1. The Application for Federal Assistance bearing the same project number as the agreement and associated documents is by this reference made a part of the agreement.

2. The State possesses legal authority to apply for the grant, and to finance and construct the proposed facilities. A resolution, motion or similar action has been duly adopted or passed authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the State to act in connection with the application and to provide such additional information as may be required.

3. The State has the ability and intention to finance the non-Federal share of the costs for the project. Sufficient funds will be available to assure effective operation and maintenance of the facilities acquired or developed by the project.

C. Project Execution

1. The project period shall begin with the date of approval of the project agreement or the effective date of a waiver of retroactivity and shall terminate at the end of the stated or amended project period unless the project is completed or terminated sooner in which event the project period shall end on the date of completion or termination. For project elements added to a consolidated project, the project period will begin on the date the project element is approved.

2. The State shall transfer to the project sponsor identified in the Application for Federal Assistance or the Description and Notification Form all funds granted hereunder except those reimbursed to the State to cover administrative expenses.

3. The State will cause work on the project to be commenced within a reasonable time after receipt of notification that funds have been approved and assure that the project will be prosecuted to completion with reasonable diligence.

4. The State will require the facility to be designed to comply with the "American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped," No. A117.1-161, as modified (41 CFR 101-17.703). The State will be responsible for conducting inspections to insure compliance with these specifications by the contractor.

5. The State shall secure completion of the work in accordance with approved construction plans and specifications, and shall secure compliance with all applicable Federal, State, local laws and regulations.

6. In the event the project covered by the project agreement, including future stages of the project, cannot be completed in accordance with the plans and specifications for the project; the State shall bring the project to a point of recreational usefulness agreed upon by the State and the Director or his designee.

7. The State will provide for and maintain competent and adequate architectural engineering supervision and inspection at the construction site to insure that the completed work conforms with the approved plans and specifications; that it will furnish progress reports and such other information as the NPS may require.

8. The State will comply with the terms of Title II and Title III, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646), 94 Stat. 1894 (1970), and the applicable regulations and procedures implementing such Act for all real property acquisitions and where applicable shall assure that the Act has been complied with for property to be developed with assistance under the project agreement.

9. The State will comply with the provisions of: Executive Order 11988, relating to evaluation of flood hazards; Executive Order 11288, relating to the prevention, control, and abatement of water pollution; and Executive Order 11990, relating to the protection of wetlands.

10. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance.

11. The State will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities, pursuant to 40 CFR, Part 15.20 and that it will notify the NPS of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be utilized in the project is under consideration for listing by the EPA. The State agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970. The State further agrees to insert this clause into any contract or subcontract in excess of $100,000.

12. It will assist the NPS in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 U.S.C. 470), Executive Order 11593, and the Archeological and Historic Preservation Act of 1966 (16 U.S.C. 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to effects (see 36 CFR Part 800.8) by the activity, and notifying the Federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the Federal grantor agency to avoid or mitigate adverse effects upon such properties.

D. Construction Contracted for by the State Shall Meet the Following Requirements:

1. Contracts for construction in excess of $10,000 shall be awarded through a process of competitive bidding involving formal advertising, with adequate purchase description, sealed bids, and public openings. Copies of all advertisements, bids, and a copy of the contract shall be retained for inspection by the Director.

2. The State shall inform all bidders on contracts for construction that Federal funds are being used to assist in construction.

3. Written change orders shall be issued for all necessary changes in the facility being constructed under contracts of $10,000 or more. Such change orders shall be made a part of the project file and should be kept available for audit.

4. Contracts for construction shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented by Department of Labor regulations (29 CFR, Part 3).

5. The State will comply with other procurement standards of OMB Circular A-102, Attachment O, except for provisions related to compliance with Davis Bacon Act requirements (unless required by a program providing supplemental funding). Should supplemental funding be provided which requires compliance with Davis Bacon Act requirements, all construction contracts awarded by the grantee and subgrantee in excess of $2,000 shall include a provision for compliance with such Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR, Part 5).

6. The State shall incorporate, or cause to be incorporated, into all construction contracts exceeding $10,000 (ten thousand), the following provisions:

"During the performance of this contract, the contractor agrees as follows:

"(1) The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

4. The State and the Director shall be responsible for enforcing the above conflict of interest provisions.

F. Hatch Act

The State will comply with the provisions of the Hatch Act which provides that no officer or employee of the State whose principal employment is in connection with any activity which is financed in whole or in part pursuant to this agreement shall take part in any of the political activity prescribed in the Hatch Political Activity Act, 5 U.S.C. Sec. 118k (1964), with the exceptions therein enumerated.

G. Project Costs

1. Project costs eligible for assistance shall be determined upon the basis of the criteria set forth in the Manual and FMC 74-4.

2. The agreement may include the use of the indirect cost rate currently approved, in accordance with FMC 74-4, for the State that is a party to this agreement.

H. Project Administration

1. The State shall promptly submit such reports and documentation as the Director may request.

2. Any moneys advanced to the State are "public moneys" (owned by the Federal Government) and shall be deposited in a bank with FDIC insurance coverage and the balance exceeding the FDIC coverage shall be collaterally secured as provided for in 12 U.S.C. 265.

3. The State shall use any funds received by way of advanced payment from the United States under the terms of this agreement solely for the project or project stage described in the agreement.

4. Properties and facilities acquired or developed with Fund assistance shall be available for inspection by the Service at such intervals as the Director shall require. The State will promptly submit onsite inspection reports prepared under existing agreements between the Service and the State.

I. Retention and Custodial Requirements for Records

1. Financial records, supporting documents, statistical records, and all other records pertinent to this grant shall be retained for a period of three years; except the records shall be retained beyond the three-year period if audit findings have not been resolved.

2. The retention period starts from the date of the final expenditure report for the project or the consolidated project element.

3. State and local governments are authorized to substitute microfilm copies in lieu of original records.

4. The Secretary of the Interior and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the State and local governments and their subgrantees which are pertinent to a specific project for the purpose of making audit, examination, excerpts and transcripts.

J. Project Termination

1. The Director may temporarily suspend Federal assistance under the project pending corrective action by the State or pending a decision to terminate the grant by the Service.

2. The State may unilaterally terminate the project or consolidated project element at any time prior to the first payment on the project or consolidated project element. After the initial payment, the project may be terminated, modified, or amended by the State only by mutual agreement.

3. The Director may terminate the project in whole, or in part, at any time before the date of completion, whenever it is determined that the grantee has failed to comply with the conditions of the grant. The Director will promptly notify the State in writing of the determination and the reasons for the termination, together with the effective date. Payments made to States or recoveries by the Service under projects terminated for cause shall be in accord with the legal rights and liabilities of the parties.

4. The Director or State may terminate grants in whole, or in part at any time before the date of completion, when both parties agree that the continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated. The grantee shall not incur new obligations for the terminated portion after the effective date, and shall cancel as many outstanding obligations as possible. The NPS may allow full credit to the State for the Federal share of the noncancellable obligations, properly incurred by the grantee prior to termination.

5. Termination either for cause or for convenience requires that the project in question be brought to a state of recreational usefulness agreed upon by the State and the Director or that all funds provided by the National Park Service be returned.

K. Lobbying with Appropriated Funds

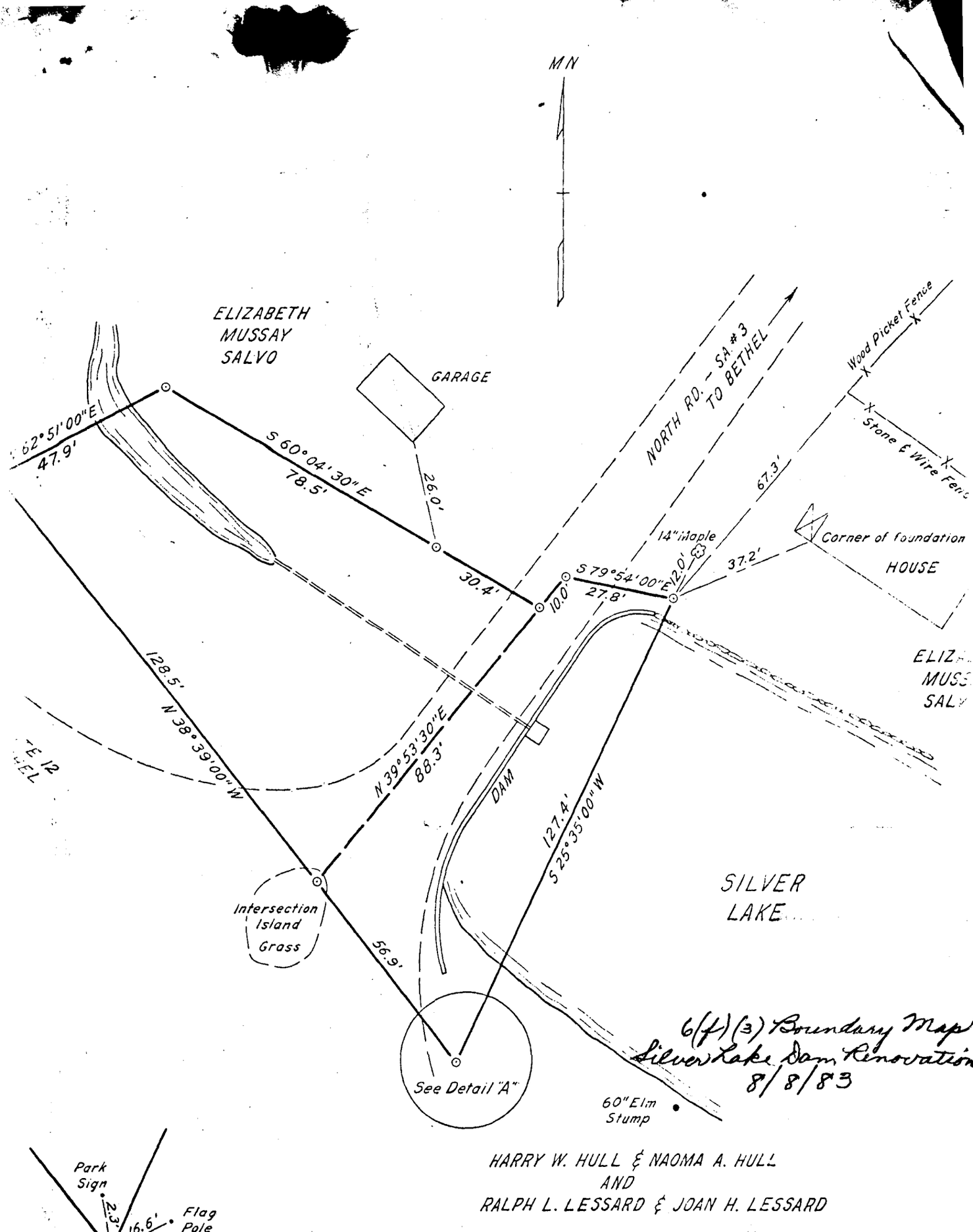
Land and Water Conservation Fund monies will be used in conformance with 18 USC 1913 which states that: "No part of the money appropriated by any enactment of Congress shall, in the absence of express authorization by Congress, be used directly or indirectly to pay for any personal service, advertisement, telegram, telephone, letter, printed or written matter, or other device, intended or designed to influence in any manner a Member of Congress, to favor or oppose, by vote or otherwise, any legislation or appropriation by Congress, whether before or after the introduction of any bill or resolution proposing such legislation or appropriation; but this shall not prevent officers or employees of the United States or of its departments or agencies from communicating to Members of Congress on the request of any Member or to Congress, through the proper official channels, requests for legislation or appropriations which they deem necessary for the efficient conduct of the public business.

STATE OF VERMONT
Agency of Environmental Conservation

_____ _____
Dated Alternate State Liaison Officer

TOWN, CITY, SCHOOL, DISTRICT

_____ _____
Dated (Authorized Official)



For more topographic detail reference
de to B.O.R. Project 44-00044 of the
tment of Water Resources (1968)

PLAN OF PROPERTY
IN TOWN OF BARNARD
TO BE AQUIRED BY
STATE OF VERMONT
DEPT. OF WATER RESOURCES
SCALE: 1" = 30'

Surveyed by C. Bacon, A. Rouleau, R. Hall Date 2/2
Plotted by A. Rouleau
Traced by R. Pratt
Approved by _____ Date 3/7/