Loan Feasibility Study for Enlargement of the Lower Lone Pine Reservoir

Sponsored by

Crystal Lakes Water and Sewer Association

FEASIBILITY STUDY APPROVAL
Pursuant to Colorado Revised Statutes 37-60-121 &122, and in accordance with policies adopted by the Board, the CWCB staff has determined this Feasibility Study meets all applicable requirements for approval.

Ryan Edel 11-15-2011
Signed Date

Prepared by

States West Water Resources Corp.
1904 East 15th Street
Cheyenne, WY

July 2011

COLORADO WATER CONSERVATION BOARD
WATER PROJECT LOAN APPLICATION

Instructions: This application should be typed or printed neatly with black ink. Attach additional sheets as necessary to fully answer any question or to provide additional information that would be helpful in the evaluation of this application. When finished, please sign and return this application to:

THE COLORADO WATER CONSERVATION BOARD
Finance Section
1580 Logan St., Suite 600
Denver, CO 80203
Attn: Anna Mauss, P.E.
Phone (303) 866-3441 x 3224 Fax (303) 894-2578
Email anna.mauss@state.co.us

Part A. - Description of the Applicant (Generally, the applicant is also the prospective owner and sponsor of the proposed project)

1. Name of applicant Crystal Lakes Water & Sewer Association

   Mailing Address 300 Tami Road

   Red Feather Lakes, CO 80545

   Business Phone (970) 881-2250 Fax (970) 881-2085

   Federal ID Number 84-0723864 email crystal-lakes@crystal-lakes.org

2. Person to contact regarding this application:

   Name Steven N. Koeckeritz

   Position/Title Crystal Lakes Water & Sewer Association Board President

   Address 3921 Capitol Drive, Fort Collins, CO 80526-2907

   Business Phone (970) 223-2525 Cell (970) 217-6007

   Email steve.koeckeritz@comcast.net

3. Type of organization (Ditch Co., Irrigation District, Municipality, etc.):Home Owners' Assoc.

   Date of Annual Meeting May 28, 2011 (annually last Saturday of May)

   Is the organization incorporated in the State of Colorado? YES X NO_____ (If YES, please include a copy of the articles of incorporation, and the bylaws)

4. Please provide a brief description of the owner's existing water supply facilities and describe any existing operational or maintenance problems. Attach a map of the service area

   See Notebook Tab – Part A

   For existing facilities indicate:

   Number of property owners 1,657 or Number of customers served 1,657

   Current Base Assessment per lot $100.00 Number of shares N/A

   Special Assessment for LLPL per lot $70.00 as needed for the life of the loan.

   Number of acres irrigated: 0 (Zero) Water Rights: 10.5 CFS on North Lone Pine Creek currently stored in Lower Lone Pine Lake; additionally, 271 acre feet on North Lone Pine Creek for future storage (including the expansion of Lower Lone Pine Lake).

   Average water diverted per year: See Notebook Tab – Part A

Part B. - Description of the Project

1. Name of the Project Lone Pine Reservoir Enlargement

2. Purpose of this loan application. Check one.

   _____ New project
   _____ Rehabilitation or replacement of existing facility
   __X__ Enlargement of existing facility
   _____ Emergency Repair
   _____ Other (describe) _____

3. If the project is for rehabilitation of an existing reservoir, is the reservoir currently under a storage restriction order from the State Engineer? YES ___ NO ___

4. General location of the project. (Please include county, and approximate distance and direction from nearest town, as well as legal description, if known.

   Lone Pine Dam, W. Div. 1., DAMID 030416, Larimer County, Colorado, T 100N, R 0730W, SE ¼ S. 7, See Notebook Tab – Section 404 Permit Application Package

5. Please provide a brief narrative description of the proposed project including purpose, need, facilities, type of water uses to be served and service area. Attach separate sheet, if needed.

   See Notebook Tab – Section 404 Permit Application Package

6. Will the acquisition of additional water rights be necessary? YES _____ NO __X__

   If YES, please explain. _____

7. Please list the names, addresses and phone numbers of the Applicants' engineer(s) and attorney(s).

NAME	ADDRESS and PHONE
Attorney:	
Robert F. T. Krassa	2344 Spruce Street, Suite A, Boulder, CO 80302, 303-443-3617
States West Water Resources, Corp.	
Michael O'Grady	1904 E. 15th Street, Cheyenne, WY 82003 307-634-7848
Anderson Consulting Engineers, Inc.	
Scott R. Parker, E.I.T.	375 Horsetooth, Bldg. 5, Ft. Collins, CO 80525 970-226-0120

8. List any feasibility studies or other investigations that have been completed or are now in progress for the proposed project. If so, submit one copy of the study with this application

   See Notebook Tab B – a. Army Corps of Engineers Section 404 Permit, b. Colorado Section 401 Permit, c. SPWRAP Certificate, d. Section 404 Permit Application Package, e. Colorado Water Court Decrees, f. Draft Plans and Specifications

9. Estimated cost of the project. Please include estimated engineering costs, and estimated construction costs, if known.

   For details see Notebook Tab – Plans & Specifications

Estimated Engineering Costs:$	$ 90,000.00	
Estimated Construction Costs:	$ 1,650,000.00	
Estimated Other Costs:	$ 860,000.00	(land, final designs, permitting, etc.)
Estimated Total Costs:	$ 2.6 million	

10. Loan amount and terms you are requesting.

Requested Loan Amount:	$ 2 million	(Usually 90 % of est. Total Costs)
Term (length) of loan:	30 years	(Usually 10, 20, or 30 years)
Interest Rate:	4%	(Please call for our current rates)

Part C. - Project Sponsor Financial Information

Because the CWCB's Fund is a revolving fund, it is important that the project sponsor have the financial capacity to repay any loans made by the CWCB. The following information is needed to assist the CWCB in a preliminary assessment of the applicant's financial capacity. The project sponsor will submit the three most recent annual financial statements.

1. List any existing long-term liability (multi-year) or indebtedness that exceeds one thousand dollars. For example, bank loans, government agency loans, bond issues, accounts payable, etc. Include names and addresses of lenders, amounts, due dates and maturity dates.

Lender Name & Address	Remaining Amount	Annual Payment	Maturity Date
(None)	$0.00	$0.00	

2. Are any of the above liabilities now in default, or been in default at any time in the past? YES____ NO __X__. If YES, please give detailed explanation.

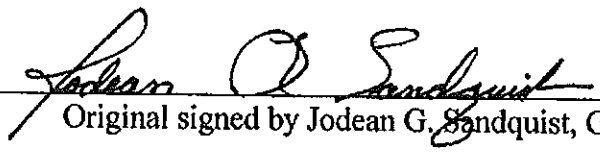
Please provide a brief narrative description of sources of funding, in addition to the CWCB, which have been explored for this project (Examples would be Banks, USDA Rural Development, NRCS, Colorado Water Resources and Power Development Authority, Colorado Division of Local Government, etc.). Funding will be through an annual Special Assessment to each property within the Crystal Lakes Water Augmentation Plan area, as administered by the Crystal Lakes Water & Sewer Association.

4. What collateral will you be offering for this loan? Possibilities include a pledge of revenues, the project itself, real estate, water rights. Pledge of revenues from the annual Special Assessment for LLPL to each lot of the Crystal Lakes Water & Sewer Association.

Note:

Audits enclosed for FY 08-09 and FY 09-10, and current financials through January 31, 2011.

The above statements are true, to the best of my knowledge:

Signature of Applicant 
Original signed by Jodean G. Sandquist, General Manager

Printed Name Jodean G. Sandquist

Title General Manager

Date July 11, 2011

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Feasibility Study
Lower Lone Pine Reservoir

Introduction (Need for the Project)

The Crystal Lakes Water and Sewer Association (CLWSA) is pursuing the enlargement of Lower Lone Pine Lake in the North Lone Pine Creek Basin to utilize it as an alternate place of storage for conditional water rights associated with Upper Lone Pine Lake, which has not been constructed. Water stored under the Upper Lone Pine Lake rights will be utilized to augment depletions to North Lone Pine Creek due to well water consumption from residences in the Crystal Lakes Community, as required by the decreed augmentation plan (Division 1 Water Court Case Nos. W-7631-74 and W-5840-77). Lower Lone Pine Lake is an on-channel reservoir on North Lone Pine Creek with a current capacity of 10.5 acre-feet that is filled under an absolute water right. A proposed enlargement has been designed for a capacity of 100.5 acre-feet of storage.

Project Sponsor

CLWSA is a nonprofit corporation governed by directors elected by Crystal Lakes property owners. Crystal Lakes is a private mountain subdivision located in Larimer County near Red Feather Lakes, Colorado. Crystal Lakes was established in 1969 and contains 1,656 lots distributed over more than 4,800 acres. More than 800 dwellings have been built to date. The CLWSA is responsible for administering the water rights augmentation plan for Crystal Lakes and the surrounding area, which enables property owners to obtain well permits. The CLWSA articles of incorporation and by-laws are included in Appendix A.

Hydrology and Water Rights

Lower Lone Pine Reservoir is located on North Lone Pine Creek and is filled by waters from North Lone Pine Creek. North Lone Pine Creek is a tributary to the North Fork of the Cache la Poudre River. CLWSA owns conditional storage rights for Upper Lone Pine Lake, which have dates of July 26, 1973 (93.93 acre-feet), June 30, 1975 (25.48 acre-feet) and October 14, 1989 (151.79 acre-feet). The total of the rights for Upper Lone Pine Lake is 271 acre-feet. CLWSA also holds an absolute right for Lower Lone Pine Lake with a date of December 12, 1968 of 10.5 acre-feet. The total of CLWSA's rights is 281.5 acre-feet, and all are junior in the Cache la Poudre and greater South Platte basins. A summary of water rights is found in Appendix B.

Project Descriptions and Alternatives

The purpose of this project is to enlarge Lone Pine Reservoir to a capacity of 100.5 acre-feet. The enlargement is necessary to augment depletions to North Lone Pine Creek due to well water consumption within Crystal Lakes. The following alternatives were considered:

1. The no-action alternative.
2. Enlargement of Lone Pine Reservoir.
3. Agricultural Water Purchase.
4. Enlargement to Panhandle Reservoir.
5. Upper Lone Pine Lake Dam.
6. Off-Channel Reservoir Site.

Alternative No. 1 was considered unacceptable because it would not satisfy the water augmentation requirement.

Alternative No. 2 was selected because it will allow CLWSA to augment flows when wells are out of allocation so they can continue to consume water from wells.

Alternative No. 3 was considered unacceptable because it would not satisfy the intent of the water augmentation requirement and because of logistical problems.

Alternative No. 4 was considered unacceptable due to wetlands impacts, costs and water supply.

Alternative No. 5 was considered unacceptable due to wetlands impacts.

Alternative No. 6 was considered unacceptable due to anticipated costs to acquire U.S. Forest Service lands are beyond the ability of the CLWSA's ability to pay.

A complete alternative analysis can be found in Appendix C.

The selected alternative, Alternative No. 2, involves a 20 foot centerline raise of the existing embankment, rehabilitation of the outlet works, the addition of an overflow structure, a new spillway, and mitigation of wetlands with the construction of a berm with an overflow structure. Preliminary design drawings can be found in Appendix D.

The estimated cost of the completed project is $1,692,250. The cost breakdown is summarized in Table 1.

Table 1. Lone Pine Reservoir Enlargement Cost Estimate

Item No.	Description	Unit	Estimated Quantity	Unit Price (Figures)	Bid Amount (Figures)
1	Mobilization	LS	LS	$100,000.00	$100,000.00
2	Sedimentation Control	LS	LS	$5,000.00	$5,000.00
3	Dewatering & Diversion	LS	LS	$20,000.00	$20,000.00
4	Demolition	LS	LS	$10,000.00	$10,000.00
5	Clearing and Grubbing	AC	7	$700.00	$4,900.00
6	Stripping, Stocking, & Placing Topsoil	CY	4,000	$3.00	$12,000.00
7	Excavation - Soil	CY	10,000	$4.00	$40,000.00
8	Excavation - Rock	CY	1,500	$15.00	$22,500.00
9	Bedrock Surface Preparation	LS	LS	$20,000.00	$20,000.00
10	Dam Embankment - Zone 1 - Core	CY	4,500	$12.00	$54,000.00
11	Dam Embankment - Zone 2	CY	7,000	$8.00	$56,000.00
12	Dam Embankment - Zone 3 - Rock Fill	CY	17,000	$6.00	$102,000.00
13	Dam Soil Cement	CY	2,500	$100.00	$250,000.00
14	8" HDPE Dam Toe Drain Pipe	LF	20	$50.00	$1,000.00
15	Riprap	CY	2,000	$100.00	$200,000.00
16	Grouted Riprap	CY	100	$150.00	$15,000.00
17	Reservoir Overflow	LS	LS	$50,000.00	$50,000.00
18	Reservoir Outlet Works	LS	LS	$75,000.00	$75,000.00
19	Wetland Mitigation Miscellaneous Fill	CY	4,000	$4.00	$16,000.00
20	Wetland Mitigation Embankment	CY	900	$8.00	$7,200.00
21	Wetland Mitigation Soil Cement	CY	500	$100.00	$50,000.00
22	Wetland Mitigation Overflow	LS	LS	$20,000.00	$20,000.00
23	Misc. Site Fill	CY	350	$4.00	$1,400.00
24	24" Corrugated HDPE Culvert	LF	75	$50.00	$3,750.00
25	Revegetation (Upland)	AC	3	$1,250.00	$3,750.00
26	Revegetation (Wetland and Riparian)	AC	0.7	$5,000.00	$3,500.00
27	Instrumentation	LS	LS	$20,000.00	$20,000.00
28	Flume	LS	LS	$2,000.00	$2,000.00
29	Force Account	FA	FA	$100,000.00	$100,000.00
				Construction Cost Sub-Total:	$1,265,000.00
				Engineering:	$90,000.00
				Sub-Total:	$1,355,000.00
				15% Contingency:	$203,250.00
				CONSTRUCTION COST TOTAL:	$1,558,250.00
				Preparation of Final Designs and Specifications:	$91,000.00
				TOTAL PROJECT COSTS:	**$1,649,250.00**

Implementation Schedule

The final design has been submitted to the State Engineers' Office and has not been approved yet. Construction is expected to begin in July 2012 and be completed by March 2013.

Permitting/Institutional Considerations

After pursing a range of alternatives to the U.S. Army Corps of Engineers (USACE), the Lower Lone Pine Reservoir was ultimately determined to be the "least environmentally damaging" of those investigated and was ultimately permitted by the ASACE on November 18, 2010. State of Colorado Department of Public Health and Environment – Section 401 Water Quality Certification. The Colorado Department of Public Health and Environment (CDPHE) also require the acquisition of a Section 401 State Water Quality Certification of the Section 404 Permit Application. The 401 Certification applies to both the construction and operation of the project and will apply to the water quality impacts of the project. This permit was issued on September 3, 2010. The required ASACE and CDPHE permits are provided in Appendix E. Several miscellaneous construction related permits may also be required for Air Quality, Burn Permits, etc. and will be the responsibility of the construction contractor selected. There is a pathway to obtain all necessary permits, and no insuperable obstacles are reasonably anticipated.

CLWSA will be the lead for the financing, design, and construction of the project and will be the entity entering into contracts and agreements with the various entities for the services provided by each.

Financial Analysis

The CLWSA is applying for a loan from the CWCB in the maximum amount of $2,000,000 at 4% interest for a 30-year term to accommodate approximately 75% of the estimated $2,600,000 total cost of the project. CLWSA has or will pay the additional 25% of project costs through assessments that are charged to a total of 1,656 lots within the CLWSA service area. The CLWSA will pay any additional costs that exceed the estimated project costs.

Given the above request, the total annual payment would be approximately $115,700 for a 30 year period. The current special assessment for this project is $70/Lot/Year or approximately $116,000 per year.

Table 2 – Financial Summary

Project Cost		$2,600,000
Loan Amount (75% of Project Cost)		$2,000,000
CWCB Loan Payment		$115,700
Number of Lots		1,656
Current Annual Special Assessment for this project		$70/Year/Lot
Future Assessments		As needed
Annual Project Cost per acre-foot ($116,000/100AF)		$1,160
Breakdown of total Project Costs		
Engineering/Permitting Assistance/Hydrology		$376,000
Legal		$ 70,000
Land Acquisition Costs to-date		$320,000
Anticipated additional Land Acquisition Costs		$184,000
Engineers Estimate of Construction Costs		$1,650,000
Total	=	$2,600,000

Credit Worthiness

The Crystal Lakes Water and Sewer Association (CLWSA) currently has no debt. It began instituting a Special Assessment for this project in 2001 to help pay for Army Corps of Engineers Section 404 Permitting, preliminary designs and land acquisition costs. After ten years of investigation and lengthy Federal permitting, the Lower Lone Pine site was finally authorized by the Corps of Engineers in the Fall of 2010. To date, the CLWSA has expended approximately $766,000 on permitting, engineering, legal and land acquisition fees.

Annual financial reports for the past 3 years are can be found in Appendix F.

Social and Physical Impacts

The project will have positive social impacts as the reservoir will augment flows to North Lone Pine Creek. Physical impacts will include the enlargement of the dam and inundated area of the reservoir. Borrow areas are limited to the area below the inundation area of the reservoir and will have a positive impact by containing the reservoir to a more well defined area. The area upstream of the reservoir will have positive impacts by the construction of wetlands.

Conclusions

Crystal Lakes Water and Sewer Association is an incorporated entity in the State of Colorado with the ability to enter into a contract with the CWCB for the purpose of obtaining a construction fund loan.

The project would augment depletions to North Lone Pine Creek due to well water consumption from residences in the Crystal Lakes Community, as required by the decreed augmentation plan.

The project is technically and financially feasible.

Appendix A

Articles of Incorporation
By-Laws

CRYSTAL LAKES

WATER AND SEWER ASSOCIATION

ARTICLES OF INCORPORATION

OFFICES:

Crystal Lakes Water and Sewer Association
300 Tami Road
Red Feather Lakes, Colorado 80545
Telephone: (970) 881-2250
FAX: (970) 881-2085
Email: crystal-lakes@crystal-lakes.org

ARTICLES OF INCORPORATION

OF

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

THE UNDERSIGNED natural person, being over the age of eighteen (18) years, hereby establishes a corporation under and pursuant to the Colorado Nonprofit Corporation Act and adopts the following Articles of Incorporation..

ARTICLE 1. NAME.

The name of the corporation is: Crystal Lakes Water and Sewer Association.

ARTICLE 2. DURATION.

The Corporation shall have perpetual existence, unless otherwise dissolved pursuant to law.

ARTICLE 3. PURPOSE AND POWERS.

3.1 Purpose. The corporation is organized to transact all lawful business for which corporations may be incorporated pursuant to the Colorado Nonprofit Corporation Act.

3.2 Powers. The corporation shall have and may exercise, in furtherance of its purpose, all the powers and privileges now or hereafter conferred by law upon corporations.

ARTICLE 4. MEMBERSHIP.

Each person or entity having an ownership interest in real property serviced by Crystal Lakes Water and Sewer Association, and paying assessments, shall be a member of the Association. Joint owners of a lot shall collectively have one (1) membership and shall be entitled to one (1) vote for each lot.

ARTICLE 5. REGISTERED OFFICE AND AGENT.

The registered agent of the corporation is Richard G. Rosecrans and the registered office of the corporation is located at 300 Tami Road, Red Feather Lakes, Colorado 80545.

ARTICLE 6. BOARD OF DIRECTORS.

6.1 Minimum Number. The Board of Directors shall consist of not less than three (3) persons. Subject to such limitation, the number of directors shall be fixed by the bylaws.

6.2 Initial Board. The initial board of Directors shall consist of the following persons, who shall serve until the first annual meeting of the members or until their successors shall be elected and qualified:

Name	Address
Raymond J. Williams	9721 West 87th Avenue Arvada, Colorado 80008
Donald St. John	2915 South Clermont Denver, Colorado 80222
Roy Tyler	4025 South Jason Englewood, Colorado 80110
Lyle Farmer	3602 Duff Avenue Cheyenne, Wyoming 82001

ARTICLE 7. INCORPORATOR.

The incorporator is:

Robert W. Brandes, Jr.
110 East Oak Street
Post Office Box 469
Fort Collins, Colorado 80522

ARTICLE 8. MISCELLANEOUS.

8.1 Transactions with Directors and Officers. No contract or other transaction between the corporation and any person, firm, partnership, corporation, trust, joint venture, syndicate or other entity shall be in any way affected or invalidated solely by reason of the fact that any director or officer of the corporation is pecuniarily or otherwise interested in, or is a director, officer, member, employee, fiduciary, agent or member of such other entity, or solely by reason of the fact that any officer or director, individually or through any entity in which such director or officer is any way interested, may be a party to or may be interested in a contract or other transaction with the corporation.

8.2 Amendment. The corporation reserves the right to amend these Articles from time to time in any manner now or hereafter permitted by law.

IN WITNESS WHEREOF, the undersigned, being the incorporator designated in the foregoing Articles of Incorporation, has executed these Articles in duplicate this 26th day of January, 1987.

Incorporator:

(original signed) .
Robert W. Brandes, Jr.

STATE OF COLORADO }
} ss.
County of Larimer }

I, Pamela A. VanDenBerg, a Notary Public, hereby certify that on the 26th day of January, 1987, personally appeared before me, Robert W. Brandes, Jr., who being by me first duly sworn declared and acknowledged that he was the person who signed the foregoing Articles of Incorporation as his free and voluntary act for the uses and purposes therein set forth and that the statements therein contained are true.

Witness my hand and official seal

My commission expires: 4-25-87---

(Pamela A. VanDenBerg)
Notary Public

CRYSTAL LAKES

WATER AND SEWER ASSOCIATION

BYLAWS

OFFICES:

Crystal Lakes Water and Sewer Association
300 Tami Road
Red Feather Lakes, Colorado 80545
Telephone: (970) 881-2250
FAX: (970) 881-2085
Email: crystal-lakes@crystal-lakes.org

BY-LAWS

OF

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

ARTICLE I

Section 1. Name. The name of the Corporation is Crystal Lakes Water and Sewer Association, hereinafter sometimes referred to as the "Corporation."

Section 2. Registered Office and Registered Agent. The address of the registered office of the Corporation is 300 Tami Road, Red Feather Lakes, Colorado 80545. The name of the registered agent at such address is Richard G. Rosecrans.

Section 3. Memberships. Each person or entity having an ownership interest in real property serviced by Crystal Lakes Water and Sewer Association, and paying assessments, shall be a member of the Association. Joint owners of a lot shall collectively have one (1) membership and shall be entitled to one (1) vote for each lot.

Section 4. Seal. The Seal of the Corporation shall be as impressed hereon:

ARTICLE II

Meetings of Shareholders

Section 1. Place of Meetings. Meetings of the shareholders of the Corporation shall be held in such place as determined by the Board of Directors, within the state of Colorado.

Section 2. Annual Meetings. The annual meeting of the shareholders shall be held at such time as determined by the Board of Directors between April 1, of each year and August 31, of each year. It shall not be determined to be an unlawful or illegal meeting if such meeting be held on a legal holiday. Failure to hold an annual meeting of the corporation shall not work a forfeiture or dissolution of the corporate charter.

Section 3. Special Meetings. Special meetings of the shareholders may be called by the President, the Board of Directors, or the holders of not less than 30% of all shares entitled to vote.

Section 4. Notice of Meetings - Waiver. Notice of all meetings of shareholders of the Corporation, both regular and special, shall be given in accordance with the Colorado Corporation Code.

Section 5. Voting at Meetings.

a. Voting Rights. Every shareholder or unit of the Corporation shall be entitled to one vote. Cumulative voting shall not be allowed. Only active, paid-up members shall be entitled to vote at meetings of the Association. Voting may be by voice vote, but twenty (20) members shall have the right to a roll call vote. Memberships in the Association shall be determined as being

one (1) vote for each lot currently being serviced by either water and/or sewer by the facilities of the Association. Ownership of lots in more than one name shall entitle the owners of said lot to only one (1) vote.

b. Quorum. The number constituting a quorum for all membership meetings shall be the number present provided due notice has been given to the membership, (due notice shall mean a notice mailed at least 30 days prior to meeting.)

c. Proxies. Voting by proxy shall be permitted at all Association Annual and Special meetings, subject to the policies established by the Board of Directors. (Amended by Board action March 9, 1991.)

ARTICLE III

Board of Directors

Section 1. Number and Qualifications. The duties and affairs of the Corporation shall be managed by the Board of not less than three (3) nor more than seven (7) Directors who need not be residents of the state of Colorado nor shareholders of the Corporation, nor users thereunder. Until further resolution of the Board of Directors, the Board shall consist of five (5) Directors.

Section 2. Election and Term. Annually the members shall elect directors to hold office for a two year term. The terms shall be staggered. Each director shall hold office for the term for which he is elected and until his successor shall be elected and qualified. (Amended by Board action May 17, 1997.)

Section 3. Vacancies. Any vacancy occurring in the Board of Directors may be filled by the affirmative vote of a majority of the remaining Directors though less than a quorum of the Board of Directors. A Director elected to fill a vacancy shall be elected for the unexpired term of his predecessor in office.

Section 4. Place of Meetings. Meetings of the Board of Directors may be held within or without the state of Colorado at such place as is designated in the notice or waiver of notice thereof.

Section 5. Annual Meetings. The Board of Directors shall meet each year immediately after the annual meeting of shareholders for the purpose of organization, election of officers, and consideration of any other business that may be properly brought before the meeting. No notice of any kind to either old or new members of the Board of Directors for such annual meeting shall be necessary.

Section 6. Other Meetings. Other meetings of the Board of Directors may be held upon notice by letter, telegram, cable, or radiogram delivered or mailed not later than during the third day immediately preceding the date for such meeting, or by word of mouth, telephone, radiophone, received not later than during the second day immediately preceding the day for such meeting, upon the call of the president or secretary of the Corporation, at any place within or without the state of Colorado. Notice of any meeting of the Board of Directors may be waived in writing signed by the person or persons entitled to such notice whether before or after the time of such meeting and shall be equivalent to the giving of such notice. Attendance of a Director at such meeting shall constitute a waiver of notice thereof except where a Director attends a meeting for the express and announced purpose of objecting to the transaction of any business because such meeting is

not lawfully convened. Neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice, or waiver of notice of such meeting.

Section 7. Quorum. A majority of the number of Directors fixed by this code of By-laws shall constitute a quorum for the transaction of business. The act of the majority of the Directors present at such meeting at which a quorum is present shall be the act of the Board of Directors.

Section 8. Removal. Any director may be removed from office either with or without cause, at any time, and another person may be elected to his place to serve for the remainder of his term at any special meeting of shareholders called for this purpose by a majority of all of the shares of stock outstanding and entitled to vote. If the notice calling such meeting so provides, the vacancy caused by such removal may be filled at such meeting by a vote of a majority of the shareholders present and entitled to vote for the election of Directors. In case any vacancies so created shall not be filled by the shareholders at such meeting, such vacancy may be filled by the Directors as hereinbefore provided.

Section 9. Executive Committee. The Board of Directors shall have the authority by resolution adopted by a majority of the whole Board to designate two (2) of their number as an executive committee with all powers permitted by the Colorado Corporation Laws.

ARTICLE IV

Officers

Section 1. Officers. The officers of the Corporation shall consist of a President, Secretary, Treasurer, and as many Vice Presidents and such other officers and assistant officers and agents as may be deemed necessary by the Board of Directors. Any two (2) or more offices may be held by the same person except the offices of President and Secretary. Officers need not be directors of the Corporation.

Section 2. Vacancies. Whenever any vacancies shall occur in any office by death, resignation, increase in the number of offices of the Corporation, or otherwise, the same shall be filled by the Board of Directors, and the officer so elected shall hold office until his successor is chosen and qualified.

Section 3. President. The President shall be the Executive Officer of the Corporation and shall exercise detailed supervision over the business of the Corporation and over its several officers, subject however, to the control of the Board of Directors. The President shall preside at all meetings of shareholders and directors and discharge all the duties which devolve upon a presiding officer. The president shall have full authority to execute proxies in behalf of the Corporation, to vote stock owned by it in any other corporations and to execute, with the Secretary, powers of attorney appointing other corporations, partnerships, or individuals the agent or agents of the Corporation all subject to the provisions of the Corporate Laws of the State of Colorado, then in effect, and the Articles of Incorporation of this Corporation and this Code of By-laws. In general the President shall perform all duties incident to the office of President and such other duties as from time to time may be assigned to him by the Board of Directors.

Section 4. Vice President. Vice Presidents shall perform all duties incumbent upon the President during the absence or disability of the President, and shall perform such other duties as this Code of By-laws may require or the Board of Directors may prescribe.

Section 5. Secretary. The Secretary shall attend all meetings of shareholders and of the Board of Directors and shall keep, or cause to be kept, in a book provided for the purpose a true and complete record of the proceedings of such meetings and shall perform a like duty for all standing committees appointed by the Board of Directors, when required. He/she shall attend to the giving and serving of all notices of the Corporation and shall perform such other duties as this Code of By-laws may require or the Board of Directors may prescribe.

Section 6. Treasurer. The Treasurer shall be the legal custodian of all money, notes, securities and other valuables which may from time to time come into the possession of the Corporation. He/she confers with the accountant and Manager whenever he/she believes it desirable for clarification on expenses, income and investment. He/she makes reports to the Board at monthly and special meetings and at the annual meeting of property owners concerning finances of the Association and performs such other duties as this Code of By-laws may require or the Board of Directors may prescribe.

Section 7. Delegation of Authority. In the case of the absence of any officer of the Corporation or for any other reason that the Board of Directors may deem sufficient the Board of Directors may delegate the powers and duties of such officer to any other officer or to any Director or employee of the Corporation for the time being.

Section 8. Removal. Any officer may be removed by the Board of Directors with or without cause and without prejudice to contract rights, if any. Election or appointment of any officer to office shall not, of itself, create contract rights.

Section 9. Indemnification of Officers. The Board of Directors may indemnify any corporate officer, director, employee or agent for any loss he/she may sustain by virtue of his/her acting in a representative capacity.

ARTICLE V

Committees

Section 1. Nominating Committee. The Nominating Committee shall nominate candidates for the Board of Directors and for the Nominating Committee for the succeeding year. Said Nominating Committee shall consist of three (3) members elected by the Board of Directors. Said Nominating Committee shall submit a list of sufficient number of nominees for the Board of Directors for the new year. Submission shall be at the annual meeting. Nothing herein shall preclude or prohibit nomination to be made from the floor by any person entitled to vote.

Section 2. Rules Committee. The Rules Committee shall be responsible for the preparation of rules of safety, health, and conduct in connection with the operation of the Association facilities and shall see that the rules and regulations of the Association are enforced.

ARTICLE VI

Miscellaneous

Section 1. Indemnification of Officers. Each person who acts as a director or officer of the Association, or any agent of the Association given privileges by the Board of Directors, shall be indemnified by the Corporation against the expenses actually and necessarily incurred by him/her in connection with the defense of any action, suit or proceeding in which he/she has been made a party by reason of his/her being or having been a director or officer of the Corporation, except in relation to matters as to which he/she shall be adjudged in such action, suit or proceeding to be liable for gross negligence or willful misconduct, and accept any sum paid for the Association in settlement of an action, suit or proceeding based upon the gross negligence or willful misconduct in the performance of his/her duties. The right of indemnification provided herein shall insure to each director and officer, or the person referred to herein whether or not he/she is a director or officer at the time, the cost or expenses are imposed or incurred and in the event of his/her death shall extend to his/her legal representatives.

Section 2. Interpretation. Any question as to the meaning or proper interpretation of any provision of the By-laws shall be determined by the Board.

Section 3. Amendments. These Bylaws may be amended by two-thirds (2/3) vote of the members present and voting at any meeting of the Association providing at least five (5) days notice of such proposed amendment or amendments shall be given to each membership or sent by regular mail to the address provided by the Association by each membership. These Bylaws may also be amended by two-thirds (2/3) vote of the total membership of the Board of Directors.

ARTICLE VII

Notice

All notices provided by the statutes of the State of Colorado and/or these By-laws may be given to such address as is provided to the Association by each stockholder. It shall be the responsibility of the stockholder to provide the Association with his/her current address. Any notice sent by regular mail to said membership shall be deemed made when deposited in the United States mail, postage prepaid. No notice shall be required to be sent by certified or registered mail.

The members of the Board of Directors of Crystal Lakes Water and Sewer Association adopt and ratify the above Code of By-laws this 1st day of May, 1997.

Attest as a True Copy this 1st day of May, 1997.

(original signed)
Barbara J. Rosenbrock, Secretary

Appendix B

Water Rights
Storage Table

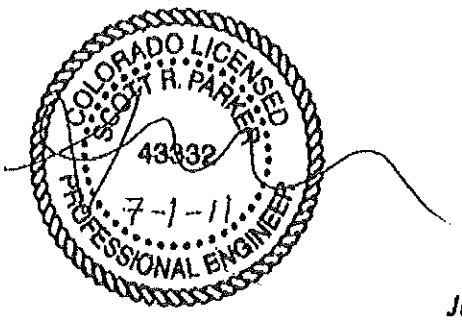
ENGINEERING REPORT
IN SUPPORT OF
CRYSTAL LAKES CASE NO. 09CW185

Prepared for:

Crystal Lakes Water and Sewer Association
300 Tami Road
Red Feather Lakes, CO 80545

Prepared by:

Anderson Consulting Engineers, Inc.
375 E. Horsetooth Road, Bldg. 5, Suite 100
Fort Collins, CO 80525
(ACE Project No. COCLWSA03)



July 1, 2011

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1.0 BACKGROUND

The Crystal Lakes Water and Sewer Association (CLWSA) is pursuing the enlargement of Lower Lone Pine Lake in the North Lone Pine Creek basin to utilize it as an alternate place of storage for conditional water rights associated with Upper Lone Pine Lake, which has not yet been constructed. Water stored under the Upper Lone Pine Lake rights will be used to augment depletions to North Lone Pine Creek due to well water consumption from residences in the Crystal Lakes Community, as required by the decreed augmentation plan (Division 1 Water Court Case Nos. W-7631-74 and W-8540-77). The augmentation decree is included in Appendix A. The CLWSA filed an application for change of water rights on December 28, 2009 (Case No. 09CW185). No change in use of the Upper Lone Pine Lake rights has been requested, only an alternate place of storage. The application is included in Appendix B.

The project area is shown in Figure 1.1. Lower Lone Pine Lake is located in the Southeast quarter Section 7, Township 10 North, Range 73 West of the 6th P.M., Larimer County (physical and decreed). The decreed location for Upper Lone Pine Lake is in the Southeast quarter of the Northeast quarter Section 23, Township 10 North, Range 74 West of the 6th P.M., Larimer County.

Lower Lone Pine Lake is an on-channel reservoir on North Lone Pine Creek with a current capacity of 10.5 acre-feet that is filled under an absolute water right. At the request of the CLWSA, States West Water Resources Corporation (SWWRC) has designed a 90 acre-foot enlargement to Lower Lone Pine Lake which will bring the total storage to 100.5 acre-feet. Table 1.1 contains information on Lower Lone Pine Lake in both its existing state and the proposed enlargement.

Table 1.1 Properties of Lower Lone Pine Lake at Normal High Water Line Existing and Enlarged.

	Existing (approx.)	Enlarged
NHWL Elevation	7969 FT	7986 FT
Volume	10.5 AF	100.5 AF
Area	2.5 Acres	7 Acres
Dam Height	27 FT	44 FT

The existing footprint of Lower Lone Pine Lake covers 600 feet along the length of North Lone Pine Creek from the normal high water line to the downstream extent of the outlet. The enlargement will cover an additional 900 feet when full, bringing the total footprint to 1,500 feet along the creek. The bulk of the land for the dam, reservoir and other facilities is already owned by the CLWSA. Negotiations with landowners for the remaining small parcels needed

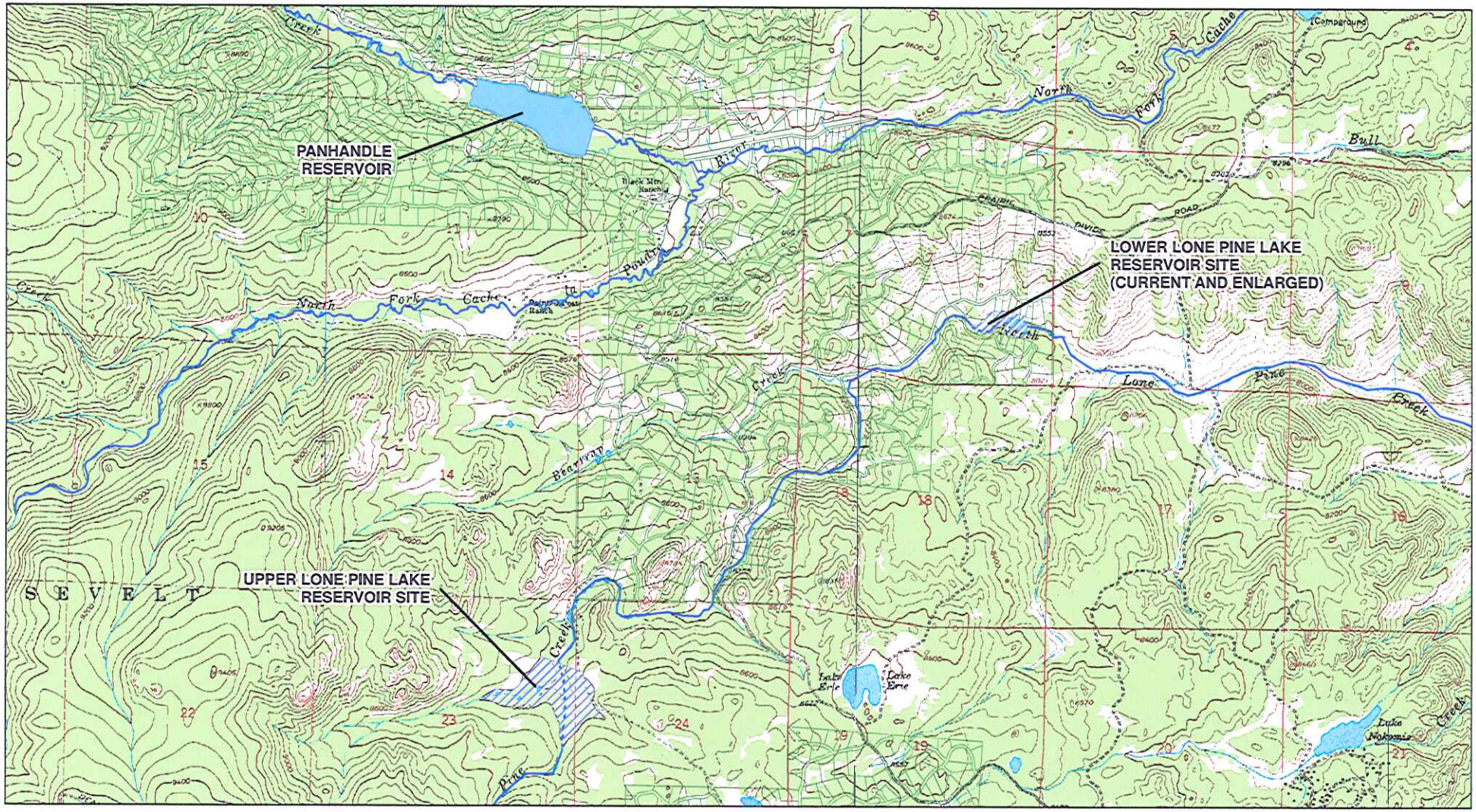

FIGURE 1.1
CLWSA RESERVIOR LOCATION MAP

are under way. The CLWSA has authority to acquire the needed parcels through the power of eminent domain if necessary.

SWWRC contracted with Anderson Consulting Engineers, Inc. (ACE) in 2004 to develop a hydrologic model of the North Lone Pine Creek basin that would take into account the affects of basin hydrology and water rights on the operation of a new reservoir in the basin. The model supported SWWRC's analysis of various water storage alternatives in the basin for CLWSA. CLWSA contracted directly with ACE in 2008 to provide engineering support services in complying with the terms of their augmentation plan. ACE's primary task was to bring the 2004 model up-to-date with respect to hydrologic, diversion and reservoir operations data. The updated model has since been utilized to evaluate many aspects of the Lower Lone Pine Lake enlargement including feasibility and environmental considerations.

This report summarizes the research and modeling efforts undertaken by ACE in support of CLWSA.

2.0 PURPOSE AND NEED FOR ENLARGEMENT OF LOWER LONE PINE LAKE

CLWSA needs to provide storage for augmentation water in the Lone Pine basin for two reasons. First, the augmentation plan specifically links the allowable use of water to the amount of augmentation water in storage. Second, in the event of a call by a senior water right within the Lone Pine basin, there is not sufficient storage within that basin to satisfy the local call and avoid curtailment of well usage by Crystal Lakes residents. The CLWSA has determined that enlargement of Lower Lone Pine Lake is the most cost effective and expedient way to provide the necessary augmentation storage in the Lone Pine basin.

The augmentation plan for the Crystal Lakes Community is spelled out in the augmentation decree provided in Appendix A. The decree specifically mentions three reservoirs that will be used to make augmentation replacements: Crystal Lake, Upper Lone Pine Lake and Lower Lone Pine Lake. Crystal Lake is on the Panhandle Creek and is implicitly tied to depletions occurring in the Panhandle and North Poudre basins. Upper Lone Pine Lake was to be constructed on North Lone Pine Creek and is implicitly tied to depletions in that basin. Lower Lone Pine Lake is mentioned in the decree as a source supplemental to Upper Lone Pine Lake in the Lone Pine basin. Crystal Lake and Upper Lone Pine Lake are the primary decreed storage places for augmentation water. Two tables on Page 23 of the augmentation decree tie the allowable water use for wells in each basin to the gage reading in the appropriate reservoir. Under strict administration, well use would be rationed when storage drops below critical levels. Rationing would be done on the basis of gallons per day per residential equivalent unit (REU). The referenced table for Upper Lone Pine Lake is based on estimated stage-storage curves for the reservoir as planned contemporaneous with the augmentation decree. Table 2.1

is an updated version of the rationing table based on estimated stage-storage curves for the Lower Lone Pine Lake enlargement, with the addition of allowable water use based on current (2009) build-out in the basin. SWWRC has produced a elevation-capacity table for the proposed enlargement, which is included in Appendix C.

Full development, or build-out, in the Lone Pine basin is stated in the decree to be 566 residential equivalent units (REU). Current (2009) build-out in the basin is 243 REU, or 43% of full build-out. Based on the analysis of meter records, which is covered in detail in Section 4.2, the current use in gallons per day per REU is 158. From Table 2.1, we can see that at full build-out this usage could be maintained as long as storage in the reservoir exceeds around 45 acre-feet or a gage reading of 21.6 feet. At current build-out the storage requirements would only be 20.4 acre-feet or a gage reading of 16.2 feet.

Table 2.1 Allowable Water Use in Lone Pine Basin Based on Storage in Enlarged Lower Lone Pine Lake.

Gage Reading, Feet	Res. Contents, Acre Feet	Allowable Water Use at Full Development; g.p.d. per Dwelling	Allowable Water Use at Current Buildout; g.p.d. per Dwelling
29	100.50	390	908
28	82.50	302	703
25	62.97	227	529
22	47.38	168	391
20	35.00	121	282
18	25.04	85	198
15	17.42	57	133
12	11.50	36	84
8	7.16	21	49

The augmentation decree does not rule out that releases could be made from either Crystal Lake or Upper Lone Pine Lake to satisfy calls on the Cache La Poudre or on the Main Stem of the South Platte. On this basis, releases from Crystal Lake have facilitated the operation of the CLWSA augmentation plan in both basins up to the present time. Only Upper Lone Pine Lake or Lower Lone Pine Lake could satisfy calls within the Lone Pine basin. Lower Lone Pine Lake is quite small, 10.5 acre-feet total. Calls on Lone Pine Creek have, up to the present time, been a rare event. George Varra, the Water Commissioner for the Poudre, is only aware of one time that a Lone Pine basin water right has made a call on North Lone Pine Creek, that was in 2002. Depending on how senior rights in the Lone Pine basin are used in the future, calls could become more frequent. Should calls become commonplace, with insufficient storage in the basin, the result would be frequent curtailment of the use of wells for Crystal Lakes residents.

3.0 LONE PINE BASIN HYDROLOGY

North Lone Pine Creek begins at North Bald Mountain and flows north-northeast roughly six miles where it makes a right turn and flows east-southeast to its confluence with South Lone Pine Creek. Below the confluence it is called Lone Pine Creek and continues to flow east-southeast until just before it joins the North Fork of the Cache La Poudre (Poudre) River. The North Fork of the Poudre River is tributary to the Poudre River, which is tributary to the *South Platte River. Figure 3.1 shows the Lone Pine Creek basin.*

ACE was unable to locate gaging stations maintained by any agency on North Lone Pine Creek or any part of the Lone Pine Creek basin. This finding is confirmed by an earlier report by Resource Consultants & Engineers, Inc. (RCE) completed in 1993. The nearest gaging sites within the greater Poudre basin are on the North Fork of the Poudre River. The first site, located below Milton Seaman Reservoir and above the Poudre River confluence, was operated by the USGS from May 1929 to September 1965 under gage number 06751500 and has been tracked by Colorado Division of Water Resources (CDWR) since January 2004. The second site, located at Livermore, has been operated by the USGS since October 1986 under gage number 06751490. Streamflow at both gages is affected by reservoir operations of Worster, Halligan, and Milton Seaman Reservoirs, diversions by the North Poudre Irrigation Company, transbasin diversions, and diversions by various small ditches and reservoirs. Both gages are located greater than 20 miles downstream from Lower Lone Pine Lake. The two stations could not be used to estimate historic streamflow in North Lone Pine Creek because of the complications introduced by the ongoing operations affecting gage records and the considerable distance between the gages and the project basin.

Since there are no recorded gages in the project basin, a statistical regression method of estimating streamflow in the Lone Pine Creek basin was utilized. The 1993 RCE report used USGS gage records for the nearby Sand Creek basin to estimate streamflows in the North Lone Pine Creek basin using a similar regression analysis. Following a review of the characteristics of gaged watersheds in the immediate vicinity of Crystal Lakes, ACE also determined that Sand Creek was the most suitable basin to use in this type of analysis. The benefits of Sand Creek as a basis for the regression analysis are twofold: first, Sand Creek has continuous USGS gage records over the simulation period; and, second, the basin has a similar aspect (directional orientation) to the North Lone Pine Creek basin above the decreed location of Upper Lone Pine Lake. Based on this assessment the model presented in this report follows a similar methodology to that used by RCE. The Sand Creek basin extends from Deadman Road to the Colorado-Wyoming border on a generally north-northeast bearing. USGS gage number 06659580 is located at the border and has been operated continuously by the USGS since October 1968. Daily streamflow records for the Sand Creek gage were obtained

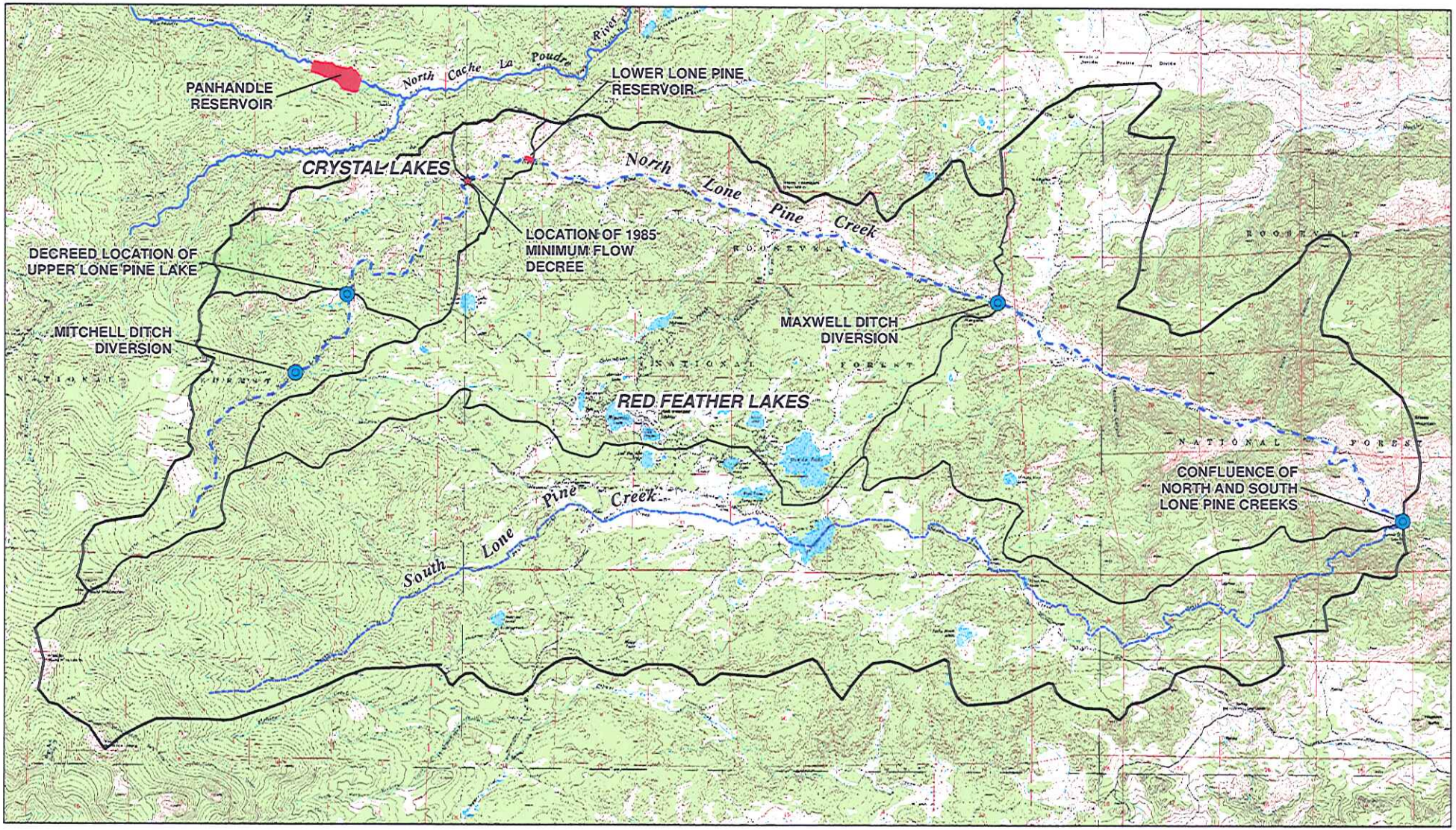

FIGURE 3.1
MAP OF THE LONE PINE BASIN

from the USGS online for the period October 1968 through October 2008. The Sand Creek flow records were impacted by the operation of the Deadman Ditch, which imports water to the basin, and the Wilson Ditch, which exports water from the basin. A review of maps and diversion records indicated that in-basin water use on Sand Creek has an insignificant impact on gage records. Monthly diversion records from October 1968 to September 2003 for both ditches were obtained from the Division 1 office of the Office of the State Engineer (SEO) and adjusted to match the daily period of record for the Sand Creek gage. Daily records for both ditches from October 2003 to July 2007 were obtained from the Colorado's Decision Support System (CDSS) website maintained by the CDWR and the Colorado Water Conservation Board (CWCB). A virgin flow record for Sand Creek was computed by subtracting the imports from, and adding the exports to, the gage records. Figure 3.2 shows the relative sizes and locations of the Sand Creek and Lone Pine Creek basins.

Using digitized USGS topographical maps the basin boundaries for the Sand Creek, North and South Lone Pine Creeks and several sub-basins on North Lone Pine Creek (Maxwell Ditch diversion, decreed minimum flow location, Lower Lone Pine Lake dam and the decreed Upper Lone Pine Lake dam) were delineated using Geographic Information System (GIS) software and basin areas were computed. Basin areas were utilized in the model to estimate virgin flow at the outlet of the Lone Pine Sub-basins by multiplying the Sand Creek gage records by the ratio of the sub-basin area to the area of the Sand Creek basin above the gage. Of particular interest is the virgin flow at the decreed location of Upper Lone Pine Lake, because the diversions into an enlarged Lower Lone Pine Lake under Upper Lone Pine Lake decrees would be limited to the available flow at the decreed location. Based on the observations that the Sand Creek basin and the North Lone Pine Creek basin above Upper Lone Pine Lake are similar in aspect, the virgin flows at the decreed Upper Lone Pine Lake site on North Lone Pine Creek are estimated as 10.1% of the Sand Creek virgin flows; this is a simple ratio of areas. Table 3.1 lists the areas of the delineated basins.

Table 3.1 Areas of Sand Creek Basin to State Line and Lone Pine Creek Sub-Basins.

Sub-Basin Name	Area (mi^2)
Sand Creek Above State Line	31.8
North Lone Pine Creek Above Confluence	35.9
South Lone Pine Creek Above Confluence	26.0
North Lone Pine Creek Above Maxwell Ditch	20.5
North Lone Pine Creek Above Decreed Minimum Flow Location	6.6
North Lone Pine Creek Above Decreed Upper Lone Pine Lake	3.2
North Lone Pine Creek Above Mitchell Ditch	2.2
North Lone Pine Creek Above Lower Lone Pine Lake Dam	7.1

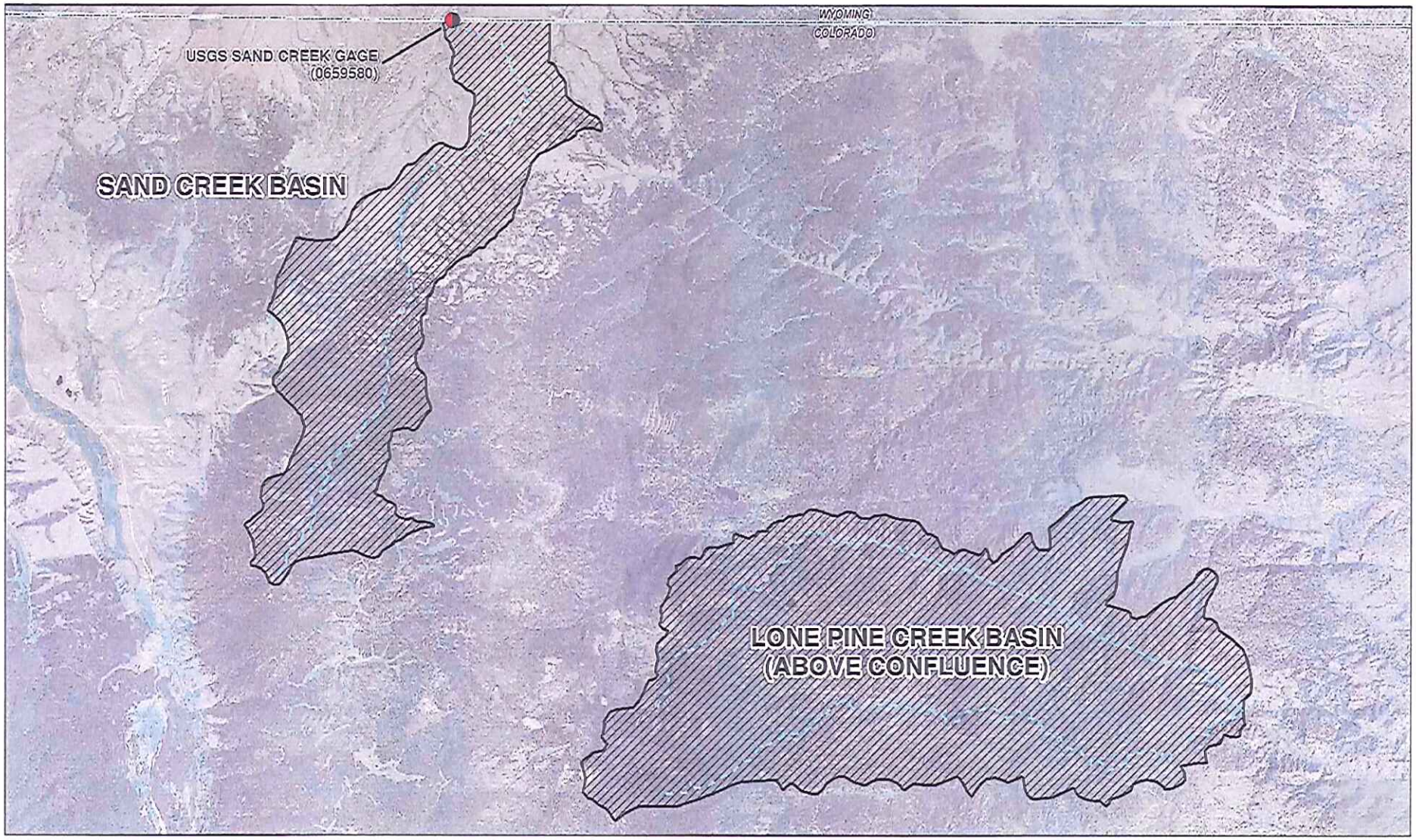

FIGURE 3.2
SAND CREEK AND LONE PINE CREEK BASINS

4.0 LONE PINE BASIN WATER RIGHTS

Junior water rights' diversions to storage from North Lone Pine Creek basin will be greatly affected by calls placed on the basin by senior downstream water rights. CLWSA owns conditional storage rights for Upper Lone Pine Lake, which have dates of July 26, 1973 (93.73 acre-feet), June 30, 1975 (25.48 acre-feet), and October 14, 1989 (151.79 acre-feet). The Upper Lone Pine Lake rights total to 271 acre-feet. CLWSA also holds an absolute right for Lower Lone Pine Lake which has a date of December 12, 1968 (10.5 acre-feet). All of the CLWSA's rights, which total to 281.5 acre-feet, are junior in the Cache La Poudre and greater South Platte basins. Decrees for all four of the storage rights described above are included in Appendix D. Due to the high position of the North Lone Pine Creek in the South Platte basin, downstream senior rights will frequently call out the Upper Lone Pine Lake rights. ACE collected data from the SEO and other agencies necessary to determine when calls in the South Platte, Poudre, and Lone Pine basins will prevent the Upper Lone Pine Lake rights from diverting.

Daily call records for the main stem of the South Platte River were obtained from the Northern Colorado Water Conservancy District (Northern Water). Northern Water compiled the daily call records from call tabulations prepared by the Division 1 SEO from November 1, 1969 through September 30, 2001. The Northern Water call record only indicated whether a call existed on a given day and not the priority date or precise location of the call. ACE obtained main stem daily call records for the period October 1, 2001 through January 29, 2009 from the CDSS website.

The Division 1 SEO was unable to provide a historic call record (prior to 2001) within Water District 3 (Poudre River). Based on research into call records and consultation with George Varra, the Poudre River Water Commissioner (Water Commissioner), it has been determined that there are a great number of senior water rights on the main stem of the South Platte that call out junior rights in the Poudre basin, such as the Upper Lone Pine Lake rights, prior to senior rights within the Poudre basin placing calls. This condition is usually present during the spring and summer, which is the period of interest in this study. Consequently, for the purposes of this study, flow availability within the North Lone Pine Creek basin can be reliably modeled using the call record from the main stem of the South Platte.

Based on a review of the RCE report, Division 1 Water Rights Tabulations, and consultation with the Water Commissioner, ACE compiled a list of active water rights within the Lone Pine Creek basin senior to the Upper Lone Pine Lake decrees. This list is presented in Appendix E. Of particular interest in the Lone Pine Creek basin are senior water rights used to irrigate hay meadows on large historic ranches. These historic ranch water rights include the Hansen-Johnson Ranch and Maxwell Ranch rights. The Burnham Emerson Ditch, Mitchell Weymouth Ditch, and the Wetzler Weymouth Mitchell Ditch deliver water from Lone Pine Creek to the Hansen-Johnson Ranches. These ditches divert below the confluence of North and

South Lone Pine Creeks and hence their diversions include contributions from both watersheds. The four Maxwell Ditches supply water to the Maxwell Ranch from North Lone Pine Creek. According to the Water Commissioner only one of the Maxwell Ditches is still active. The Maxwell Ranch is located approximately 3.5 miles above the confluence of North and South Lone Pine Creeks. Lone Pine basin water rights of interest are shown in Table 4.1

Table 4.1 Decree Information for Hansen-Johnson and Maxwell Water Rights.

Name of Ditch	Decreed Amount (cfs)	Priority Date
Burnham Emerson	26.00	April 1, 1871
Mitchell Weymouth (first)	16.27	January 19, 1880
Mitchell Weymouth (second)	19.00	September 1, 1884
Wetzler Weymouth Mitchell (first)	10.37	March 22, 1875
Wetzler Weymouth Mitchell (second)	3.00	March 1, 1877
Maxwell Ditch 1-4	9.00 (total)	June 20, 1891

Another senior water right in the North Lone Pine Creek basin belongs to the Red Feather Storage and Irrigation Company (RFSIC) with relation to the Mitchell Lakes. The five Mitchell Lakes hold combined decrees totaling to 687.00 acre-feet of storage. The largest and most senior of these storage rights is Mitchell #1 (Hiawatha) with a storage decree totaling 450.00 acre-feet and an October 31, 1888 priority date. Mitchell #4 (Apache) has the least senior right of the lakes with a decree totaling 109.10 acre-feet dated August 31, 1968. The Mitchell Ditch, which diverts from North Lone Pine Creek roughly 1.5 miles upstream from the decreed location of Upper Lone Pine Lake, supplies water from the creek to Mitchell Lakes. The RCE report indicates that the Mitchell Ditch also diverts water from North Lone Pine Creek for Campbell Development, Inc. (CDI). Based on a conversation with the Water Commissioner it is our understanding that CDI does not receive any water through the Mitchell Ditch, but rather pumps water from the South Lone Pine Creek.

In addition to the water rights already discussed there is an adjudicated minimum flow requirement on North Lone Pine Creek (Case No. 85CW421 filed by the Colorado Water Conservation Board). The decreed minimum flow is 1.5 cfs to be maintained at the NW ¼ of the NW ¼ of Section 18, Township 10 N, Range 73 W. The priority date of the minimum flow requirement is November 11, 1985. It should be noted that this priority date is junior to the Lower Lone Pine Lake right, the first two Upper Lone Pine Lake rights and senior to the third Upper Lone Pine Lake right.

5.0 LOWER LONE PINE LAKE MODELING

5.1 Model Development

Considering the water demands in the basin, and using the estimated virgin flow record for North Lone Pine Creek, an operational model based on the simulation period of 1970 through 2007 was constructed to determine the suitability of the Lower Lone Pine Lake and Upper Lone Pine Lake rights in meeting the demands identified in the augmentation plan. ACE originally developed the model in 2004 and updated it in 2009 to include the most recent weather and diversion data available at the time. The daily model computations were limited to 122 days of the "early season", April through July, which encompasses the bulk of runoff from snowmelt in a given year. Winter diversions were precluded because of low base flows and uncertainty over the amount available for storage in winter, pending the outcome of the Upper Lone Pine Lake water rights change. Late summer diversions were precluded because flows in North Lone Pine Creek historically drop to base flow levels by mid-July and the Upper Lone Pine Lake right would nearly always be called out that late in the irrigation season. The assumptions concerning late summer and wintertime diversions are considered conservative since the storage rights should legally be able to store whenever they are in priority and water is available. The model was constructed in Microsoft Excel utilizing one worksheet per year with multiple columns outlining daily calculations of estimated flow, diversions, and reservoir storage. In addition to the water rights constraints on diversions, the model takes into account the operational constraints on a simulated reservoir delivering water to meet the demands of the CLWSA augmentation plan. This section of the report describes the assumptions and operational constraints of the model.

5.1.1 Available Flow Modeling

Initially, the model computes virgin flow in Sand Creek at the state line as discussed in the Basin Hydrology section. A simple regression based on percentages of the Sand Creek basin area is used to compute virgin flow at the confluence of North and South Lone Pine Creeks (where the Hansen-Johnson water rights divert), at the Maxwell diversion, at Lower Lone Pine Lake, and at the decreed location of the Upper Lone Pine Lake rights (refer to Table 3.1). The virgin flow at the diversion for the Mitchell Ditch was established as 70% of the virgin flow at the decreed Upper Lone Pine Lake location. The term used to describe the ratios of basin area within the model is the "Basin Area Factor". The Basin Area Factors are input variables to the model and may be easily adjusted.

The greatest limitations to diversions on North Lone Pine Creek are due to the downstream senior water rights on historic ranches. To insure that diversions for the CLWSA augmentation plan would not cause a shortfall for either the Hansen-Johnson or Maxwell rights the model was designed to maintain a minimum flow at the decreed Upper Lone Pine Lake location that was based on actual or estimated historic diversions of these rights. The minimum flow was computed by determining from basin area the contribution of the basin above the decreed Upper Lone Pine Lake location to the diversion at the historic ranch rights diversion locations. Junior diversions by the Mitchell Ditch and the available flow at the Upper Lone Pine Lake location are limited to maintain this minimum flow.

Monthly diversion records for the three ditches contributing to the Hansen-Johnson rights were available online from the CDSS website for the period 1977 through 2007. Monthly records for the years 1970 through 1976 were estimated using the averages for each month over the known period. Each model worksheet (representing a single year) requires the input of the April through July diversion totals and computes daily values assuming a uniform daily diversion each month. For the purpose of the model input the diversions of the three ditches are added together. Diversion records for the Hansen-Johnson ditches are included in Appendix F.

No diversion records are available from the SEO for the Maxwell Ditches. As noted previously the sum of the decreed water rights for the four Maxwell Ditches is 9 cfs. Based on conversations with the Water Commissioner it is our understanding that only one of these ditches is currently active and that this ditch does not appear to be capable of diverting the full decreed amount. Additionally, the Water Commissioner is aware of only one time, in 2002, when these rights have made a call on North Lone Pine Creek. In light of these facts ACE assumed that the Maxwell rights divert only 3 cfs for the April through July time period each year.

Diversions by the Mitchell Ditch also limit the amount of available flow to the Upper Lone Pine Lake rights. Monthly records for RFSIC diversions through the Mitchell Ditch were available from the SEO for the period 1986 through 2006. Monthly records for the years 1970 through 1985 and 2007 were estimated using the averages for each month over the known period. It is assumed in the construction of the model that the RFSIC will divert all physically and legally available flow at the Mitchell Ditch diversion up to the historic diversion total for a given year. Consequently, the model requires as input the annual total of the historic Mitchell Ditch diversions. Additional constraints on the RFSIC diversions are that the Mitchell Ditch will not divert when the flow in North Lone Pine Creek is 1 cfs or less at the diversion point, and will divert a maximum of 7 cfs. These constraints are similar to those considered in the RCE report and are related to the physical limitations of the Mitchell Ditch and the diversion structure.

The model includes the capability to simulate the affects of an additional entity diverting water through the Mitchell Ditch. This capability was designed into the model structure to handle possible diversion by CDI, although it has not been used in the current modeling effort.

The results of the above described computations in combination with the downstream call record described in the Water Rights section are used to estimate available flow at the decreed Upper Lone Pine Lake location as follows:

1. The net flow at the Upper Lone Pine Lake location is calculated as the virgin flow minus the Mitchell Ditch diversion.
2. The call record is checked to see whether or not a downstream call is on for the current day.

    - If a call is on, the model indicates zero available flow.

    - If no call is on and the net flow is less than or equal to the minimum flow, the model indicates zero available flow.

    - If no call is on and the net flow is greater than the minimum flow, the difference is available for diversion and is input to the reservoir calculations.

Within the model structure the available flow is termed the "Potential Diversion". The rate of diversion of the available flow has an upper limit that may be specified within the model. This limit is variable and can be adjusted to reflect the capacity of a proposed diversion structure, but in the case of an on-channel reservoir can be set to a very high value as no diversion structure is necessary.

5.1.2 Reservoir Operations Modeling

The model includes simple reservoir operations computations that are used to balance the demands placed by the CLWSA augmentation plan against the supply provided by the Lower Lone Pine Lake and Upper Lone Pine Lake rights from North Lone Pine Creek. The reservoir model includes seepage loss, evaporation loss and cumulative storage calculations, as well as a simple protocol to determine when demands are met.

A number of conditions are placed on the diversions into the reservoir. The Lower Lone Pine Lake right allows the diversion of up to 10.5 acre-feet per year (1968). A total of 119.21 acre-feet can be diverted under the first two decrees for the Upper Lone Pine Lake (1973 and 1975), and an additional 151.79 acre-feet can be diverted under the third decree (1989). The

maximum amount that can be diverted is 281.5 acre-feet in a given year. In addition to the diversion constraints resulting from downstream historic ranch water rights and river calls the third decree for the Upper Lone Pine Lake is also limited by the minimum flow decree (1985) on North Lone Pine Creek. Water cannot be diverted under the third decree unless the minimum flow is met. Consequently, feasibility analysis focused on the first two Upper Lone Pine Lake rights, which are considered more reliable sources of augmentation water. Another constraint on the reservoir diversions is the capacity of the enlarged reservoir itself. The reservoir capacity (total storage) is included as a variable in the model and can be changed, but was set at 100.5 acre-feet for modeling enlarged Lower Lone Pine Lake. This capacity reflects an existing capacity of 10.5 acre-feet plus an enlargement of 90 acre-feet.

Included in the operational model of the reservoir are storage losses incurred as part of normal reservoir operation. Seepage (losses to groundwater) out of the reservoir was estimated as 1% of the end-of-month storage in the reservoir. Evaporation calculations are more complex. Gross evaporation from the reservoir was estimated from the Shallow Lake Free Water Surface Evaporation Map included in NOAA Technical Report NWS 33, June 1982. The gross evaporation from a shallow lake in the Red Feather Lakes area is 35 inches per year. The gross annual evaporation was distributed monthly according to the percentages recommended by the SEO. Daily precipitation data for the Red Feather area was obtained online through the High Plains Regional Climate Center for the NWS affiliated weather stations Red Feather Lakes 1SW and 2. The average total precipitation, 1970 through 2007, was 15.4 inches per year. A table of monthly average precipitation data for the Red Feather Lakes area is included in Appendix G. Effective precipitation was computed as 70% of the total precipitation, or 10.8 inches per year. The net evaporation is the monthly gross evaporation minus the monthly effective precipitation, or 24.2 inches per year. The total monthly evaporation from the reservoir is calculated as the product of the net evaporation and the surface area of the reservoir with the result in acre-feet. The model utilizes a simple linear equation to compute the area of the reservoir each day based on the storage the previous day and the approximate maximum surface area. Enlarged Lower Lone Pine Lake will have maximum surface area of 7 acres; the resultant annual maximum evaporation will be 14.1 acre-feet.

Demands on the reservoir are an input to the model. Demands include all releases that must be made to meet legal obligations. All water not stored under the priority of the Upper Lone Pine Lake and Lower Lone Pine Lake water rights must be released from the proposed reservoir. For instance, to fully pass inflow when the structure is not in priority water will be released from storage to make up for evaporation losses. Additionally, releases must be made from the proposed reservoir based on replacements to North Lone Pine Creek required by the augmentation plan. The decree for the augmentation plan sets the replacement amount at full build-out of the Crystal Lakes development as 23.18 acre-feet per year (decreed demand). The

maximum uniform daily release rate for the reservoir, based on decreed replacements, will be 0.063507 acre-feet per day (0.03202 cfs).

The decree sets forth a method by which augmentation demands can be computed based on metered well use and incremental build-out. The CLWSA has nearly complete well meter records dating back to 2005. Meter readings are currently reported annually. The most complete and reliable year of records available at the time of analysis was 2008, with 83% of units reporting. These records were utilized to compute the consumptive use rate as outlined in the decree. First, the "per unit per day rate of diversion" was computed by summing the metered use for all reporting meters (10,635,228 gallons) and dividing that number by the number of units reporting (184 units) and the number of days in the reporting period (365), which yields 158 gallons per unit per day. Second, the "10% consumptive use rate" specified in the decree was computed by dividing the "per unit per day rate of diversion" by 10 resulting in a consumptive use rate of 15.8 gallons per unit per day, or 0.0000486 acre-feet per unit per day. The consumptive use rate represents the amount consumed daily by the average unit in the Lone Pine drainage. The "10% consumptive use rate" was utilized to compute release rates based on metered usage with full build-out and metered usage with current build-out. Full build-out is defined by the decree as 566 residences ready for occupancy. A total of 243 residences ready for occupancy had been built as of 2009, which is termed "current build-out" in this analysis. Assuming full build-out, and a per-unit consumptive use rate on par with 2008, the replacement amount is reduced to 14.35 acre-feet per year (metered demand). The resulting release rate is 0.0198 cfs. The annual replacement amount can be reduced to 8.82 acre-feet per year based on current build-out and metered demand. The release rate would be 0.0119 cfs. Appendix H contains tables detailing the computation of the release rates based on the decreed formula.

Using the daily inflows, losses and demands the model computes and records the end of day storage in the reservoir for each day in the April through July period each year. The model only keeps explicit track of reservoir operations four months a year. Operations that occur from August to March must be provided as input to the model. The model worksheets are linked to automatically carryover the end-of-season storage from the previous year. Off-season reservoir demands and evaporation losses are computed independently and entered manually. The off-season seepage losses are computed as the sum of 1% of the end-of month storage for each month in the off-season. Beginning-of-season storage in the reservoir is computed by subtracting the off-season demands and losses from the end-of-season storage from the previous year. Each year the cumulative storage calculations begin with the carryover storage from the previous year and then track storage changes occurring within the current year.

Carryover storage also bears on the amount that can be diverted to Upper Lone Pine Lake conditional rights. To account for this, the model subtracts the carryover storage from the

"decreed diversion volume" for the combined Upper Lone Pine Lake rights to compute the "allowable diversion volume" for the year.

5.2 Modeling Results

ACE evaluated three operational scenarios of interest to the CLWSA to help them assess the feasibility of enlarging Lower Lone Pine Lake to meet the requirements of the augmentation plan. The purpose of the modeling exercise was to determine if a reservoir of the planned size, 100.5 acre-feet, filled under Lower Lone Pine Lake and Upper Lone Pine Lake water rights, will be able to store enough water on a sufficiently consistent basis to be useful for meeting the demands of the augmentation plan from year to year. In each scenario the hydrologic and water rights constraints on North Lone Pine Creek were held constant as described in this report. The demand on the reservoir was varied to reflect full build-out and decreed demand, full build-out and metered demand, and current build-out and metered demand.

Figure 5.1 is a storage chart showing storage in enlarged Lower Lone Pine Lake over the simulation period of 1970 to 2007. Releases from the reservoir reflect full build-out in the Lone Pine basin and the decreed demand for replacements. Storage typically varies around 40 acre-feet annually. Diversions exceed 100 acre-feet in only 2 years out of 38. The reservoir fills 19 years out of 38. The reservoir empties or is empty 5 years out of 38.

Figure 5.2 is a similar chart showing storage in enlarged Lower Lone Pine Lake over the simulation period of 1970 to 2007. Releases from the reservoir reflect full build-out in the Lone Pine basin and metered demand for replacements. Storage typically varies just over 35 acre-feet annually. Diversions exceed 100 acre-feet in only 2 years out of 38. The reservoir fills 21 years out of 38. The reservoir empties or is empty 3 years out of 38.

Figure 5.3 also reflects storage in enlarged Lower Lone Pine Lake over the simulation period of 1970 to 2007. Releases from the reservoir reflect current (2009) build-out in the Lone Pine basin and metered demand for replacements. Storage typically varies less than 30 acre-feet annually. Diversions exceed 100 acre-feet in only 2 years out of 38. The reservoir fills 26 years out of 38. The reservoir empties or is empty 2 years out of 38.

Analysis of the storage charts presented in Figures 5.1 through 5.3 forms the basis of ACE's conclusion that there is sufficient water physically available, in priority, to make the enlargement of Lower Lone Pine Lake economically viable and advantageous to the CLWSA. Despite junior status within the Lone Pine Creek basin, Cache La Poudre basin and the larger South Platte basin enough water is available to maintain a pool in the reservoir 33 out of 38 years under highest replacement demands (decreed demands). Storage levels increase as replacements are decreased to reflect metered use. Storage levels further increase when the actual number of residences is taken into account. In both Figures 5.2 and 5.3 the reservoir

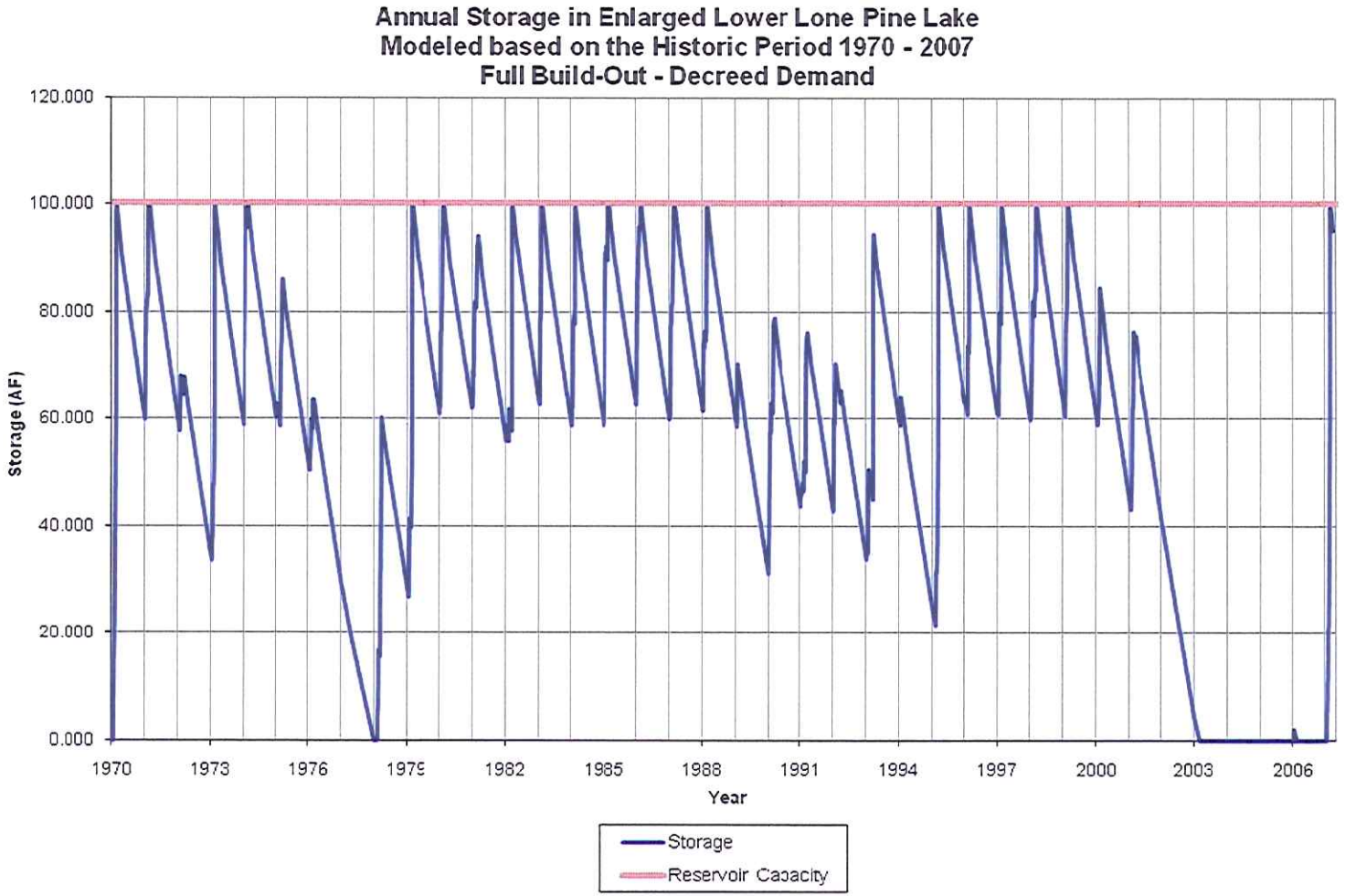

Figure 5.1 Full Build-Out Decreed Demand

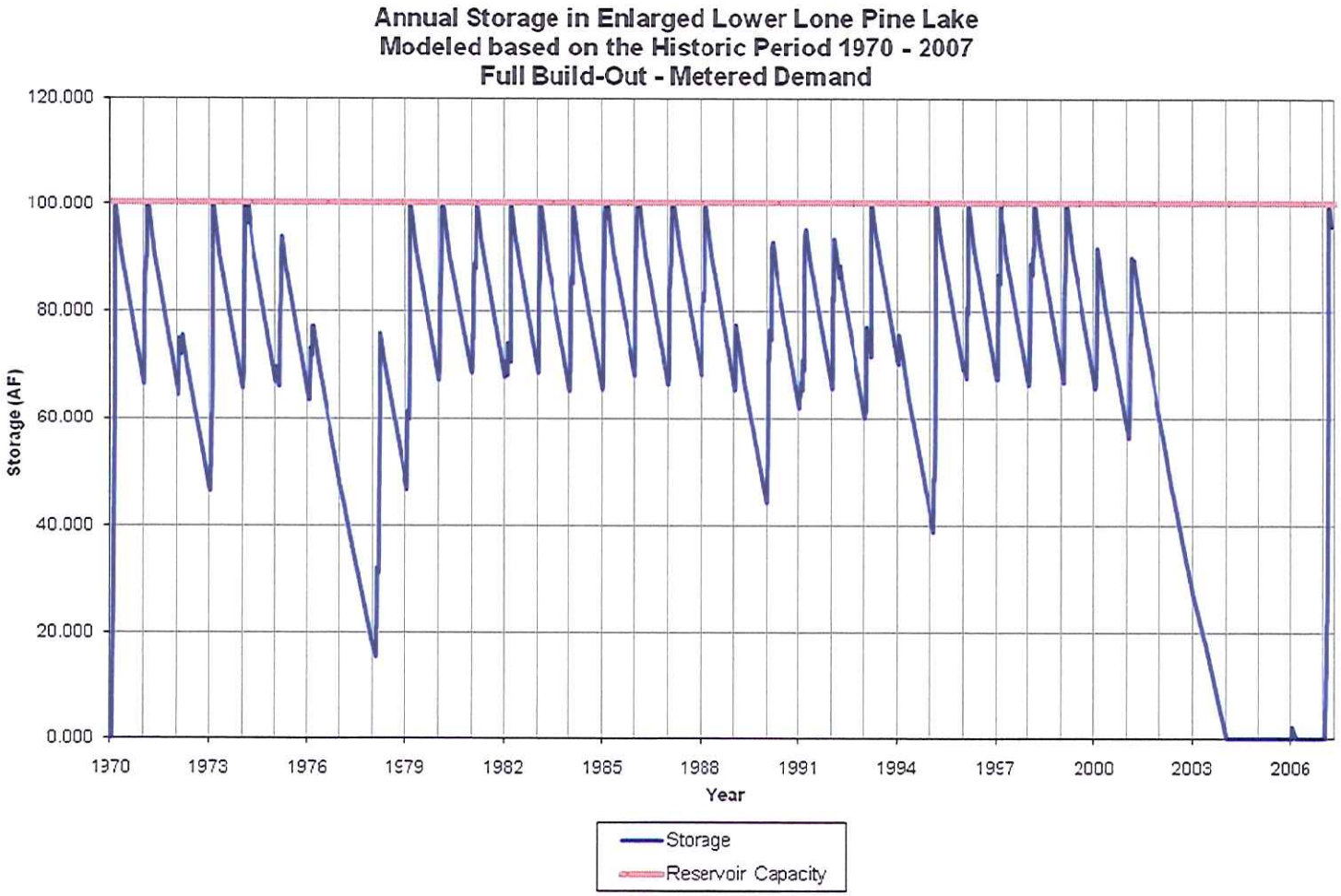

Figure 5.2 Full Build-Out Metered Demand

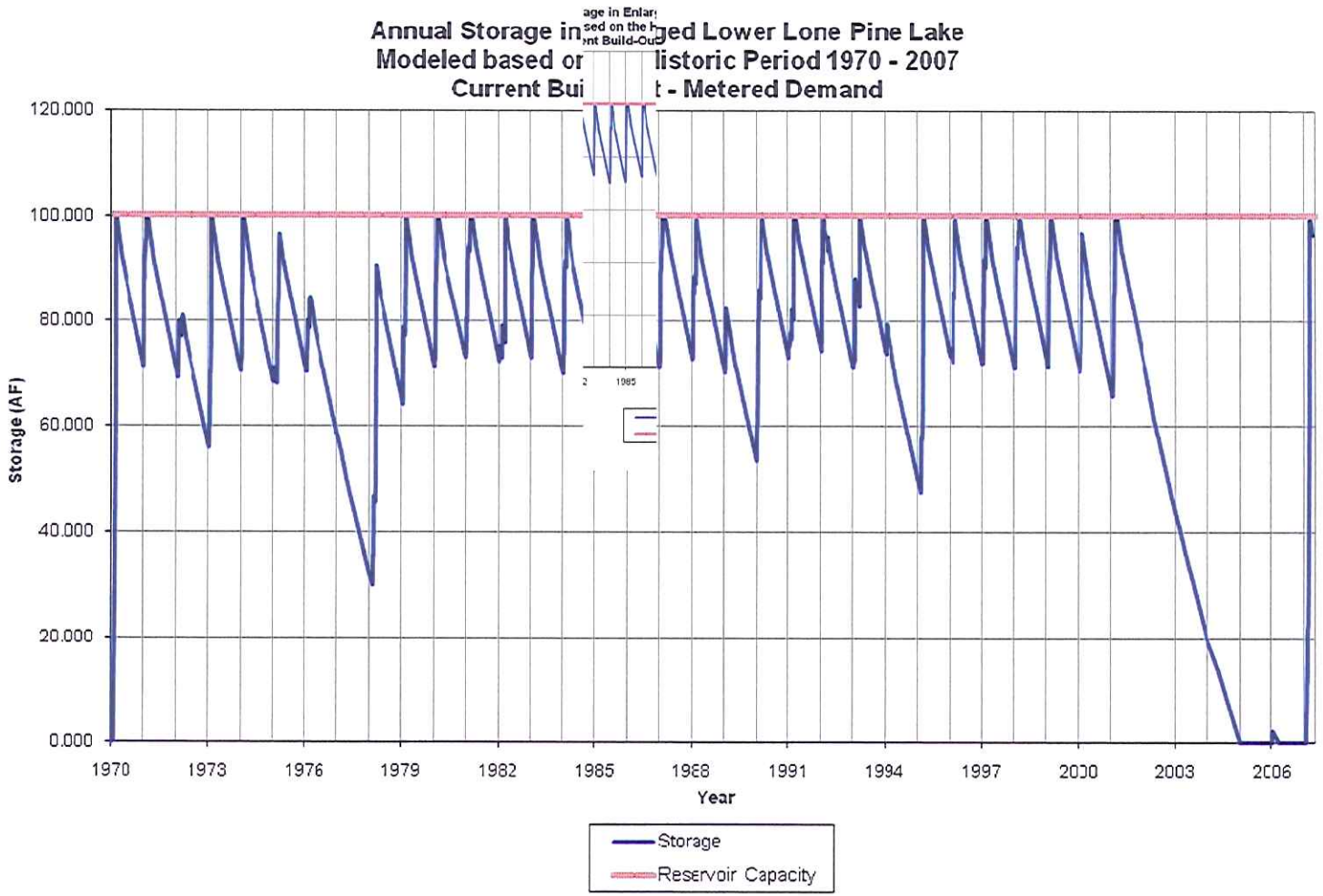

Figure 5.3 Current Build-Out Metered Demand

only empties in the period between 2002 and 2007 when main-stem calls, rather than local hydrologic conditions, prevent storage. It should also be pointed out that the model accounts for additional replacements from irrigated open space and evaporation. The formula for determining these replacements is described in the augmentation plan and they are not expected to increase beyond the current level of just over 2 acre-feet per year.

6.0 CHANGE OF CONDITIONAL WATER RIGHTS

6.1 Contemplated Draft of Upper Lone Pine Lake

The water rights associated with Upper Lone Pine Lake are conditional water rights, so there are no diversion records or measureable consumptive use (historic use) of water associated with them. In change cases involving conditional rights the "contemplated draft" doctrine is employed, as explained in the court case Thornton v. Clear Creek Water Users (Colo. 1993). Contemplated draft takes the place in a change of conditional storage right case of the historic use analysis that is done in a change of an absolute water right. Contemplated draft is the amount of water that the appropriators of a water right would have diverted from the stream had they carried out the appropriation as planned. In this case the water rights were intended to fill the proposed reservoir known as Upper Lone Pine Lake to meet the requirements of CLWSA's decreed augmentation plan.

The most recent report addressing the feasibility and technical aspects of Upper Lone Pine Lake was a draft completed by Resource Consultants and Engineers, Inc (RCE) in April 1993 and titled "Upper Lone Pine Lake Feasibility Study". The study was conducted on behalf of the CLWSA, the Red Feather Storage and Irrigation Company and the Red Feather Lakes Water District. The three entities proposed to partner on construction and operation of the reservoir. The technical analysis described in the report involved the construction of an operational model that accounted for basin hydrology, water rights and reservoir operations (releases and losses). The model was a historic simulation that inserted a hypothetical Upper Lone Pine Lake at the decreed location and computed the operational characteristics based on historic data over a 1969 to 1990 study period.

The report contemplated a reservoir at the decreed location with a live storage capacity of 271 AF, and a surface area of 22.7 acres at maximum pool. Modeling efforts described a reservoir of 294 acre-feet capacity, based on practical constraints at the decreed location. The modeling assumed that the storage rights for Upper Lone Pine Lake would most likely be in priority during snowmelt runoff in the May through June period. Storage during the July through September period was considered very unlikely and was not modeled. Wintertime storage was considered a possibility, under certain conditions, and was estimated.

Demands on the reservoir considered in modeling totaled 156 acre-feet annually. This figure included 49 acre-feet of evaporation losses and 107 acre-feet of combined replacements for stream depletions owed by the CLWSA and partnering entities. Planning for Upper Lone Pine Lake also considered scenarios where Upper Lone Pine Lake would have been utilized to make augmentation replacements for the entire Crystal Lakes Community, not just to replace depletions in the Lone Pine basin.

Figure 6.1 is taken from the RCE Report (Figure 3.4 originally); this figure shows the estimated seasonal potential storage for Upper Lone Pine Lake and illustrates some relevant conclusions drawn in the draft report. Potential storage (April – June) in 8 out of 22 years was between 200 and 700 acre-feet. The abnormally wet year of 1983 was omitted from the count. Potential storage (April – June) 13 out of 22 years is less than 100 acre-feet, but storage carryover, typically in excess of 88 acre-feet, maintains the reservoir pool in most years. Potential wintertime storage in any given year (Oct – March) was estimated at 125 acre-feet. The reservoir could have filled to capacity 14 out of 22 years during the study period.

RCE concluded from the modeling: "This operational analysis fully supports the earlier findings that there is adequate water supply available for the proposed reservoir and that the reservoir could significantly contribute to the augmentation plan for the residential developments."

6.2 COMPARISON OF ANTICIPATED AND CONTEMPLATED DRAFT

The anticipated draft of enlarged Lower Lone Pine Lake is 118 acre-feet. This amount is equal to the maximum draft necessary to fill enlarged Lower Lone Pine Lake from empty. Figure 6.2 shows the simulated annual diversions into enlarged Lower Lone Pine Lake generated by the model under decreed demands and full build-out. Comparison of Figures 5.1 and 6.2 shows that in two years, 1970 and 2007, when there is sufficient water available to Lower Lone Pine Lake and Upper Lone Pine Lake rights, the reservoir fills from empty by storing 118 acre-feet. Subtracting 10.5 acre-feet of this storage attributable to the Lower Lone Pine Lake right leaves 107.5 acre-feet stored under Upper Lone Pine Lake rights.

The contemplated draft on Upper Lone Pine Lake was 271 acre-feet, the three decreed conditional water rights for Upper Lone Pine Lake total to that amount. The planned live storage capacity of Upper Lone Pine Lake, 271 acre-feet from the 1993 RCE report and the anticipated the adjudication of the 1989 storage right demonstrates the intention of the CLWSA to store as much water as was legally available. The RCE report concluded that drafting 271 acre-feet of water from North Lone Pine Creek was feasible, and justified constructing a reservoir in excess of this amount. Projected demands likewise justified a reservoir of 271 acre-feet capacity or larger.

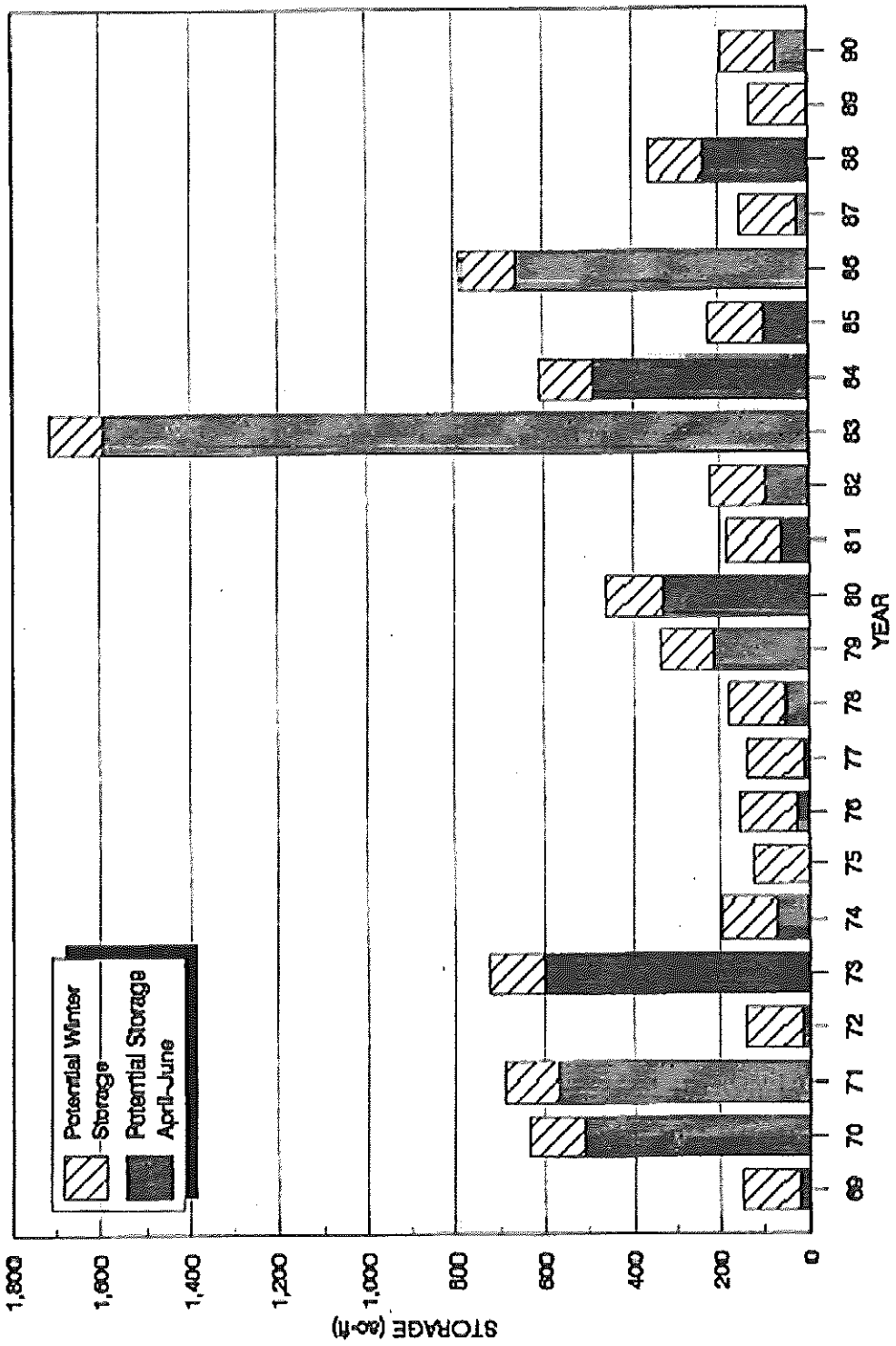

Figure 6.1 Estimated Seasonal Potential Storage for Upper Lone Pine Lake (RCE, 1993).

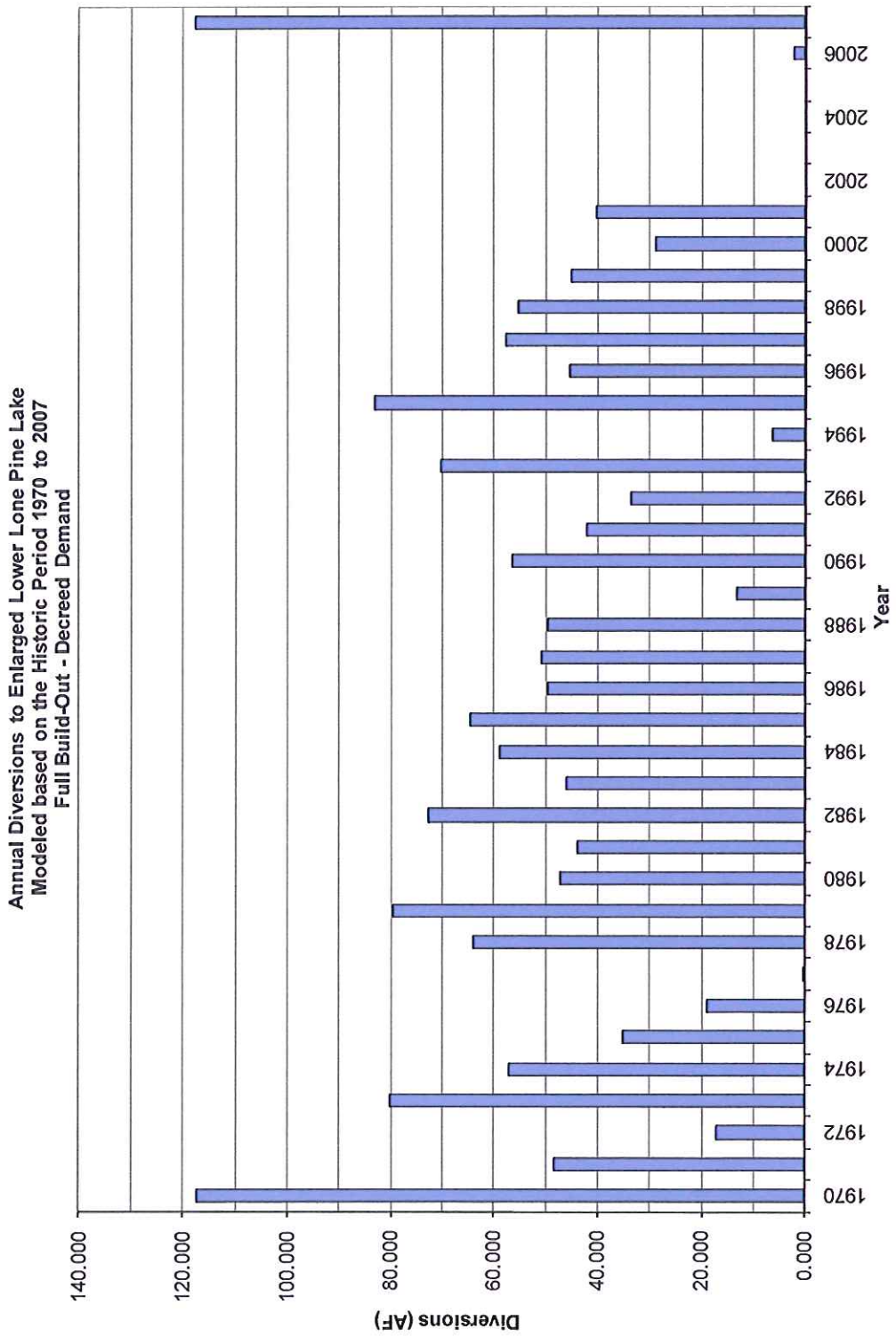

Figure 6.2 Annual Diversions. Full Build-Out Decreed Demand

Subtracting the Upper Lone Pine Lake component of the anticipated draft of enlarged Lower Lone Pine Lake from the contemplated draft of Upper Lone Pine Lake leaves 163.5 acre-feet available that could be stored in a reservoir at the decreed location for Upper Lone Pine Lake.

6.3 Return Flows and Carryover Storage

Water rights change cases typically include requirements related to return flows from original uses. Historic return flows must be maintained in order to prevent injury to water users on the stream once the use of the rights has been changed. The present change case involves conditional rights that have never been physically diverted and have no historic use. The contemplated draft for Upper Lone Pine Lake was for an augmentation facility. The use of conditional rights for augmentation is an entirely consumptive use with no return flow. The enlargement of Lower Lone Pine Lake will serve the same purpose. CLWSA takes the position that there will be no return flow requirements for this change.

SEO policy for changed conditional water rights is that any carryover storage attributable to the changed water rights stored in one year must count against the following year's fill.

7.0 ENVIRONMENTAL CONSIDERATIONS

7.1 Discharge in North Lone Pine Creek

Enlarging Lower Lone Pine Lake will have some affect on the stream flow in North Lone Pine Creek below the reservoir. ACE utilized the model to estimate the average monthly stream flow in the creek over the simulation period 1970 to 2007 based on two scenarios. The first scenario assumed that the existing Lower Lone Pine Lake was in place over the study period and is reflected in Table 7.1. The second scenario assumed that the proposed enlargement was in place and is reflected in Table 7.2. Table 7.3 shows the relative change between the two scenarios. The maximum average change in stream flow below Lower Lone Pine Lake as a result of the enlargement is anticipated to be 0.28 cubic feet per second. The stream flow analysis was considered in the Department of the Army Permit Decision Document (Corps File No. 200380495) (404 Permit); the stream flow changes were determined to be hydrologically and temporally minimal. The 404 Permit is included in Appendix I.

Table 7.1
NLPC Stream Flow Below Existing LLPL (10.5 AF)
Average Monthly (cfs)

Year	April	May	June	July
1970	1.00	17.04	22.28	2.12
1971	2.43	13.96	26.16	2.18
1972	1.26	6.26	8.17	0.47
1973	1.14	19.36	22.01	2.92
1974	3.42	19.73	12.01	1.87
1975	1.51	4.72	11.06	2.34
1976	1.15	6.46	6.84	0.89
1977	1.60	4.13	1.46	16.27
1978	1.08	6.98	11.09	0.79
1979	2.06	12.09	14.90	1.20
1980	2.50	14.82	16.20	0.91
1981	1.96	7.43	6.51	1.74
1982	0.90	7.21	22.09	4.90
1983	1.78	20.80	52.32	12.19
1984	1.33	21.29	15.44	2.83
1985	2.04	12.96	6.28	1.14
1986	4.01	14.66	26.90	2.15
1987	2.17	7.11	2.50	0.49
1988	2.52	16.35	13.90	1.05
1989	1.80	4.90	2.13	0.29
1990	2.30	7.49	6.10	0.87
1991	1.02	9.54	7.72	0.54
1992	2.74	9.62	5.59	1.11
1993	1.35	14.62	12.31	1.20
1994	2.61	12.74	3.28	0.07
1995	0.65	6.26	24.26	3.92
1996	2.00	14.64	9.48	1.02
1997	1.51	15.77	16.11	1.06
1998	1.56	10.04	7.48	1.45
1999	1.67	11.14	14.38	1.53
2000	1.20	10.86	2.98	0.32
2001	1.05	7.62	2.36	0.44
2002	1.09	1.67	0.50	0.01
2003	2.97	18.10	15.91	1.27
2004	2.46	6.70	2.95	1.34
2005	2.54	12.48	14.12	1.72
2006	1.92	6.72	1.86	0.51
2007	3.65	16.70	8.74	---
Average	*1.89*	*11.34*	*12.01*	*2.08*

Table 7.2
NLPC Stream Flow Below Enlarged LLPL (90 AF Enlargement)
Average Monthly (cfs)

Year	April	May	June	July
1970	0.93	15.60	22.15	2.12
1971	2.19	13.60	26.16	2.18
1972	1.24	6.25	8.11	0.47
1973	1.07	18.48	22.01	2.92
1974	3.16	19.39	11.87	1.87
1975	1.48	4.71	10.70	2.34
1976	1.11	6.41	6.83	0.89
1977	1.60	4.13	1.46	16.27
1978	1.08	6.88	10.31	0.79
1979	2.00	11.29	14.56	1.20
1980	2.36	14.42	16.20	0.91
1981	1.75	7.16	6.44	1.74
1982	0.87	7.21	21.41	4.90
1983	1.67	20.38	52.32	12.19
1984	1.12	20.87	15.44	2.83
1985	1.64	12.73	6.27	1.14
1986	3.62	14.47	26.90	2.15
1987	2.00	6.69	2.49	0.48
1988	2.41	15.83	13.90	1.05
1989	1.78	4.90	2.13	0.29
1990	1.96	7.12	6.04	0.87
1991	0.97	9.54	7.27	0.54
1992	2.42	9.62	5.54	1.11
1993	1.22	14.62	11.69	1.20
1994	2.56	12.74	3.28	0.07
1995	0.65	6.13	23.06	3.92
1996	1.99	14.37	9.20	1.02
1997	1.33	15.39	16.11	1.06
1998	1.31	9.94	7.10	1.45
1999	1.59	10.68	14.38	1.53
2000	1.15	10.63	2.98	0.32
2001	0.94	7.31	2.31	0.44
2002	1.09	1.67	0.50	0.01
2003	2.97	18.10	15.91	1.27
2004	2.46	6.70	2.95	1.34
2005	2.54	12.48	14.12	1.72
2006	1.90	6.72	1.86	0.51
2007	3.65	15.08	8.61	---
Average	*1.78*	*11.06*	*11.86*	*2.08*

Table 7.3
Change in Stream Flow Below LLPL
Average Monthly (cfs)

Year	April	May	June	July
1970	-0.08	-1.45	-0.12	0.00
1971	-0.24	-0.36	0.00	0.00
1972	-0.02	-0.01	-0.06	0.00
1973	-0.07	-0.88	0.00	0.00
1974	-0.26	-0.35	-0.13	0.00
1975	-0.03	-0.01	-0.36	0.00
1976	-0.05	-0.05	-0.01	0.00
1977	0.00	0.00	0.00	0.00
1978	0.00	-0.09	-0.78	0.00
1979	-0.06	-0.80	-0.34	0.00
1980	-0.14	-0.40	0.00	0.00
1981	-0.21	-0.27	-0.06	0.00
1982	-0.03	0.00	-0.68	0.00
1983	-0.12	-0.42	0.00	0.00
1984	-0.22	-0.42	0.00	0.00
1985	-0.40	-0.23	-0.01	0.00
1986	-0.40	-0.20	0.00	0.00
1987	-0.17	-0.42	-0.02	-0.01
1988	-0.11	-0.52	0.00	0.00
1989	-0.03	0.00	0.00	0.00
1990	-0.34	-0.36	-0.06	0.00
1991	-0.05	0.00	-0.45	0.00
1992	-0.32	0.00	-0.05	0.00
1993	-0.13	0.00	-0.62	0.00
1994	-0.05	0.00	0.00	0.00
1995	0.00	-0.12	-1.20	0.00
1996	-0.02	-0.27	-0.28	0.00
1997	-0.18	-0.38	0.00	0.00
1998	-0.24	-0.11	-0.38	0.00
1999	-0.08	-0.46	0.00	0.00
2000	-0.05	-0.23	0.00	0.00
2001	-0.11	-0.31	-0.05	0.00
2002	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00
2006	-0.02	0.00	0.00	0.00
2007	0.00	-1.62	-0.14	---
Average	*-0.11*	*-0.28*	*-0.15*	*0.00*

Notes:

1. NLPC = North Lone Pine Creek
2. LLPL = Lower Lone Pine Creek
3. Discharges estimated based on the historic modeling period 1970 to 2007.
4. Table 7.3 = Table 7.2 - Table 7.1

7.2 Inundation of North Lone Pine Creek

The proposed 90 acre-foot enlargement of Lower Lone Pine Lake will inundate up to 900 feet of North Lone Pine Creek when full. Inundation may result in a loss of habitat for species accommodated to the existing flow regime. Stream segments inundated will likely see changes to water temperature, oxygen levels and sediment transport. Inundation and fill in wetland areas will destroy organisms in the footprint of the fill and inundation.

The 404 Permit addressed impacts to threatened and endangered species, fish and other aquatic organisms as well as other wildlife. The enlargement of the reservoir was not expected to impact endangered species. Likewise, no damaging effect on fish is expected, as North Lone Pine Creek was not observed to be suitable fish habitat as the channel is far too shallow. Aquatic invertebrates, which may be affected, are expected to recover. Significant impacts are not expected on other wildlife and the site would likely improve habitat for some wildlife due to increased water area and surface flows.

Habitat loss associated with the inundation of wetlands will be mitigated as the wetlands are replaced at the upper fringes of the reservoir. The 404 Permit specifically states, "Mitigation will occur by creating an in-kind scrub/shrub wetland on the upstream portion of the reservoir." (Item 2.4, Page 7.)

7.3 Request to Inundate

The Colorado Water Conservation Board (CWCB) filed a Statement of Opposition to the CLWSA change application on February 26, 2010 citing potential injury to instream flow (ISF) rights, particularly inundation of the ISF right on North Lone Pine Creek (Case No. 85CW421). In response, CLWSA sent a Request to Inundate in conformance with Rule 7c of the CWCB Rules Concerning Instream Flow and Natural Level Program (Rules) on March 11, 2011. A copy of the request letter is included in Appendix J. The Request to Inundate addresses seven specific items of required information including the location of the inundation, size of the inundation, environmental impact, unique characteristics of the ISF right, regulatory requirements, terms and conditions of the proposed decree (copy attached as Appendix K) and any offers of compensation or mitigation by the applicant.

The request set forth the CLWSA position that, based upon the information provided, no compensation or mitigation should be required since the proposed inundation is small, as defined by Rule 7a, there is no expansion of use, the environmental impact is minimal, the enlargement will expand recreational opportunities and the project has been approved by the Corps of Engineers (404 permit) with all the attendant requirements.

8.0 CONCLUSIONS

The following conclusions are drawn from the information contained in this report:

1. Enlargement of Lower Lone Pine Lake and the application to use it as an alternate place of storage for conditional water rights from Upper Lone Pine Lake is necessary for CLWSA to meet the obligations of the augmentation decree. The decree ties the allowable use of water from wells in the basin to minimum storage in the Lone Pine basin. The enlargement of Lower Lone Pine Lake will provide the storage and allow the CLWSA to administrate the plan based on the storage levels and allowable water use listed in Table 2.1. Additionally, storage in the basin will allow the CLWSA to satisfy calls from senior rights in the Lone Pine basin, reducing the risk to residents of curtailment of well usage.

2. The modeling effort described in this report has demonstrated that water is reasonably available in priority to support this project. Water is available to Upper Lone Pine Lake rights in the North Lone Pine Creek basin after physical limitations and calls from senior water rights are accounted for. The model demonstrated that under the highest demand, full build-out and decreed demand, the proposed reservoir fills 50% of the time. The reservoir fills 68% of the time under more realistic demands. Operations modeling has shown that sufficient storage is provided in the space available to support releases for augmentation demands under normal conditions. In the worst case scenario the reservoir empties 13% of the simulation period. Reducing demand to current levels of build-out and metered usage decreases the empty period to 5%.

3. Analysis in this report has shown how the change to the Upper Lone Pine Lake rights can be made without injury to other water rights. There is adequate supply, as discussed in conclusion No. 2. The use of the water rights outlined in the three Upper Lone Pine Lake decrees contained in Appendix D will not change. The proposed storage of Upper Lone Pine Lake rights in Lower Lone Pine Lake will not result in expanded use of the water rights beyond contemplated draft. The contemplated draft of Upper Lone Pine Lake was 271 acre-feet, which is greater than the 107.5 acre-feet anticipated draft (from Upper Lone Pine Lake rights) of the Lower Lone Pine Lake enlargement. The changed water rights are entitled to only 271 acre-feet in any year, no refill. Return flow requirements are not applicable as augmentation use is 100% consumptive. Carryover storage attributable to the changed water rights will be accounted for and count against next year's fill.

4. Flow modeling has helped demonstrate that the enlargement of Lower Lone Pine Lake will have a minimal affect on the environment. Storage and discharge information provided to the Corps of Engineers was used to support the conclusion in the 404 permit that the Lower Lone Pine Lake enlargement is permissible from an environmental standpoint.

5. The current proposed decree for Case No. 09CW185, the CLWSA change case addressed in this report, is included in Appendix K. The terms and conditions of the proposed decree agree with the four conclusions listed above and will prevent injury to other water rights. Specifically, the decree states the enlargement of Lower Lone Pine Lake is necessary for CLWSA to meet the requirement of the augmentation decree, adequate water is available in priority to support proposed enlargement, the use of the water will not change from decreed uses, the use of the water will not exceed the contemplated draft of Upper Lone Pine Lake, the amount of fill in a given year is limited by the previous year's carryover, and all necessary permitting designed to protect the environment has been, or will be, obtained.

9.0 REFERENCES

References consulted that are not included in the appendices:

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Appendix C

Alternatives Analysis

Lower Lone Pine Lake - Alternatives Analyzed

Alternatives Descriptions

Proposed Action

The proposed action involves the enlargement of the existing Lower Lone Pine Lake dam. Jurisdictional wetlands mapping was performed in July of 2008. A total of 0.602 acres of wetlands will be impacted by this alternative. Of this total, less than one tenth of an acre (0.097) would be impacted by the dam fill and spillway excavation. Total costs for the proposed the Proposed Action are about $2.5 million.

Agricultural Water Purchase

A possible agricultural water purchase would involve the purchase of adequate currently irrigated lands downstream on Lone Pine Creek to offset the 120 acre-foot augmentation requirement.

Assuming that the total consumptive use of currently irrigated land downstream from Crystal Lakes Water and Sewer Association (CLWSA) is approximately 1.5 acre-feet per acre, the total irrigated land requirement would be about 80 acres.

Based upon information obtained from the Colorado-Big Thompson (CBT) water sales, the lowest price recently paid since December 2002 was approximately $10,750 per unit of CBT water (see attached). CBT units yield an average of 0.7 AF/year in normal water years. Using this price as a basis in estimating the approximate cost of acquiring 120 AF of augmentation water downstream the total cost could approach $1.84 million (120/0.7*$10,750). This would equate to about $23,000 per acre of irrigated land purchased.

The logistical problem with this alternative is that the augmentation water is owed to all senior appropriators downstream from the project, not just a single identified appropriator. In addition, the CLWSA will still require storage in the Lone Pine Basin to carry water over so that it would be available in a dry year or series of dry years. With the addition of storage, this option is no longer cost competitive.

This alternative does not satisfy the intent of the water augmentation requirement. Because of the logistical problem with this alternative it has been eliminated from further consideration.

Enlargement to Panhandle Reservoir

The existing Panhandle Reservoir located within the Panhandle Creek drainage, adjacent to Lone Pine Creek (See Figure 1), could potentially be enlarged by approximately four (4) feet to accommodate a 120 acre-foot enlargement. This dam raise would inundate a total of approximately six (6) acres, most of which are wetlands.

The primary problems with this alternative are the lack of available water for storage under a current day priority and the fact that any water stored within the Panhandle Creek drainage would have to be diverted and pumped to the Lone Pine Creek drainage.

This alternative has been eliminated due to its wetlands impacts, costs and water supply.

Upper Lone Pine Lake Dam

This alternative had an individual application filed on with the Denver Regulatory Office on December 30, 2003. Once initial environmental work and wetlands mapping was initiated, it was discovered that approximately 17 acres of wetlands would be inundated by this alternative. As a result, the application was pulled by the Applicant and they initiated studies to find "less damaging" alternatives for their water augmentation requirement.

Off-Channel Reservoir Site

States West has identified one possible off-channel storage site located approximately 0.5 miles downstream from the Proposed Action (See Figure 1). From existing mapping, it appears that no wetlands would be impacted by the alternative. However, the site would be located on U.S. Forest Service lands, which may preclude its consideration and its anticipated costs are estimated at nearly $6M, well beyond the ability of the CLWSA's ability to pay.

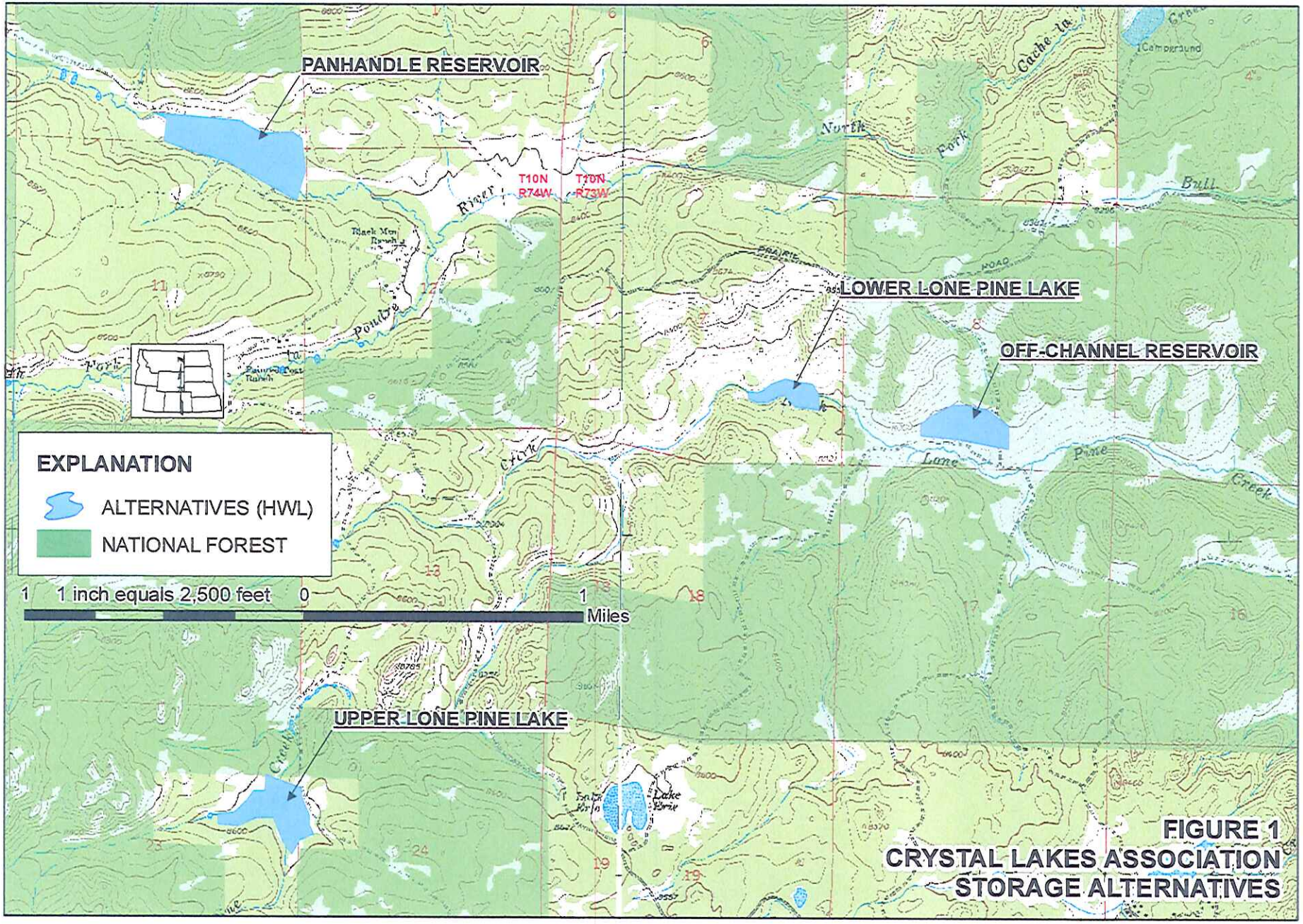

FIGURE 1
CRYSTAL LAKES ASSOCIATION
STORAGE ALTERNATIVES

Wetland Delineation Report
Crystal Lakes Water and Sewer Association Reservoir Expansion Project
Larimer County, Colorado

Prepared for:

States West Water Resources Corporation
1904 E. 15th Street
Cheyenne, WY 82001

Prepared by:

Greg Johnson
Elizabeth Lack

WEST Inc.
2003 Central Avenue
Cheyenne, WY 82001

WEST, Inc.
Specializing in Ecological Field Studies

August 9, 2008

INTRODUCTION

The Crystal Lakes Water and Sewer Association (CLWSA) near Red Feather Lakes, Colorado is proposing to expand an existing small reservoir ("Lower Lone Pine Lake") on Lone Pine Creek for water supplementation to water users downstream of the subdivision. Enlargement of the existing dam will result in wetland impacts where fill is placed to construct the new dam. Additional wetlands will be inundated once the existing pool is enlarged.

The Clean Water Act (CWA) represents the intent of Congress to control further degradation of the nation's waters by maintaining and restoring their chemical, physical and biological integrity. Section 404 of this act, responsibility for which has been delegated jointly to the U.S. Army Corps of Engineers (COE) and the U.S. Environmental Protection Agency (EPA), prohibits the discharge of dredged and fill materials into waters of the United States without a permit. The term "waters of the United States" has been defined to include essentially all surface waters connected to a surface tributary system. The term also includes wetlands. The purpose of this project was to determine the acreage of wetlands impacted through enlargement of the existing dam on Lone Pine Creek.

METHODS

Because wetlands are often difficult to identify, the U.S. Army Corps of Engineers developed the Wetland Delineation Manual (Environmental Laboratory 1987) to help identify those wetlands subject to Section 404. This manual, along with the regional supplement for the Western Mountains, Valleys and Coast region (U.S. Army Corps of Engineers 2008), were used to delineate wetlands for this project. The manuals provide guidelines and sampling procedures to be used to determine if an area is a wetland. The manuals direct the user through a series of steps that involve data gathering and decision-making and lead ultimately to a wetland/nonwetland decision.

The manual defines wetlands as "...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." This definition identifies three wetland parameters: hydrophytic vegetation, hydric soils and hydrology. A number of sampling approaches are identified to determine the presence or absence of indicators of these parameters. The most basic approach, and the one used on this project, is known as the routine sampling procedure. The routine procedure requires that a prospective site first be surveyed for disturbance and a map of the vegetative communities prepared. A sample plot is then located in a representative location within each suspected wetland community. At each plot the vegetation is examined for hydrophytic species as identified in the List of Plant Species That Occur in Wetlands (U.S. Fish and Wildlife Service 1988) for Region 8 (Intermountain Region). This list identifies wetland plant species and assigns each one a rating based on its ability to grow in saturated soil. Species that require saturated soils are rated obligate (OBL), while those better suited to slightly drier conditions are rated facultative wet (FACW). Species that can be found in both wet and dry soils are identified as facultative (FAC). Obligate, Facultative Wet, and Facultative species are all considered to be

wetland plants. Facultative upland (FACU) and upland (UPL) species are not considered to be wetland species. Additionally, species not contained in the list are usually considered upland species. Vegetation is considered to be hydrophytic when more than 50% of the dominant species are rated as OBL, FACW, or FAC. This definition of hydrophytic vegetation was used for this project.

The soils at each plot were examined for hydric soil indicators by digging a soil pit to approximately 16 inches. Hydric soils are those that have developed under reducing conditions such as are caused by prolonged and repeated saturation or inundation. Common hydric soil indicators include low chroma colors, mottling, iron and manganese concretions, and gleying. These indicators should be present just below the A horizon or at 10 inches, whichever is shallower. Listing of the soil series by the Soil Conservation Service on the national hydric soils list (SCS 1991) will also satisfy the hydric soil parameter.

Hydrology is the driving force behind wetland development. It is the prolonged saturation in the root zone that gives rise to hydrophytic vegetation and hydric soils. The manual requires that there be evidence of saturation usually within 10 inches of the surface. Drainage patterns, drift lines, sediment deposits and visual observation of saturation or inundation are identified as acceptable indicators of wetland hydrology.

Based on the presence or absence of hydrophytic vegetation, hydric soils and wetland hydrology, each plant community was classified as wetland or upland and the wetland/nonwetland boundary was established. Normally, positive indicators of all three parameters must be present for a community to be considered wetland. However, exceptions to this rule may occur when one indicator, (e.g. hydrology) is absent due to annual or seasonal fluctuations in precipitation or groundwater levels. Deviations from the sampling approaches are not only permitted by the manual but are sometimes necessary. The 1987 manual frequently uses the term "dominant vegetation" but provides no definition. The term is defined by the 1989 Federal Manual for Identifying and Delineating Wetlands, which is no longer in use, as those species the dominance measures of which, when added together, immediately exceed 50% of the total dominance measure, plus those individual species which contribute 20% or more of the total dominance measure. This definition was used for this project. Estimated areal coverage was the measure by which dominance was determined.

Field work for this project was conducted on July 3, 2008. Surveyors had previously flagged the limits of the inundation pool for the new reservoir. Wetlands along this affected stream reach and around the existing reservoir perimeter were delineated. Data forms used for the delineation are attached in Appendix A, and photographs of wetlands are provided in Appendix B.

To quantify wetland impacts, once wetland boundaries were defined, they were mapped using a GPS with sub-meter accuracy (Trimble GEO XT). The shape files were then used to calculate wetland impacts associated with the project. Approximately 700 feet of Lone Pine Creek above the existing reservoir will be inundated. Most of this stream reach did not have wetlands associated with it, but portions had narrow wetland fringes (e.g., 1-2 feet wide), too small to effectively map with the GPS. To determine wetland impacts along this reach, the wetland fringe width was measured at 10 randomly selected locations along the reach, and these

measurements were averaged to get the mean wetland fringe width, which was multiplied by the stream reach length.

RESULTS

Six wetland areas are present along the existing reservoir and affected stream reach (Figure 1). In addition, there is a very narrow fringe wetland along portions of Lone Pine Creek above the existing reservoir. All of the wetlands are associated with Lone Pine Creek and are likely jurisdictional. The largest wetland at the upper end of the existing reservoir (Site 1) is a scrub-shrub wetland dominated by willow (*Salix* spp.) with an understory dominated primarily by beaked sedge (*Carex rostrata*) and reed canary grass (*Phalaris arundinaceae*). Site 2 is a fringe along the north end of the existing reservoir dominated by reed canary grass. Sites 3 and 4 are wetlands within the existing dam spillway and are also dominated by reed canary grass. Site 5 is a scrub-shrub wetland dominated by willow with an understory of Baltic rush (*Juncus balticus*), beaked sedge, and Kentucky bluegrass (*Poa pratensis*) below the existing dam. Site 6 is a small fringe wetland along Lone Pine Creek downstream of the dam and dominated by reed canary grass. Site 7 consists of a narrow wetland fringe along Lone Pine Creek upstream of the existing reservoir within the proposed inundation area. This wetland fringe is dominated by bluejoint reedgrass (*Calamagrostis canadensis*) and beaked sedge. It averaged 2 feet in width (one foot on each side of the stream) for the entire length of 700 feet.

The total area of wetland impact is 0.602 acres as summarized in the following table:

Wetland number	Wetland type	Acreage
1	Scrub-shrub (PSSC)	0.432
2	Wet Meadow (PEMC)	0.041
3	Wet Meadow (PEMC)	0.030
4	Wet Meadow (PEMC)	0.044
5	Scrub-shrub (PSSC)	0.020
6	Wet Meadow (PEMC)	0.003
7	Wet Meadow (PEMC)	0.032
	TOTAL	**0.602**

In addition to wetland impacts, approximately 700 feet of Lone Pine Creek, considered a water of the US, will be affected by the project. Lone Pine Creek averages approximately 5 feet in width within the affected reach.

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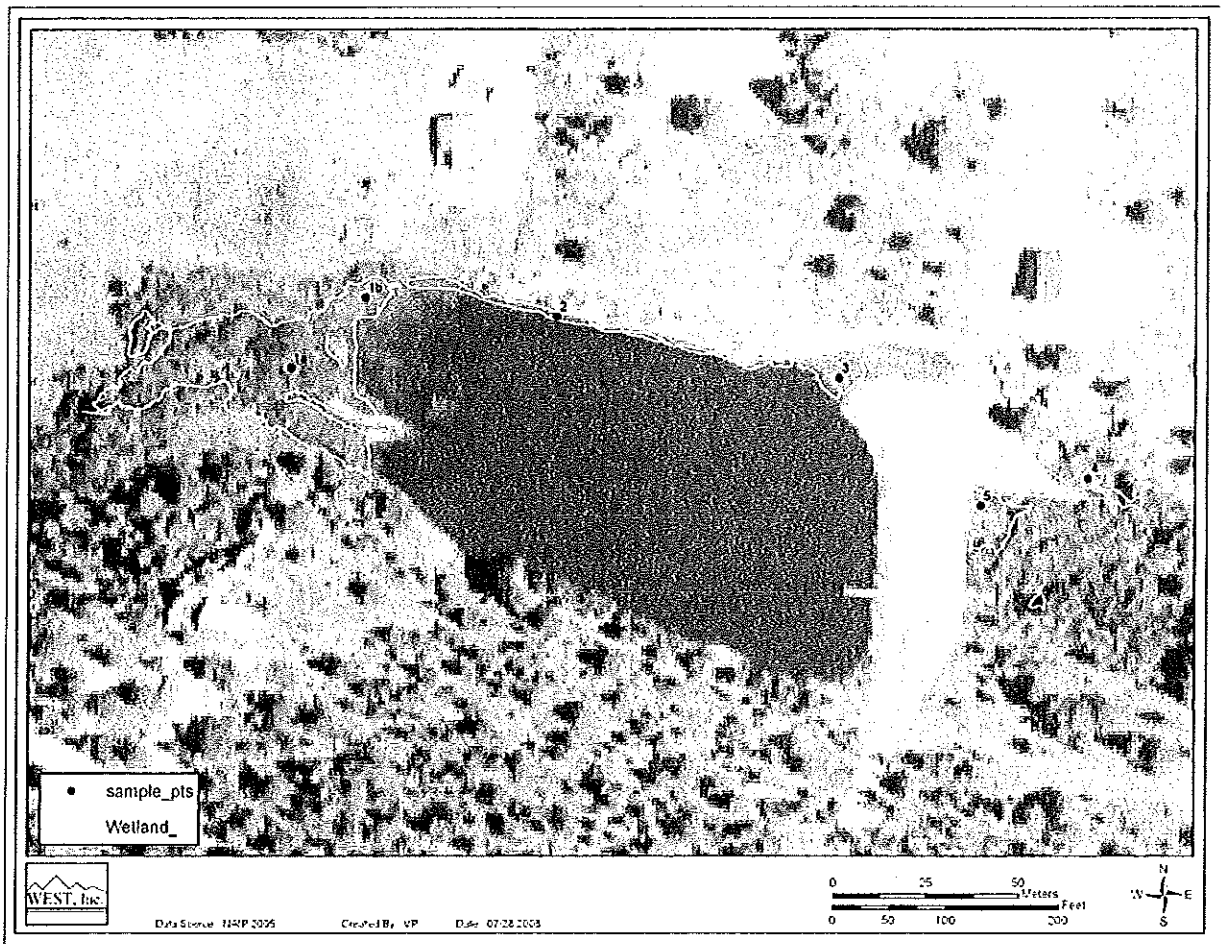


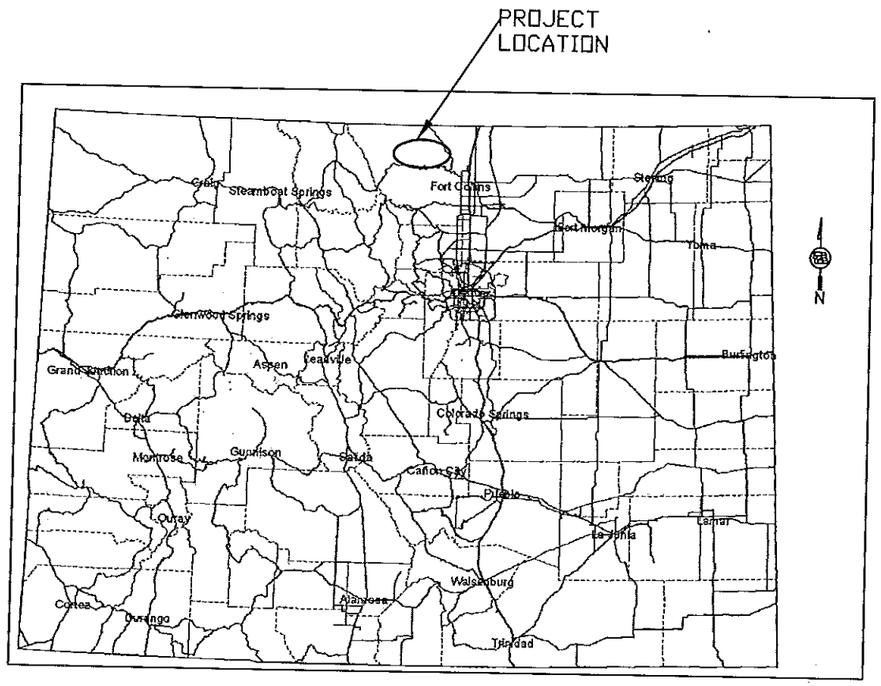
Figure 1. Locations of wetlands and sample points at the Lower Lone Pine Lake project site

Appendix D

Preliminary Design Drawings

LONE PINE RESERVOIR ENLARGEMENT

LARIMER COUNTY
WATER DIVISION 1, WATER DISTRICT 3
CONSTRUCTION PLANS



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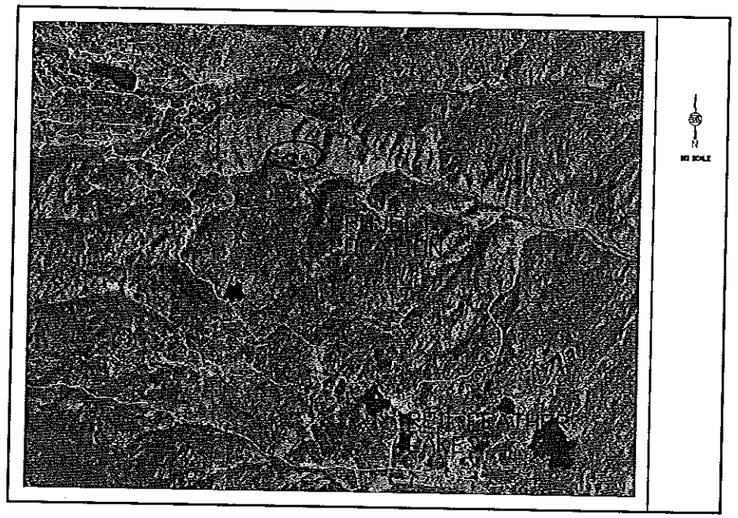

VICINITY MAP
NO SCALE

CERTIFICATE OF ENGINEER

STATE OF COLORADO)
COUNTY OF LARIMER) SS

I, Victor E. Anderson, hereby certify that these plans were prepared under my direct supervision using States West's designs for whose work I stand personally responsible.

Victor E. Anderson, Colo. P.E. No. 36009

Approved on the ____ day of _____20__

State Engineer
By:_____
Deputy State Engineer

These plans represent the AS-CONSTRUCTED conditions of the Lone Pine Reservoir Enlargement Dam to the best of our knowledge and judgment, based in part on information furnished by others, as of the _____ day of _____20__

(Engineer's printed name) (Signature)

List of drawings located on Page 2

FILE NAME: Coversheet
PLOT SCALE: 1/2
OPERATOR: NLW
DATE: MAR 2010
PROJECT NO. 578
DESK NO. 145
LOCATION: LOWER LONE PINE RESERVOIR
PROJECT: LONE PINE RESERVOIR
SEND TO: VICTOR E. ANDERSON, PE
PHONE: (307) 634-7848

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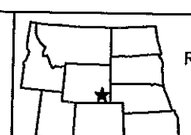

STATES WEST WATER RESOURCES CORPORATION
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FAX: (307) 634-7851

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PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

TITLE SHEET

REVISION	1
PROJECT	578
STATE ENGINEER'S FILE NO.	
DRAWING	1

LONE PINE RESERVOIR ENLARGEMENT

DRAWING INDEX

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PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO: 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7848

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PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

INDEX

REVISION	1
PROJECT	578
STATE ENGINEER'S FILE NO.	
DRAWING	2
SHEET	2 OF 21

LONE PINE RESERVOIR ENLARGEMENT

ELEVATION–CAPACITY AND FLOW RATING TABLES

LONE PINE RESERVOIR ENLARGEMENT
ELEVATION - CAPACITY TABLE

Elevation	TOTAL CAPACITY (AF)	Comments
7950 =	0	
7958.5	~~0.279~~ 1	Outlet Works Inlet
7960	~~1~~ 3	
7965	~~4~~ 8	
7970	~~10~~ 16	
7975	29	
7980	54	
7985	95	
7986.5	100	NHWL
7990	128	
7994	155	Top of Dam

LONE PINE RESERVOIR ENLARGEMENT
RESERVOIR OVERFLOW RATING TABLE

Elevation	Flow-CFS	Comments
7986.5	0	Overflow-NHWL
7987	41	
7987.5	127	Spillway Elevation
7988	140	Pipe Control
7989	143	
7990	146	
7991	150	
7992	153	
7993	156	
7994	160	Top of Dam

LONE PINE RESERVOIR ENLARGEMENT
WETLAND BERM OVERFLOW
RATING TABLE

Elevation	Q (CFS)	Comments
7986.5	0	
7987.5	390	
7988.5	1103	
7989.5	2026	
7990	2554	Building Foundation

100 YEAR FLOW = 2400 CFS

LONE PINE RESERVOIR
ENLARGEMENT
WETLAND OUTLET PIPE RATING

ΔH (FT)	Q (CFS)
0	0
1	75
2	110
3	130

LONE PINE RESERVOIR ENLARGEMENT
SPILLWAY RATING TABLE

Elevation	Q (CFS)	Comments
7987.5	0	
7988	207	
7989	1075	
7990	2312	
7991	3831	
7992	5584	
7993	7546	
7994	9695	Top of Dam

IDF PEAK FLOW = 8680 CFS

LONE PINE RESERVOIR
ENLARGEMENT OUTLET
WORKS CAPACITY

Elevation	Flow-CFS
7958.5	0
7960	5
7964.8	10
7972.3	15
7983.3	20
7996.6	25

LONE PINE RESERVOIR ENLARGEMENT
WETLAND OVERFLOW RATING

Elevation	H (FT)	Q (CFS)
7986.5	0	0
7987.5	1	127
7988.5	2	264
7989.5	3	485

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LONE PINE RESERVOIR ENLARGEMENT

RATING TABLES

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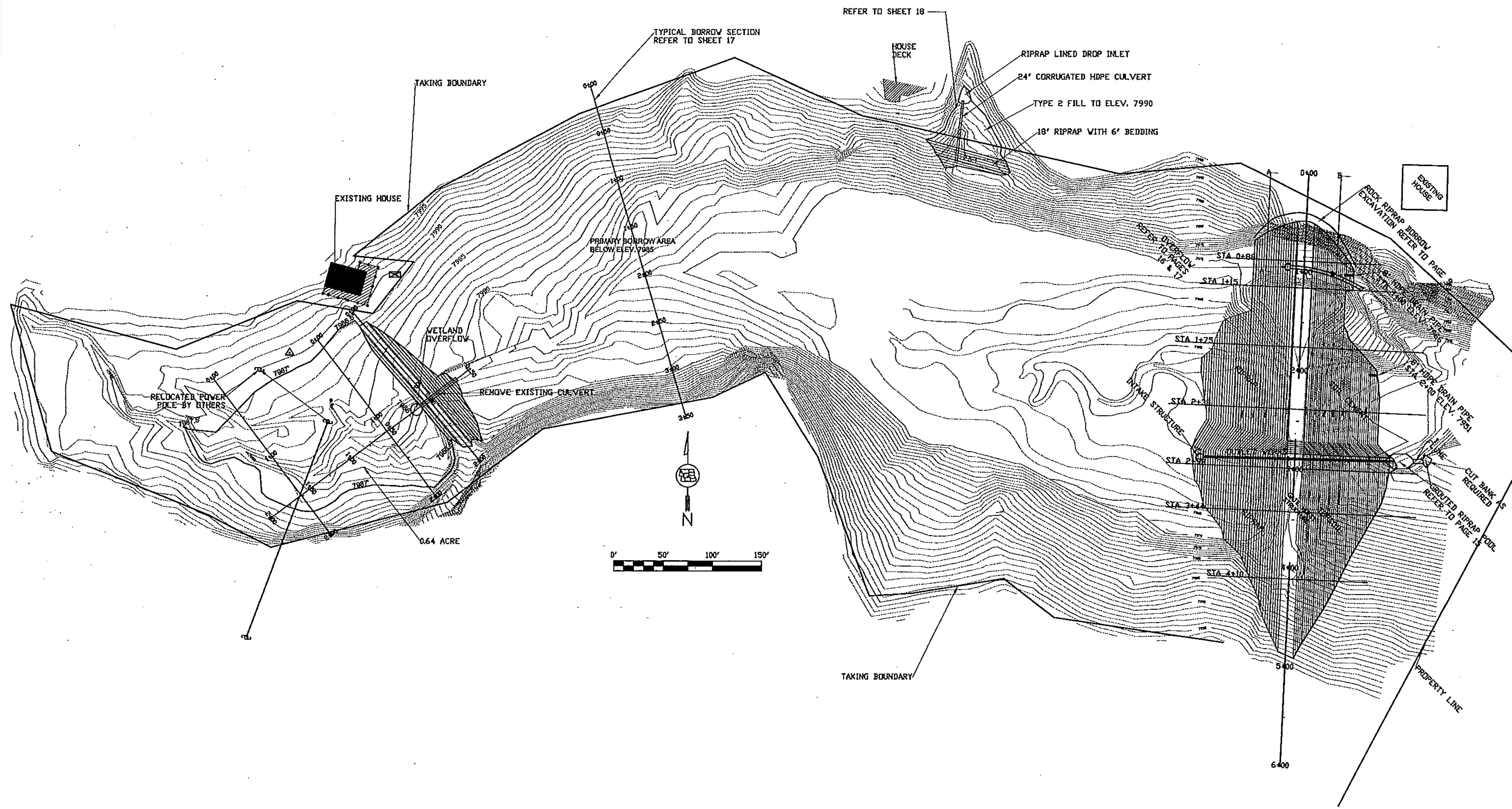

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PROJECT MANAGER	VEA
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LONE PINE RESERVOIR ENLARGEMENT

RESERVOIR PLAN

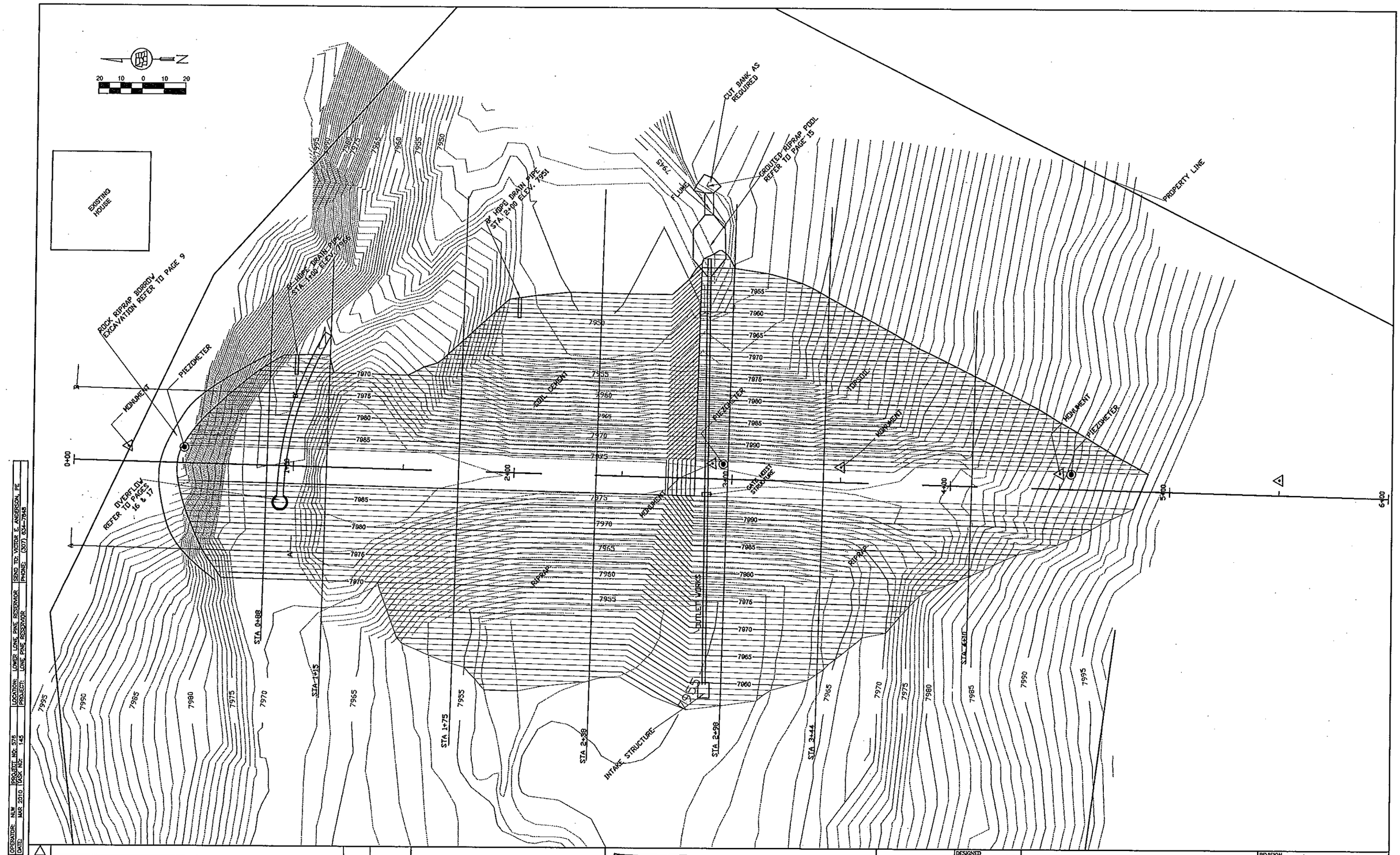
REVISION 1

PROJECT 576

STATE ENGINEER'S FILE NO.

DRAWING 4

SHEET 4 OF 21



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LOCATION: LOWER LONE PINE RESERVOIR
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LONE PINE RESERVOIR ENLARGEMENT

DAM SITE FINISHED CONTOURS

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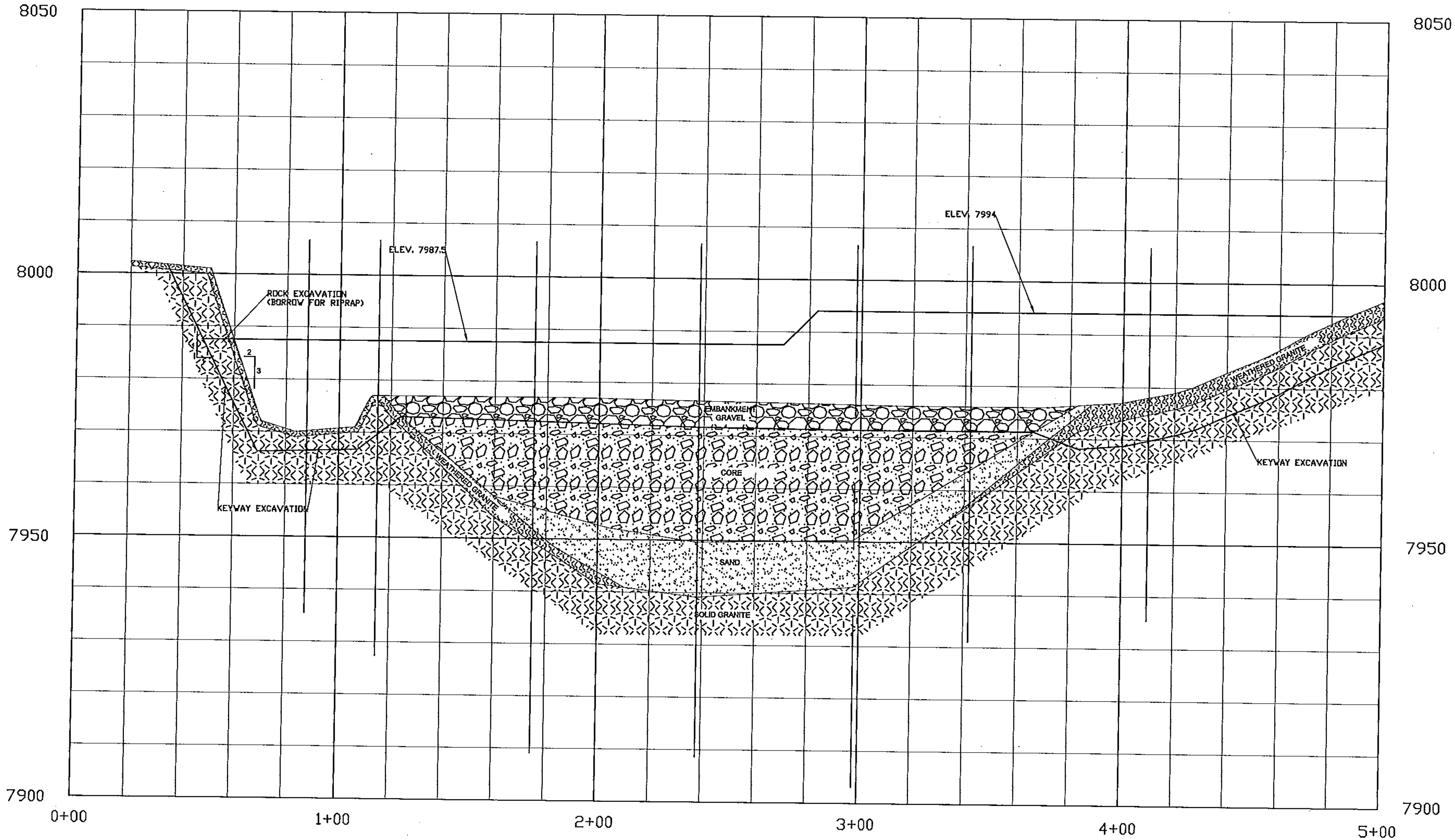

DAM CENTER LINE PROFILE

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LONE PINE RESERVOIR ENLARGEMENT

CENTERLINE PROFILE

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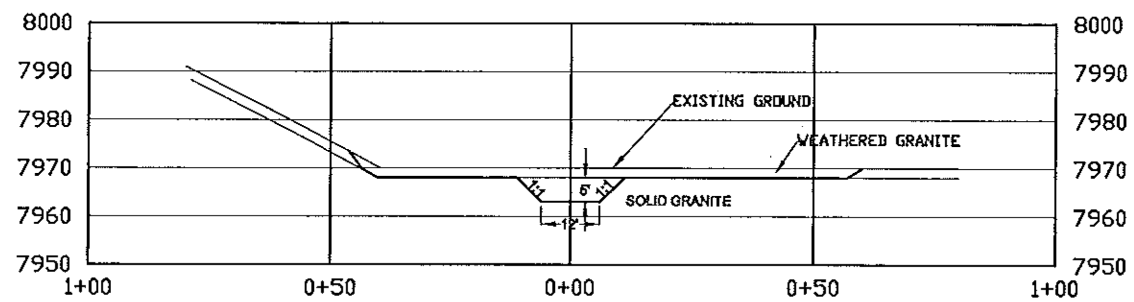
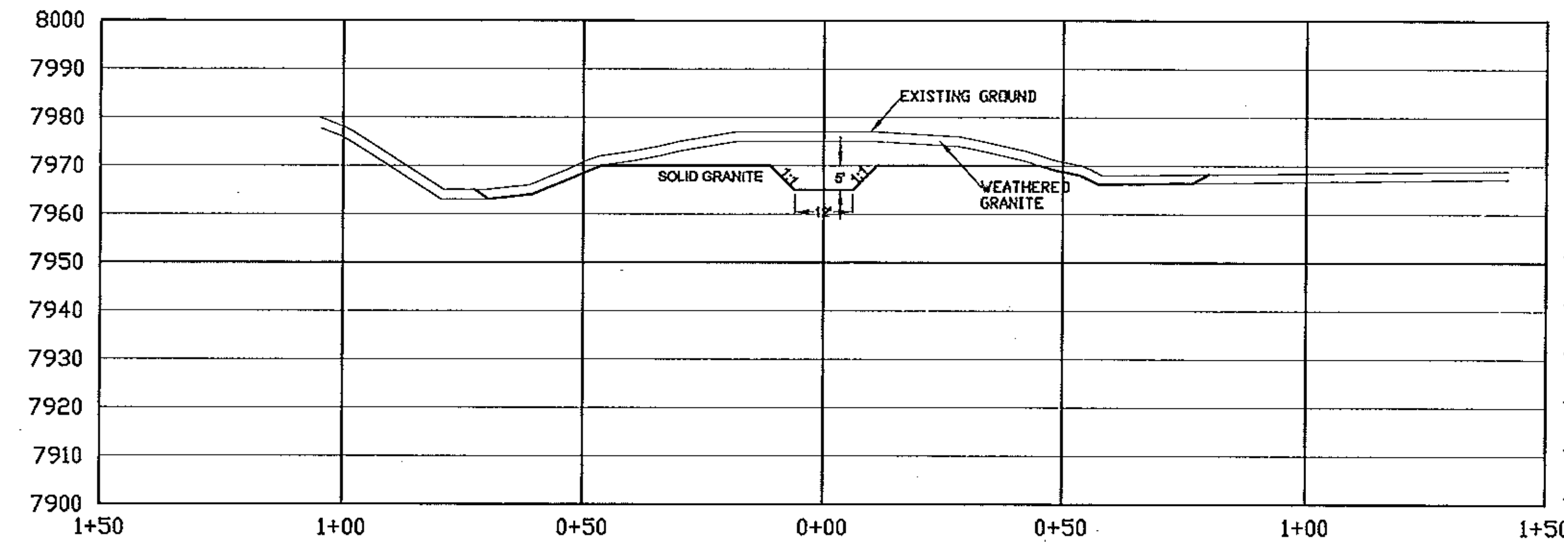
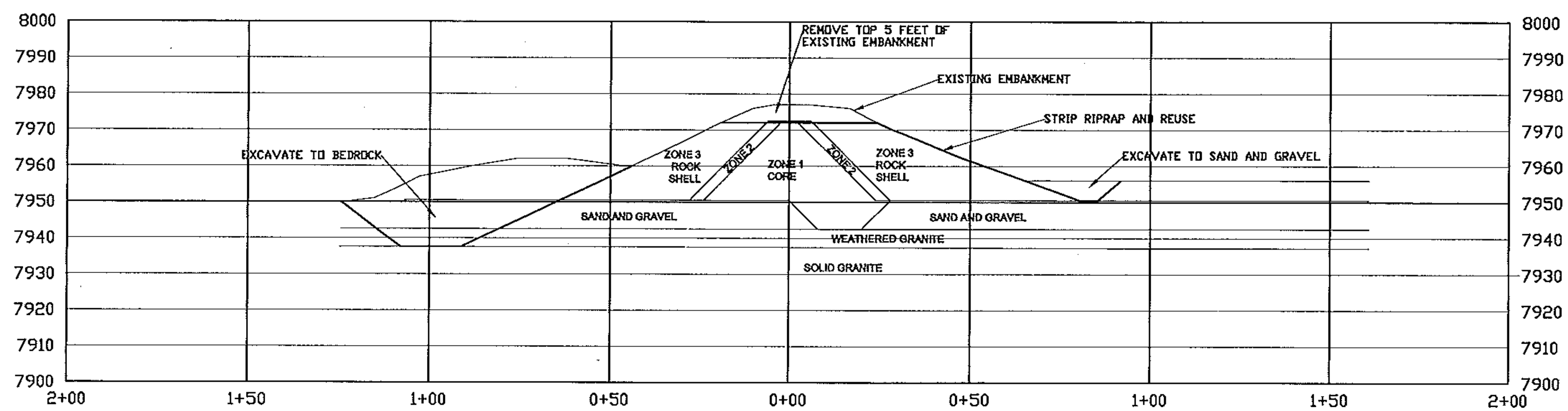


STATION 0+88



NOTE: EXCAVATE TO EXTENTS SHOWN TO SOLID GRANITE BEDROCK.
ALL EXCAVATED MATERIAL TO BE STOCKPILED FOR FUTURE USE.
IF SUITABLE WEATHERED GRANITE MAY BE USED AS RIPRAP.

STATION 1+15



STATION 1+75

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

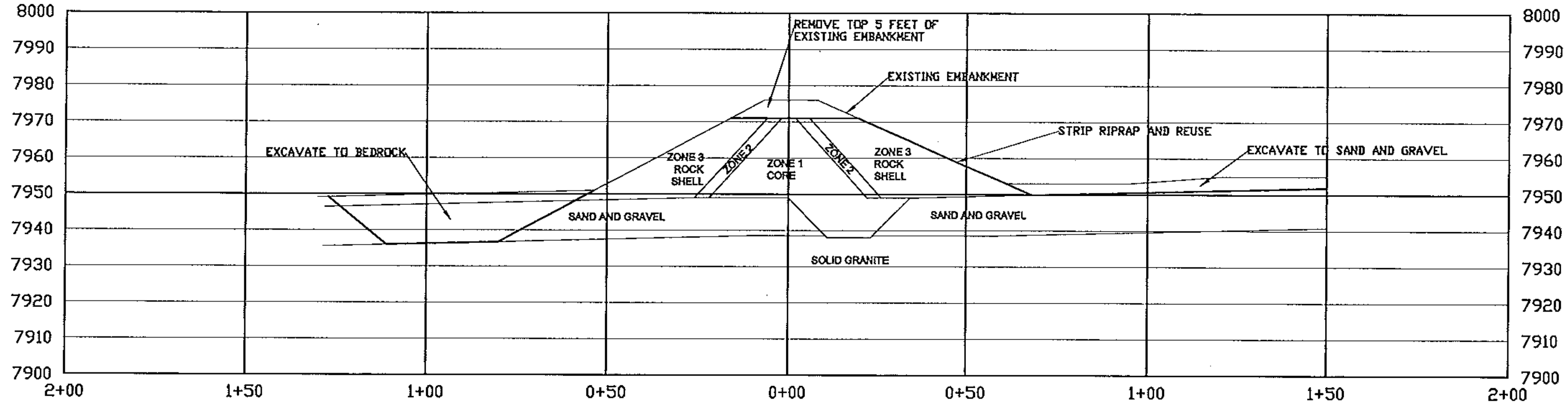
WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

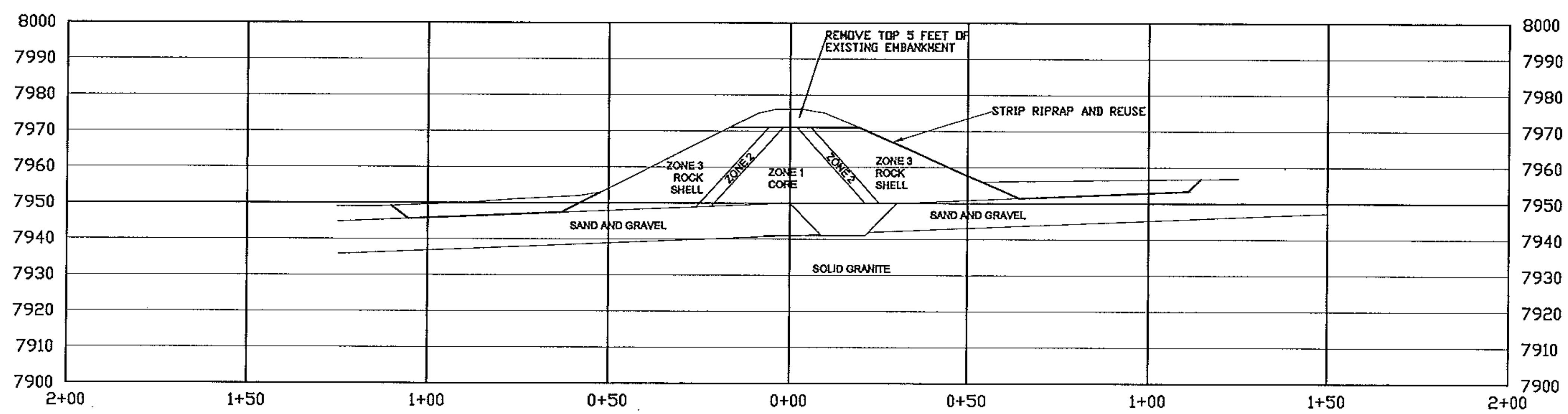
EXCAVATION SCTIONS

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 7
SHEET 7 OF 21



STATION 2+38

NOTE: EXCAVATE TO EXTENTS SHOWN TO SOLID GRANITE BEDROCK.
ALL EXCAVATED MATERIAL TO BE STOCKPILED FOR FUTURE USE.
IF SUITABLE WEATHERED GRANITE MAY BE USED AS RIPRAP.



STATION 2+98

FILE NAME: Basefull.dwg | OPERATOR: NLW | PROJECT NO: 576 | LOCATION: LOWER LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE
PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO: 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7848

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING
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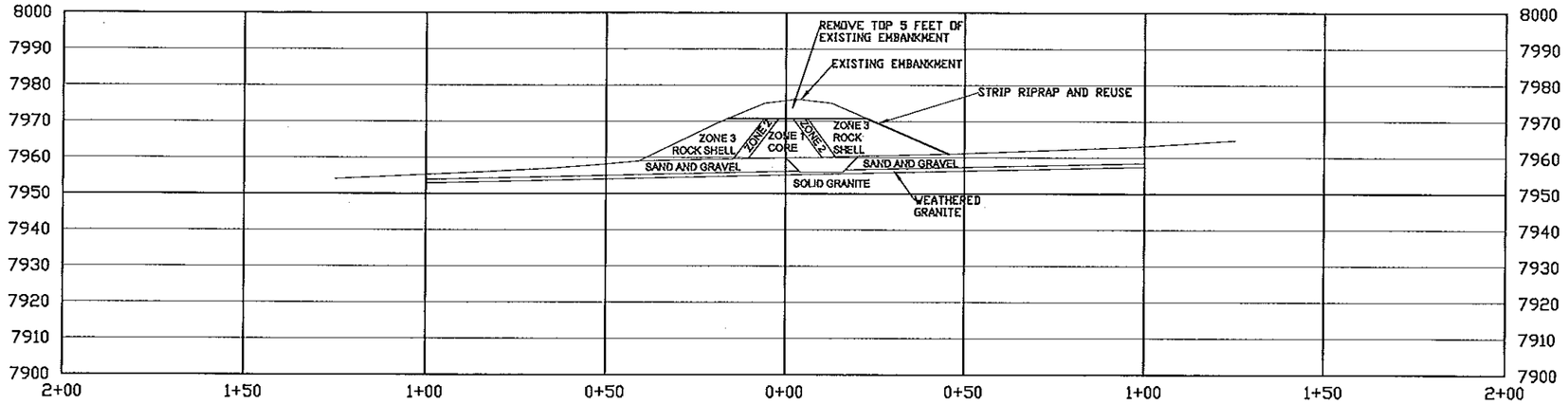
DESIGNED VEA
DRAWN NLW
CHECKED VEA
PEER REVIEWED
PROJECT MANAGER VEA
DATE MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

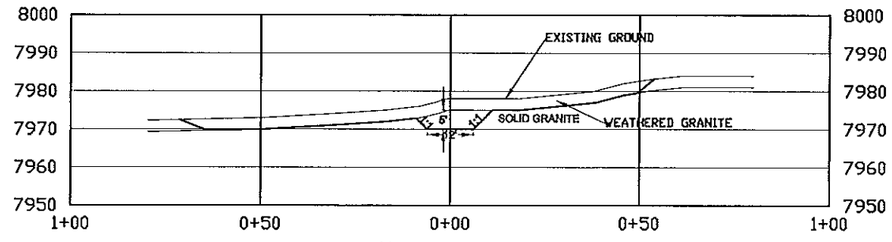
EXCAVATION SECTIONS

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 8
SHEET 8 OF 21



STATION 3+44

NOTE: EXCAVATE TO EXTENTS SHOWN TO SOLID GRANITE BEDROCK.
ALL EXCAVATED MATERIAL TO BE STOCKPILED FOR FUTURE USE.
IF SUITABLE WEATHERED GRANITE MAY BE USED AS RIPRAP.



STATION 4+10

FILE NAME: BrownfullAlm | OPERATOR: NLW | DATE: MAR 2010 | PROJECT NO: 576 | TASK NO: 145 | LOCATION: LOWER LONE PINE RESERVOIR | PROJECT: LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE | PHONE: (307) 634-7845

PLOT SCALE: 1/2

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING
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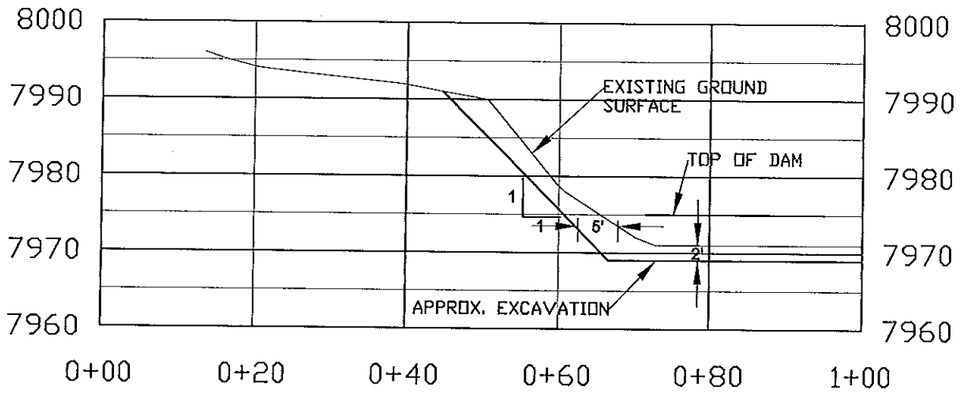
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

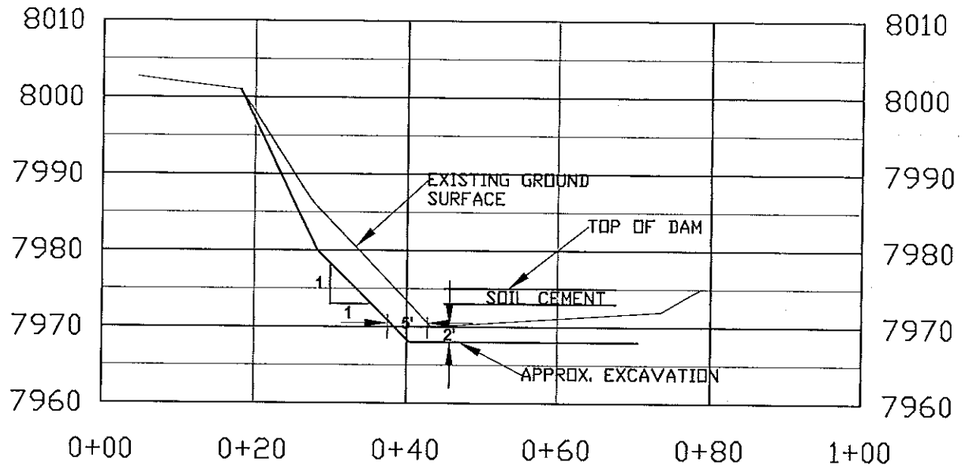
LONE PINE RESERVOIR ENLARGEMENT

EXCAVATION SECTIONS

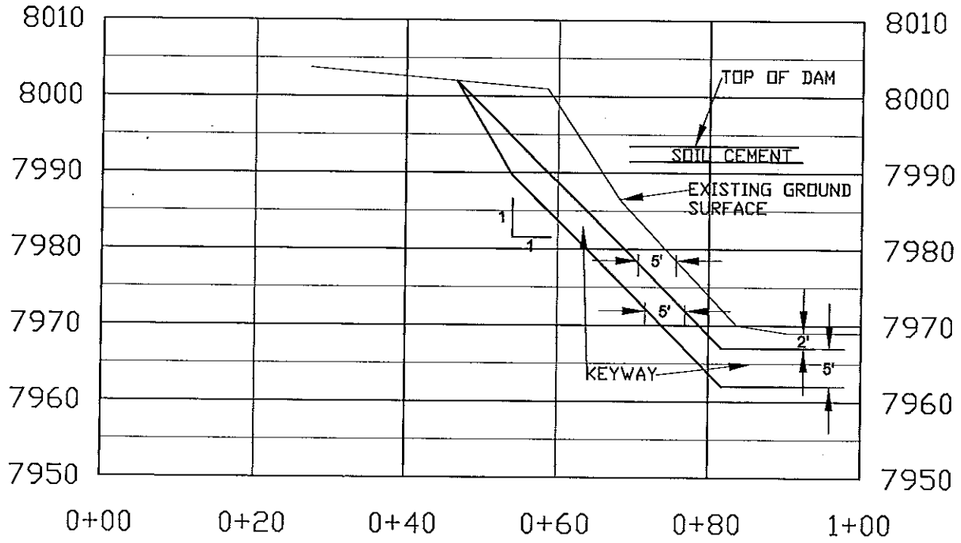
REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 9
SHEET 9 OF 21



AA' ABUTMENT SECTION



BB' ABUTMENT SECTION



℄ ABUTMENT SECTION

FILE NAME: Boxerfill.dwg | OPERATOR: NLW | PROJECT NO. 576 | LOCATION: LOWER LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE
PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO.: 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7948

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7948
FAX: (307) 634-7851

WARNING
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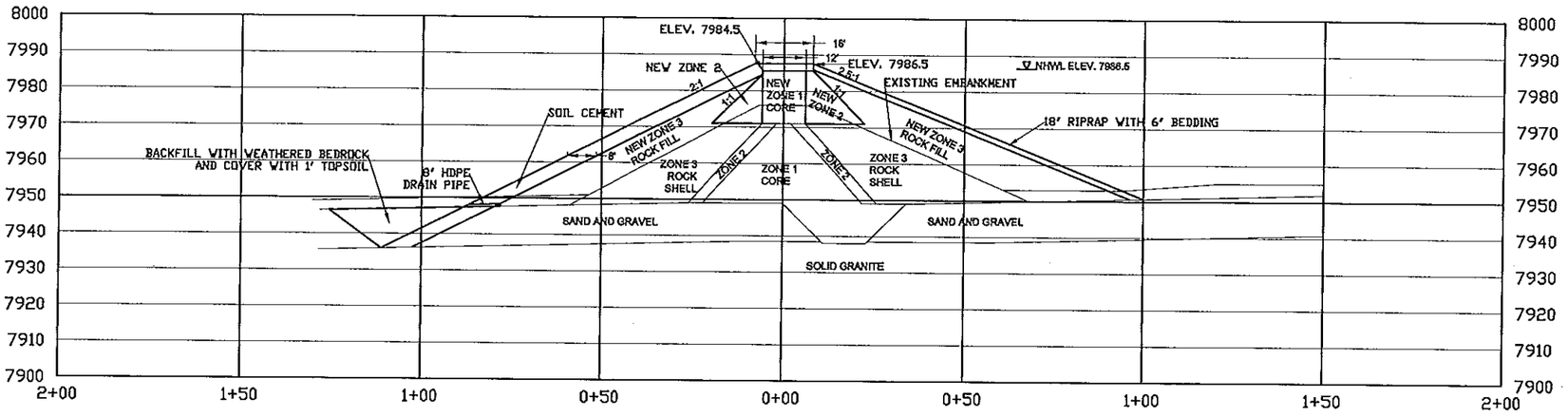
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

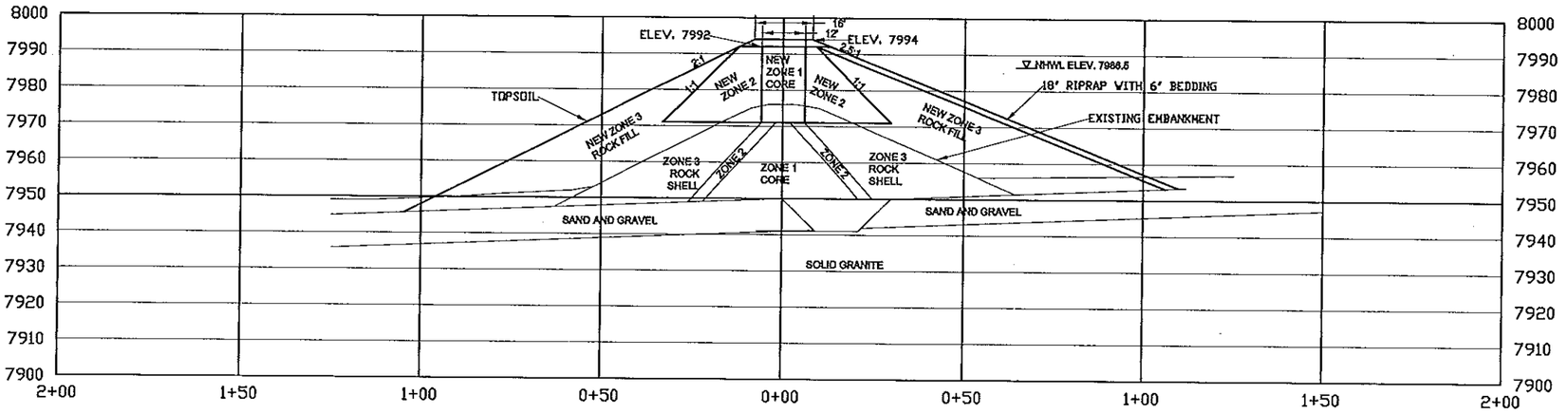
LONE PINE RESERVOIR ENLARGEMENT

ABUTMENT EXCAVATION SECTIONS

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 10
SHEET 10 OF 21



STATION 2+38



STATION 2+98

FILE NAME: BorrowFull.dwg | OPERATOR: NLW | PROJECT NO: 576 | LOCATION: LOWER LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE
PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO: 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7848

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

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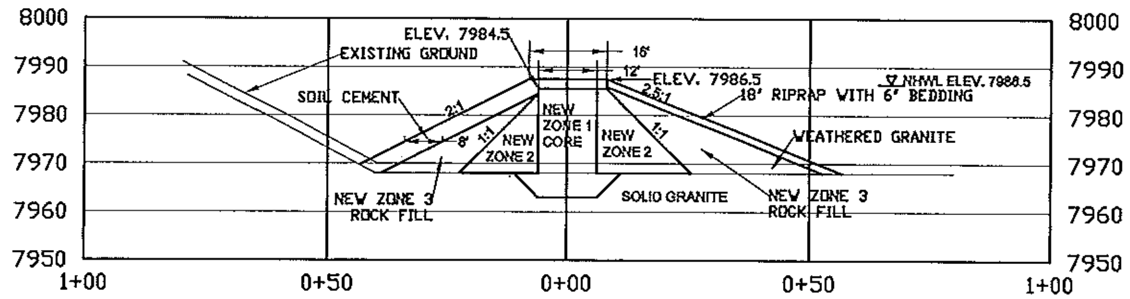
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

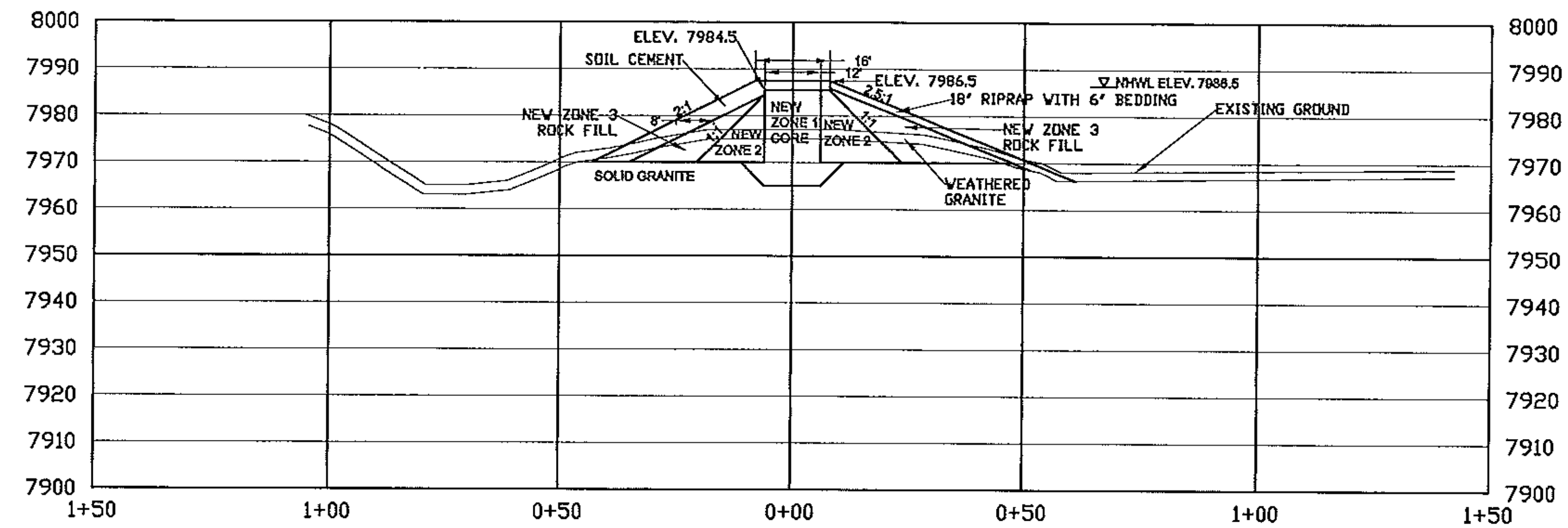
LONE PINE RESERVOIR ENLARGEMENT

DAM CROSS SECTIONS

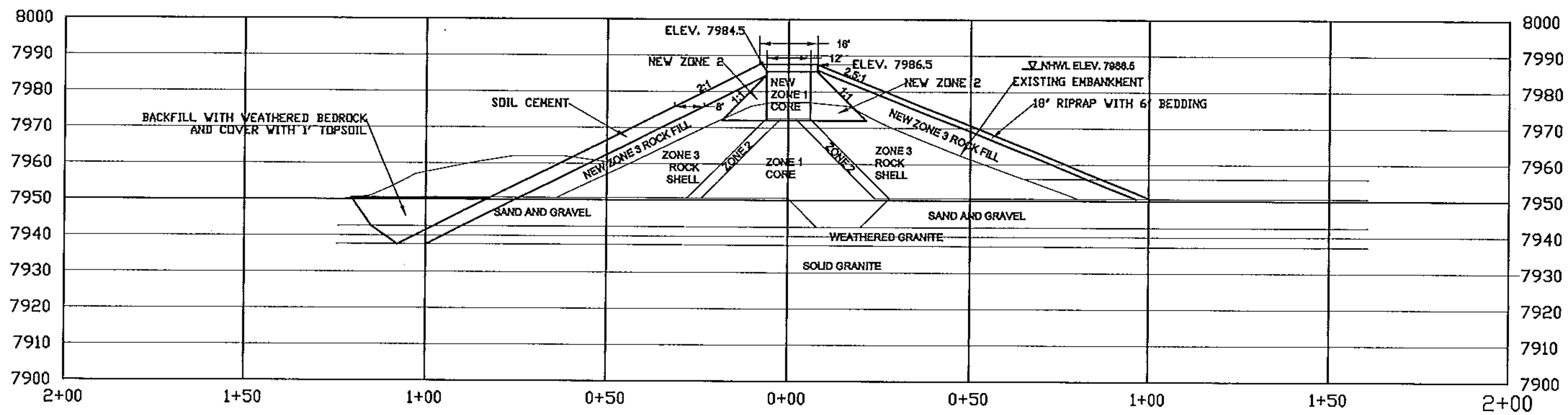
REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 12



STATION 0+88



STATION 1+15



STATION 1+75

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING

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DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

DAM CROSS SECTIONS

REVISION 1

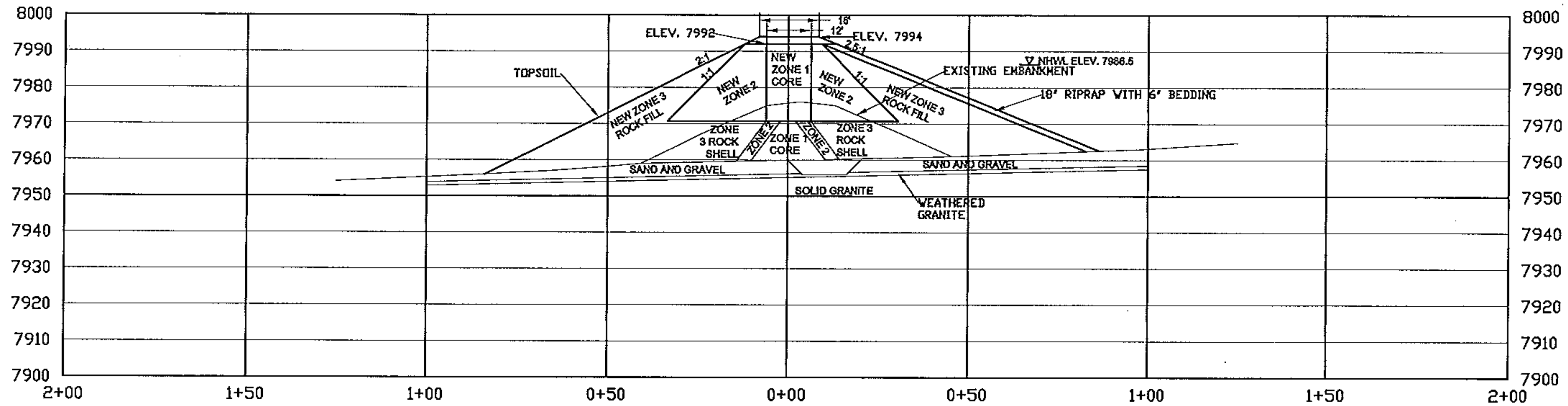
PROJECT 576

STATE ENGINEER'S FILE NO.

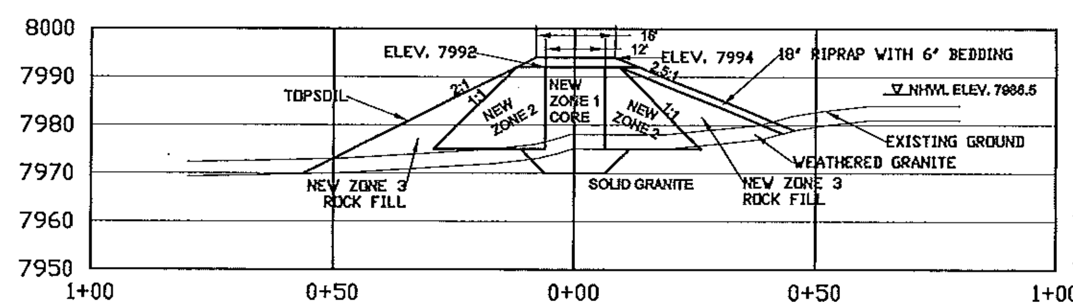
DRAWING 11

SHEET 11 OF 21

FILE NAME: Base(full).dwg | PLOT SCALE: 1:2 | OPERATOR: NLW | DATE: MAR 2010 | PROJECT NO: 576 | TASK NO: 145 | LOCATION: LOWER LONE PINE RESERVOIR | PROJECT: LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE | PHONE: (307) 634-7848



STATION 3+44



STATION 4+10

FILE NAME: Damsecfull.dwg | PLOT SCALE: 1/2 | OPERATOR: NLW | DATE: MAR 2010 | PROJECT NO: 576 | TASK NO: 145 | LOCATION: LOWER LONE PINE RESERVOIR | PROJECT: LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE | PHONE: (307) 634-7848

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING

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DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

DAM CROSS SECTIONS

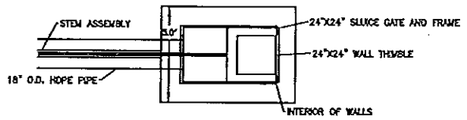
REVISION 1

PROJECT 576

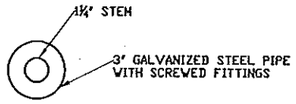
STATE ENGINEER'S FILE NO.

DRAWING 13

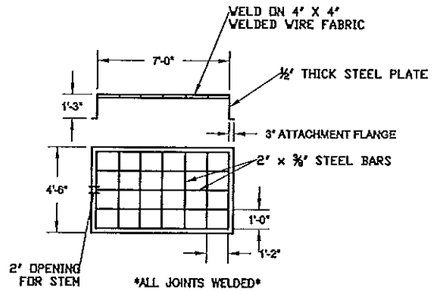
SHEET 13 OF 21



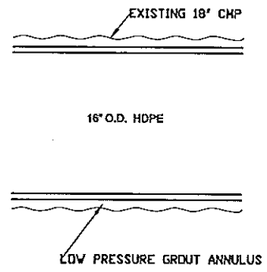
INTAKE STRUCTURE PLAN
NO SCALE



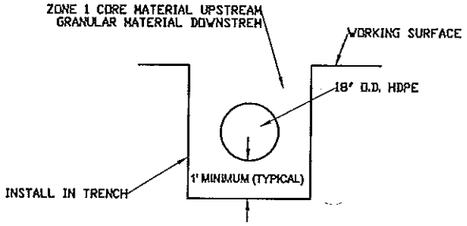
STEM ASSEMBLY
NO SCALE



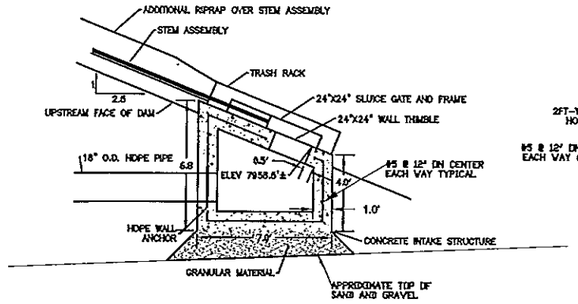
TRASH RACK
NO SCALE



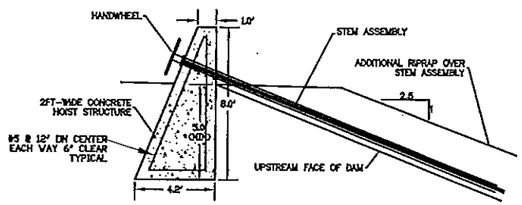
PIPE THRU CMP
NO SCALE



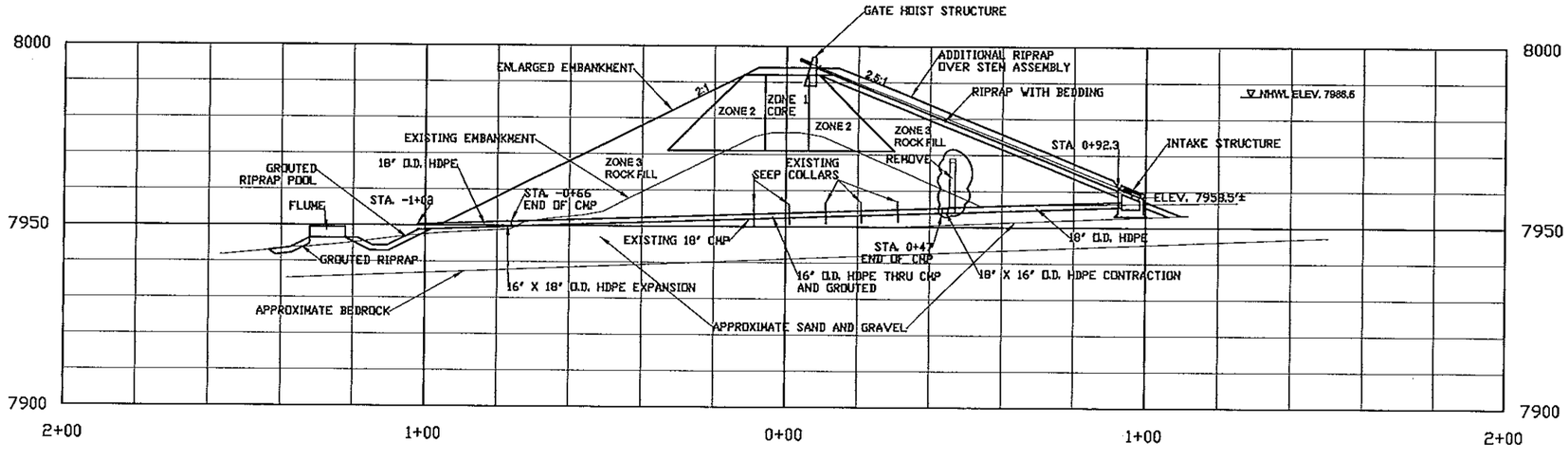
OUTLET WORKS PIPE INSTALLATION DETAIL
NO SCALE



INTAKE STRUCTURE PROFILE
NO SCALE



GATE HOIST STRUCTURE
NO SCALE



OUTLET WORKS PROFILE

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING
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DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

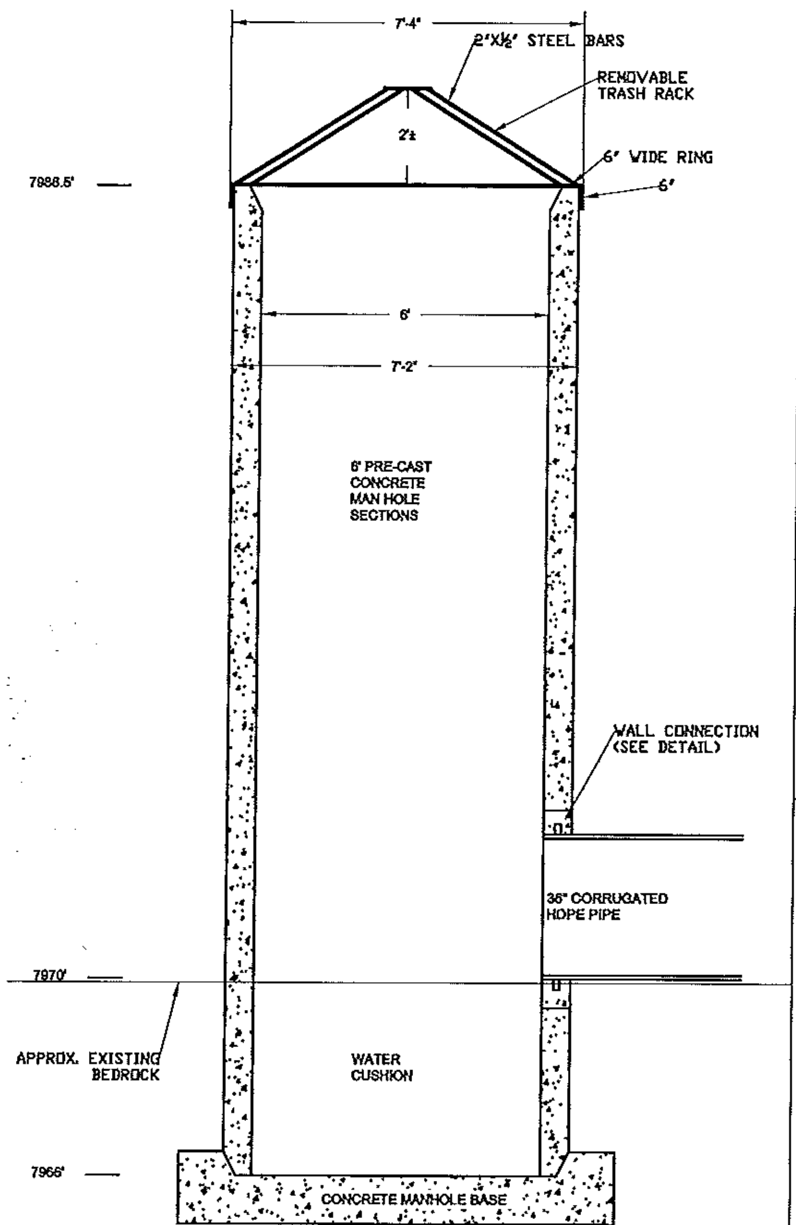
LONE PINE RESERVOIR ENLARGEMENT

OUTLET WORKS

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 14
SHEET 14 OF 21

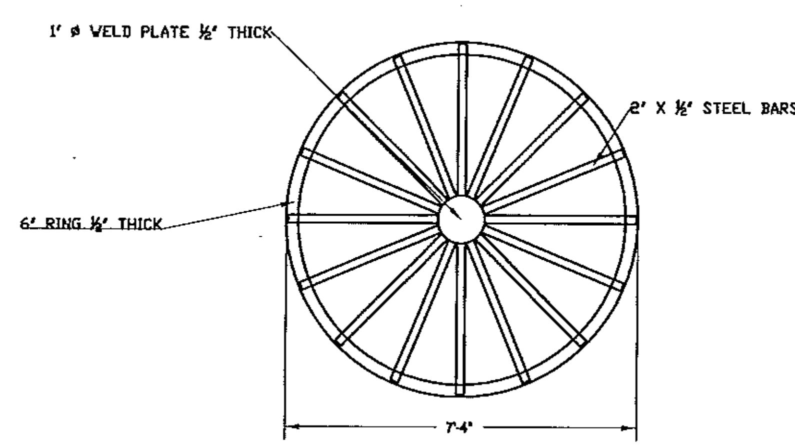
FILE NAME: Bomfuf.dwg | OPERATOR: NLW | PROJECT NO. 576 | LOCATION: LOWER LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE
PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO: 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7848

ALL CONNECTIONS WELDED



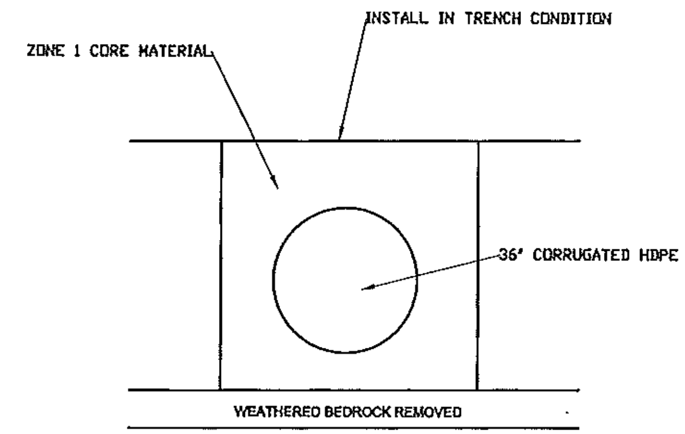
OVERFLOW STRUCTURE

NO SCALE



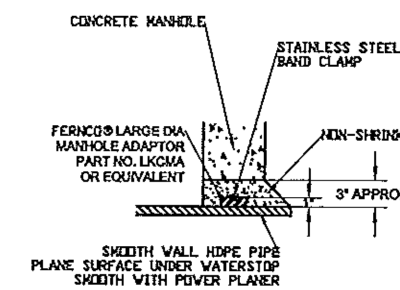
TRASH RACK PLAN

NO SCALE



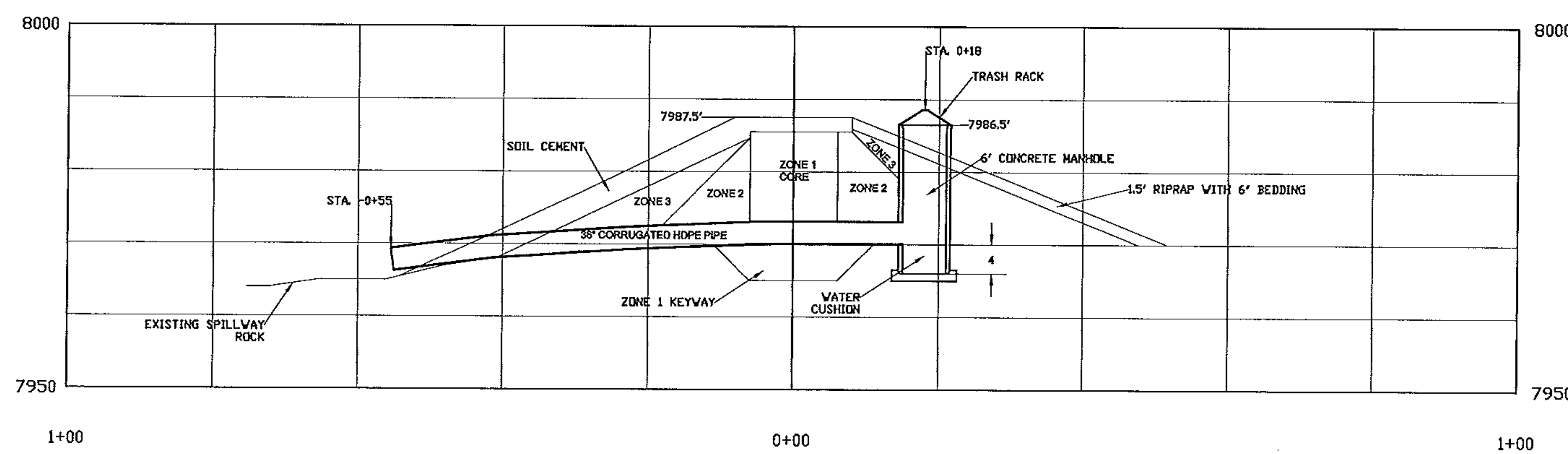
PIPE INSTALLATION DETAIL

NO SCALE



CONNECTION OF HDPE PIPE TO CONCRETE MANHOLES

NO SCALE



PROFILE ALONG OVERFLOW ℄

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION

1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING

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DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

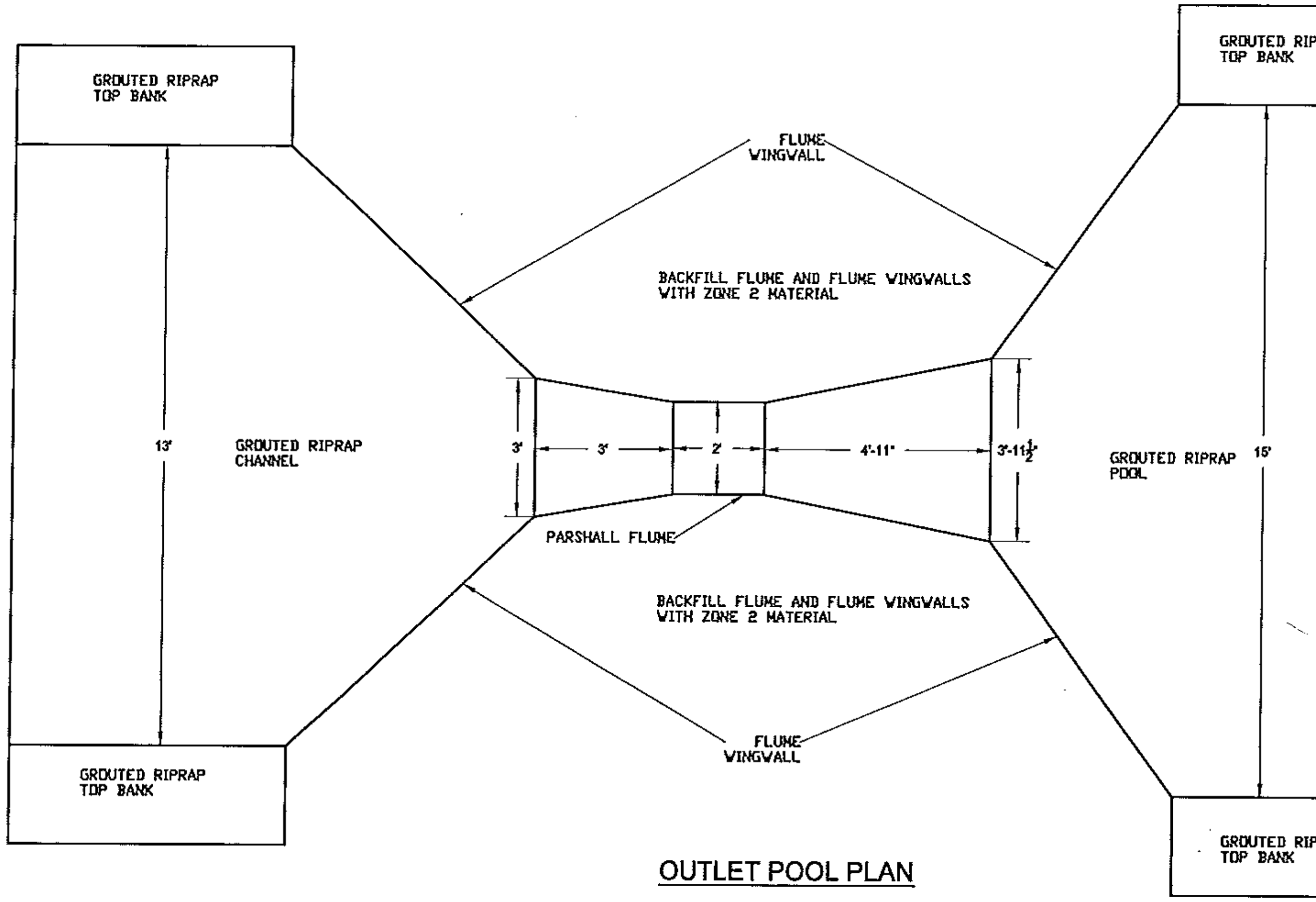
LONE PINE RESERVOIR ENLARGEMENT

RESERVOIR OVERFLOW

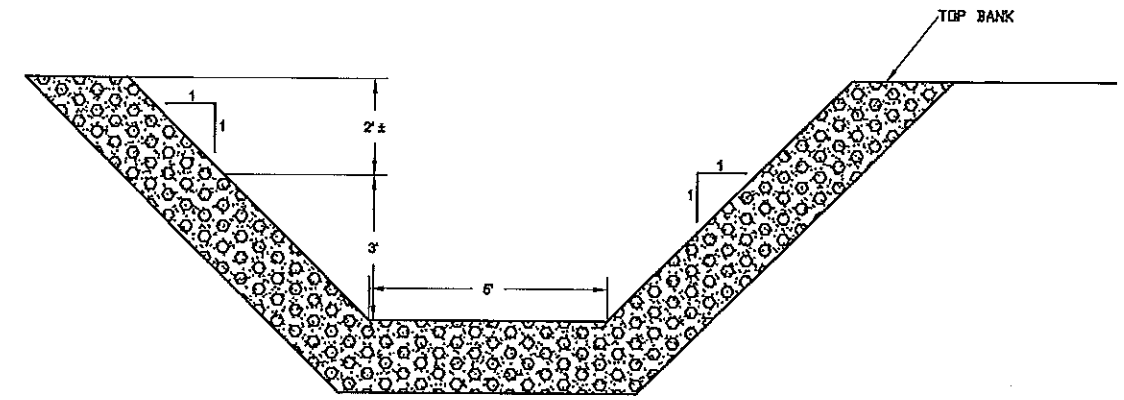
REVISION	1
PROJECT	576
STATE ENGINEER'S FILE NO.	
DRAWING	16

SHEET 16 OF 21

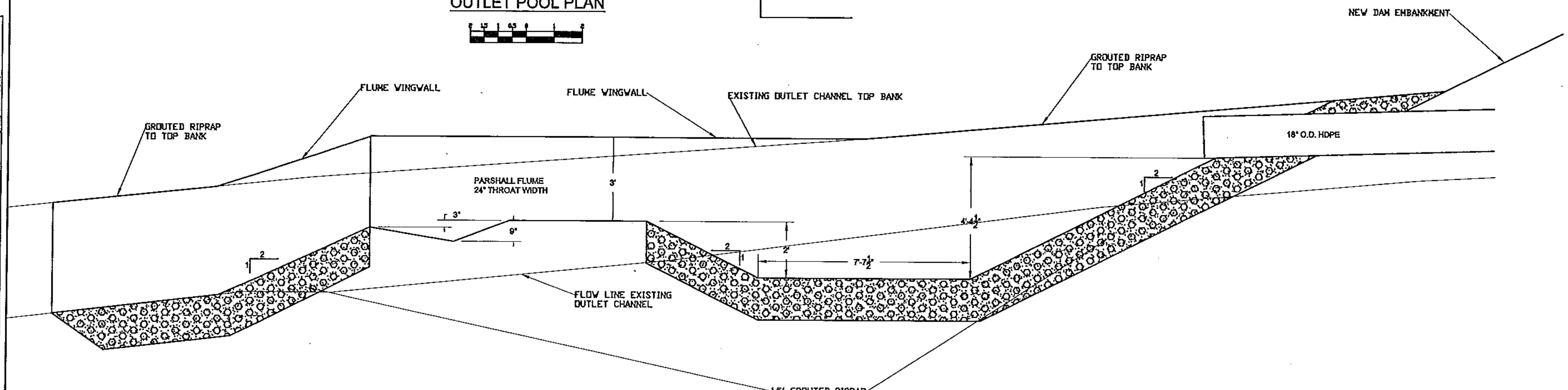
FILE NAME: Benefull.dwg | PLOT SCALE: 1:2 | OPERATOR: NLW | DATE: MAR 2010 | PROJECT NO: 576 | TASK NO: 145 | LOCATION: LOWER LONE PINE RESERVOIR | PROJECT: LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE | PHONE: (307) 634-7848



OUTLET POOL PLAN



TYPICAL CROSS SECTION



OUTLET POOL PROFILE

FILE NAME: Basefile(Ldwg) | OPERATOR: NLW | PROJECT NO. 576 | LOCATION: LOWER LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE
PLOT SCALE: 1:2 | DATE: MAR 2010 | TASK NO. 145 | PROJECT: LONE PINE RESERVOIR | PHONE: (307) 634-7848

REV	DESCRIPTION OF REVISION	BY	DATE
△			
△			
△			
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△			
△1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

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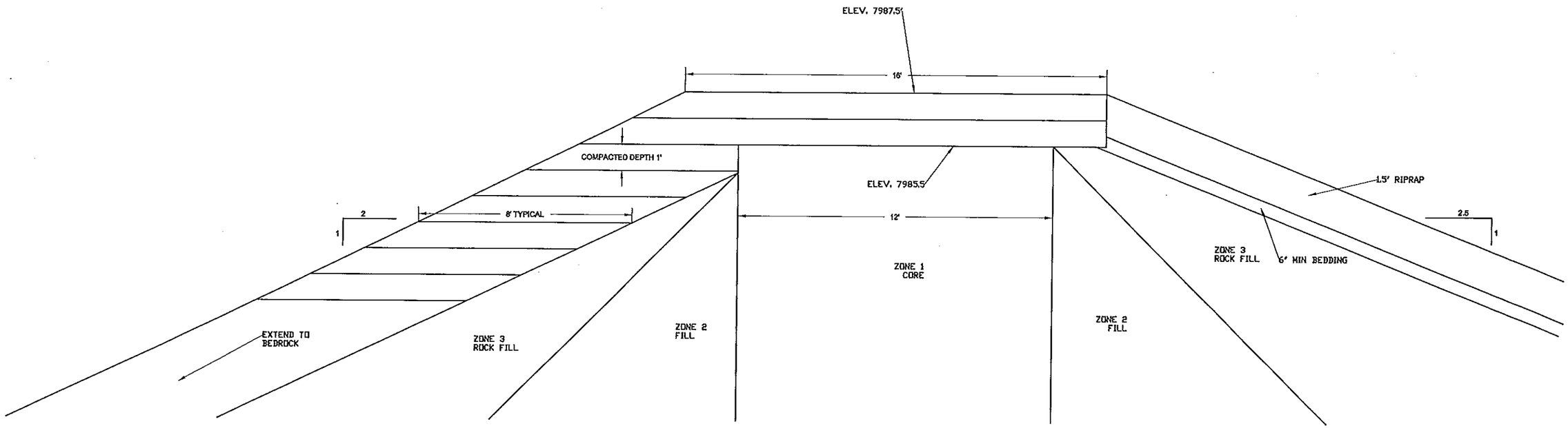
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

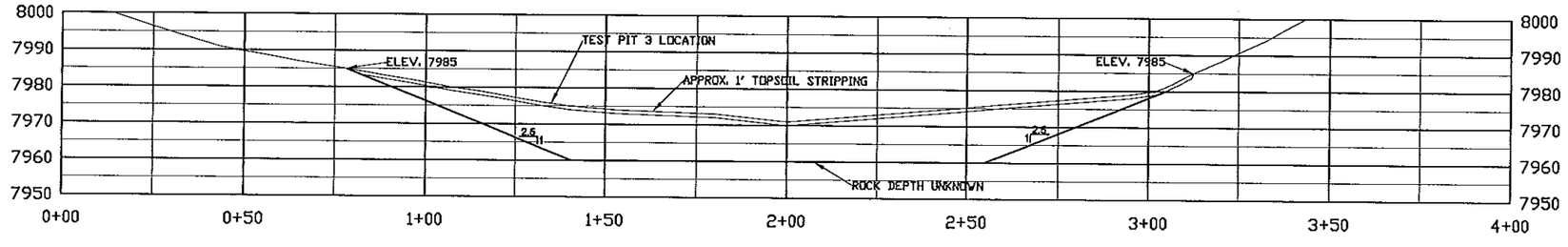
LONE PINE RESERVOIR ENLARGEMENT

OUTLET POOL

REVISION △1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 15
SHEET 15 OF 21



OVERFLOW SECTION DETAIL



TYPICAL BORROW SECTION

REFER TO PLAN

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

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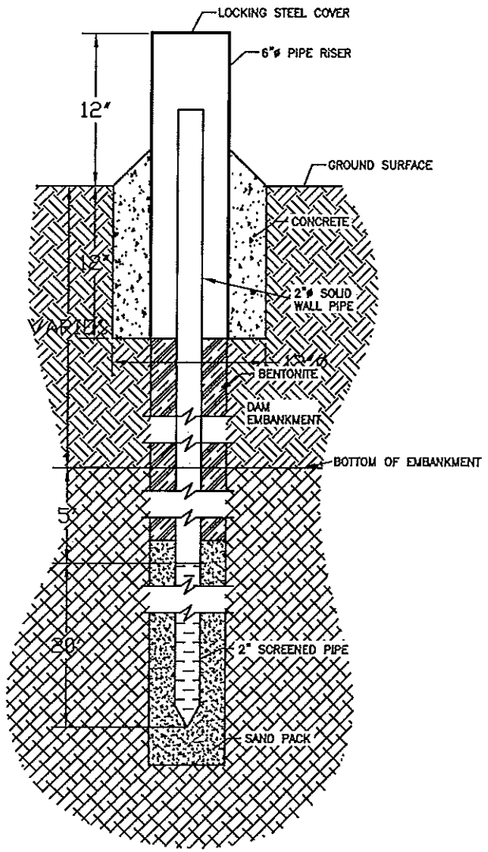
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

OVERFLOW DETAIL & TYPICAL BORROW SECTION

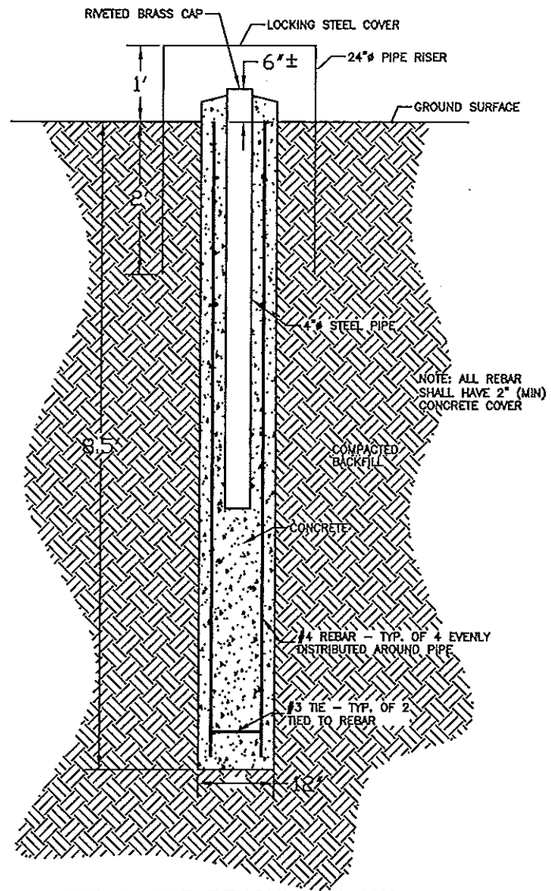
REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 17
SHEET 17 OF 21

FILE NAME: Borrowfull.dwg
PLOT SCALE: 1:2
OPERATOR: NLW
DATE: MAR 2010
PROJECT NO: 576
TASK NO: 143
LOCATION: LOWER LONE PINE RESERVOIR
PROJECT: LONE PINE RESERVOIR
SEND TO: VICTOR E. ANDERSON, PE
PHONE: (307) 634-7848



PIEZOMETER DETAIL

NO SCALE



PERMANENT BENCHMARK AND DISPLACEMENT MONUMENT DETAIL

NO SCALE

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

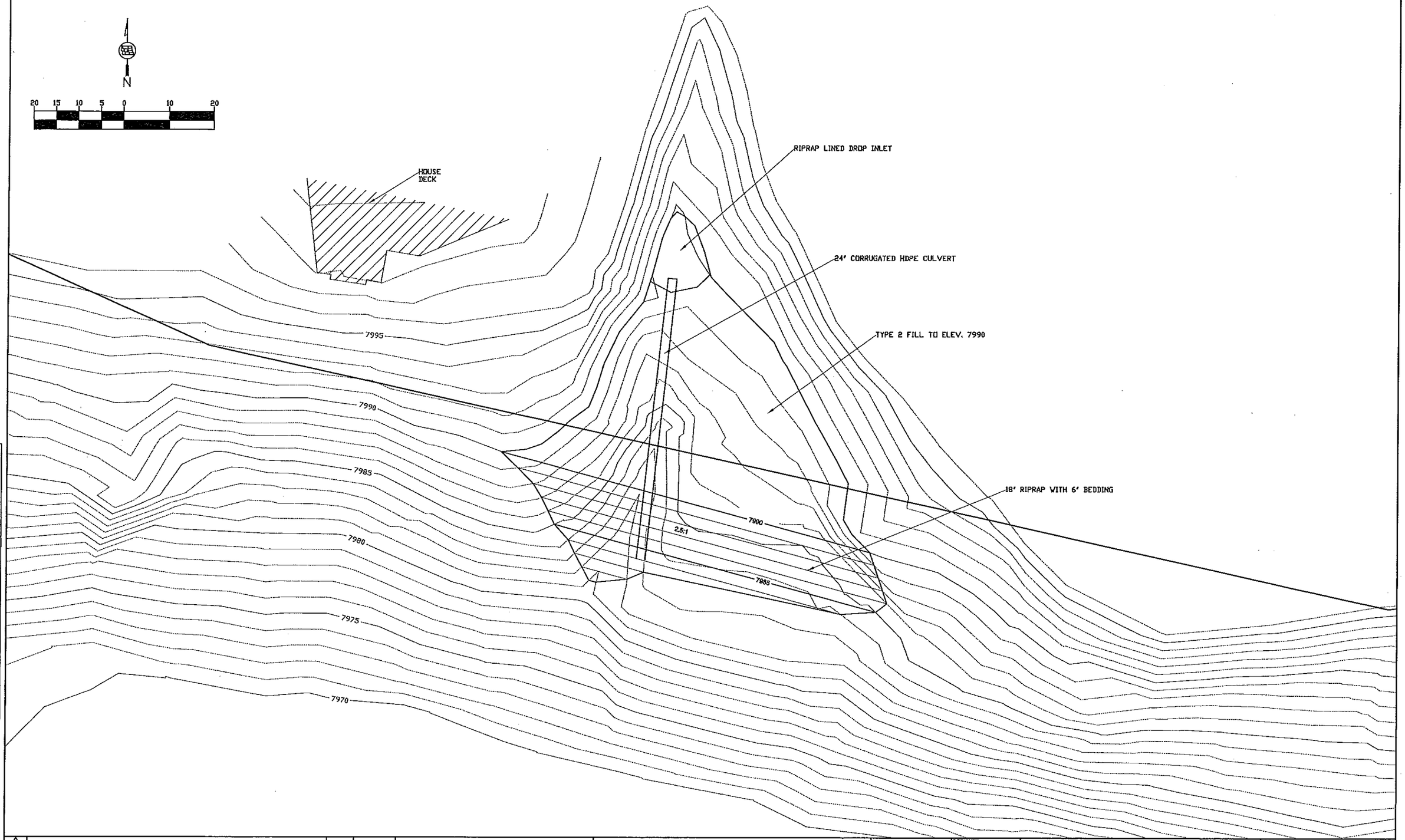
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

INSTRUMENTATION DETAILS

REVISION	1
PROJECT	576
STATE ENGINEER'S FILE NO.	
DRAWING	18
SHEET	18 OF 21

FILE NAME: Sheet18.dwg | OPERATOR: NLW | DATE: MAR 2010 | PROJECT NO: 576 | TASK NO: 145 | LOCATION: LOWER LONE PINE RESERVOIR | PROJECT: LONE PINE RESERVOIR | SEND TO: VICTOR E. ANDERSON, PE | PHONE: (307) 634-7848 | PLOT SCALE: 1/2



FILE NAME: BowerHill.dwg
PLOT SCALE: 1/2
OPERATOR: NLW
DATES: MAR 2010
PROJECT NO. 576
TASK NO: 145
LOCATION: LOWER LONE PINE RESERVOIR
PROJECT: LONE PINE RESERVOIR
SEND TO: VICTOR E. ANDERSON, PE
PHONE: (307) 634-7848

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING
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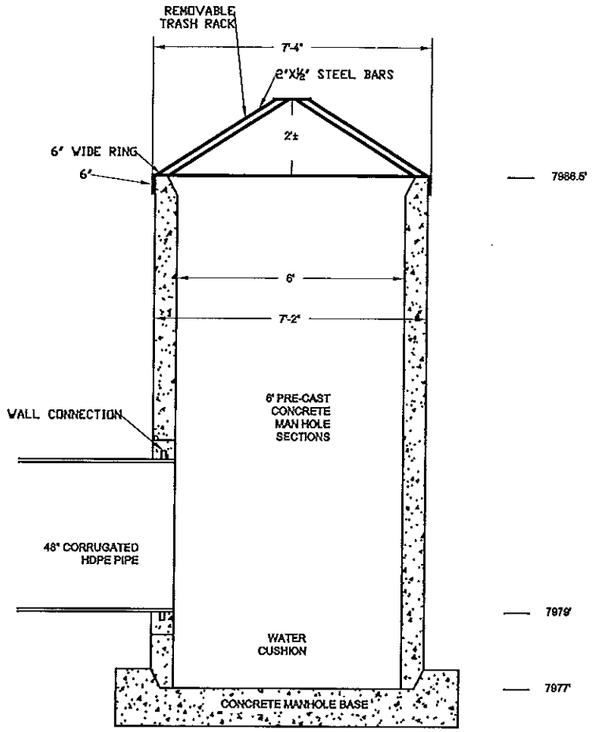
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

ADDITIONAL SITE WORK

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 19
SHEET 19 OF 21



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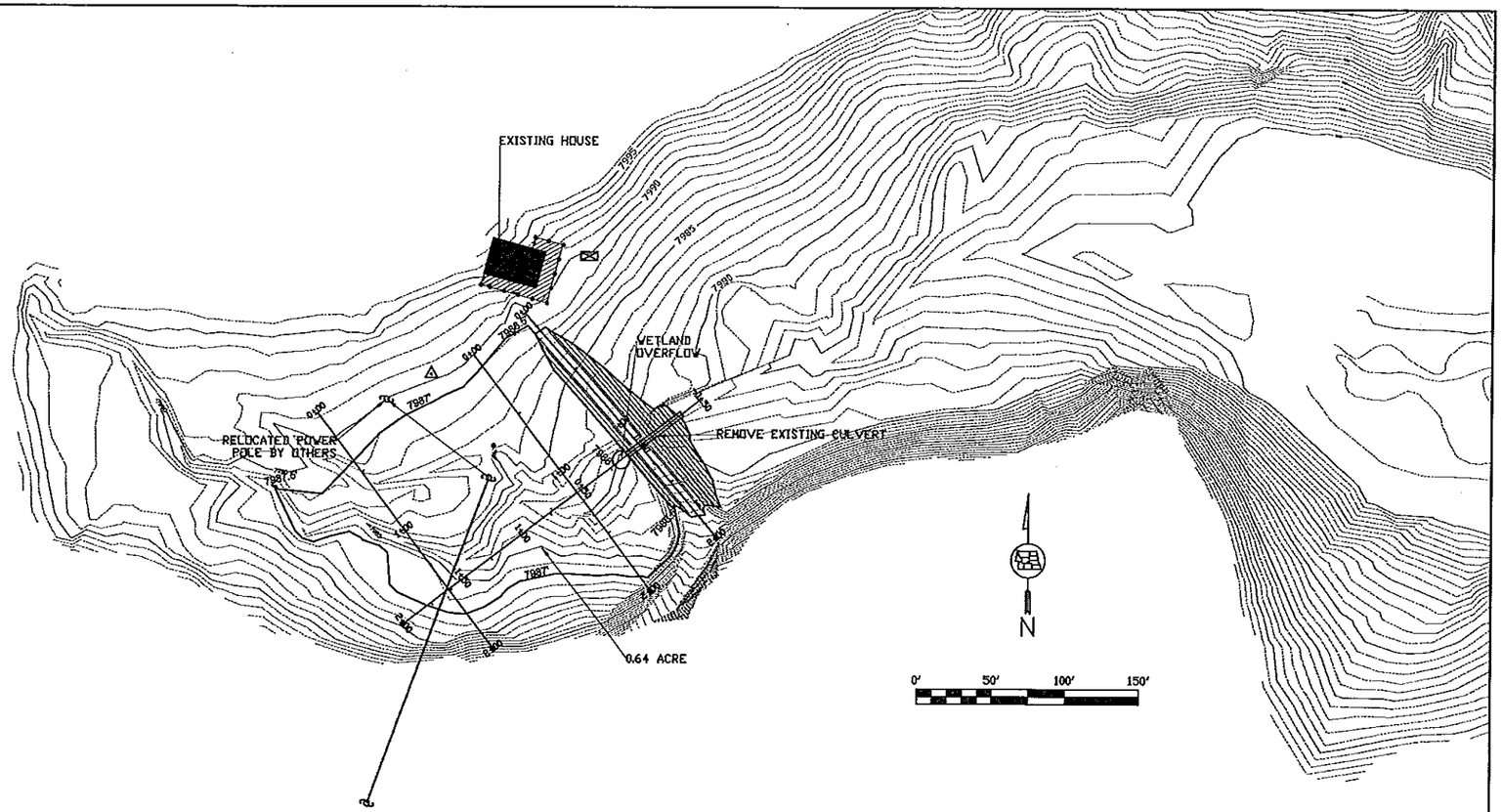

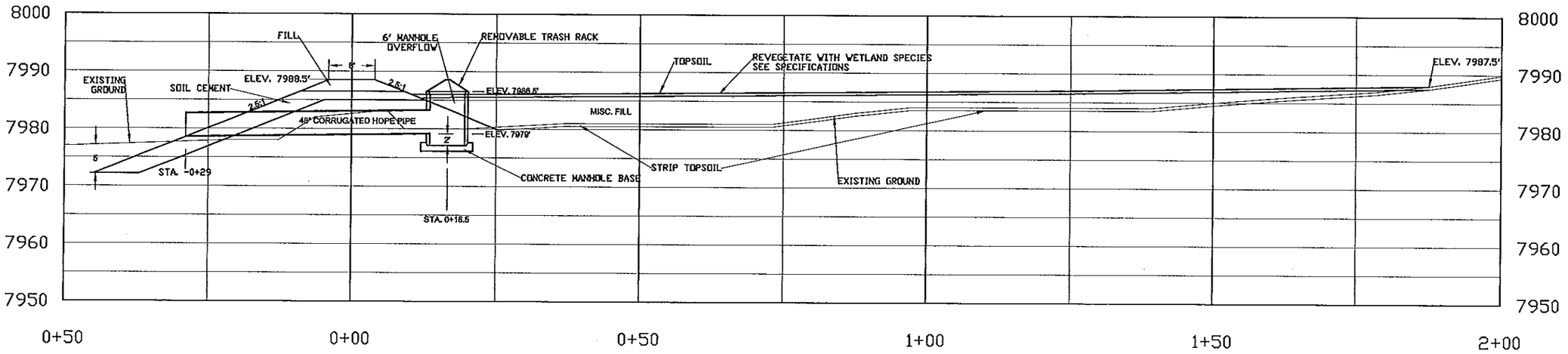

WETLAND PROFILE

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING

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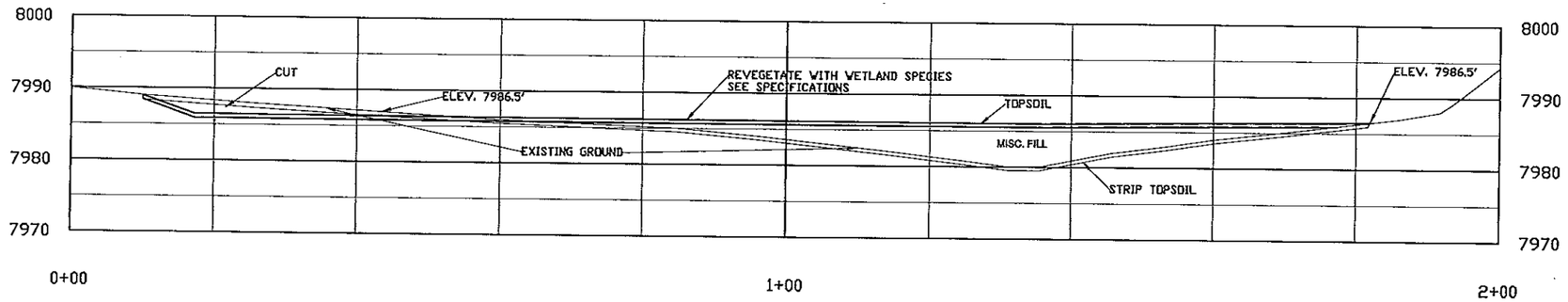
DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

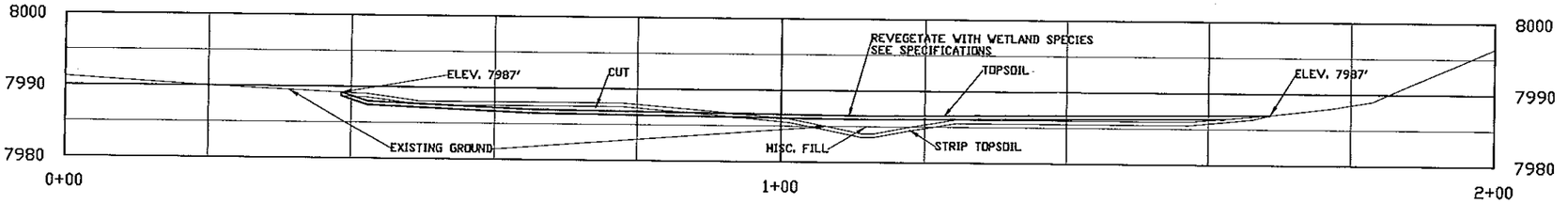
WETLAND MITIGATION PLAN

REVISION	1
PROJECT	576
STATE ENGINEER'S FILE NO.	
DRAWING	20
SHEET	20 OF 21

FILE NAME: Bmpfull.dwg OPERATOR: NLW DATE: MAR 2010 PLOT SCALE: 1=2 PROJECT NO: 576 BOOK NO: 145 LOCATION: LOWER LONE PINE RESERVOIR PROJECT: LONE PINE RESERVOIR SEND TO: VICTOR E. ANDERSON, PE PHONE: (307) 634-7848



WETLANDS PROFILE STA. 0+53



WETLANDS PROFILE STA. 1+60

FILE NAME: Brdefult.dwg | OPERATOR: NLW | PROJECT NO.: 576
PLOT SCALE: 1/2 | DATE: MAR 2010 | TASK NO.: 145
LOCATION: LOWER LONE PINE RESERVOIR
PROJECT: LONE PINE RESERVOIR
SEND TO: VICTOR E. ANDERSON, P.E.
PHONE: (307) 634-7948

REV	DESCRIPTION OF REVISION	BY	DATE
1	PRELIMINARY DESIGN	NLW	03-2010

STATES WEST WATER RESOURCES CORPORATION
1904 E. 15th STREET
CHEYENNE, WYOMING 82001
(307) 634-7848
FAX: (307) 634-7851

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED	VEA
DRAWN	NLW
CHECKED	VEA
PEER REVIEWED	
PROJECT MANAGER	VEA
DATE	MARCH 2010

LONE PINE RESERVOIR ENLARGEMENT

WETLAND MITIGATION PLAN

REVISION 1
PROJECT 576
STATE ENGINEER'S FILE NO.
DRAWING 21
SHEET 21 OF 21

Appendix E

Permits

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 SOUTH WADSWORTH BLVD
LITTLETON, CO 80128-6901

RECEIVED NOV 2 0 2010

November 18, 2010

Mr. Steve Koeckeritz
Crystal Lakes Water and Sewer Association
300 Tami Road
Red Feathers Lakes, CO 80545

Re: Department of the Army Permit No. NWO-2010-307-DEN
Lower Lone Pine Reservoir Expansion

Dear Mr. Koeckeritz:

Enclosed is the Department of the Army Permit No. 200380495 for the excavation and placement fill material into North Fork Line Pine Creek and associated wetlands to enlarge Lower Lone Pine Reserovoir. The project area is located in the Section 7, Township 10 North, Range 73 West, within the community of Crystal Lakes, Larimer County, Colorado.

General Condition No. 1 of the permit establishes the time limit for completing the work. It reflects a construction period of 2 years from the end of the month of the date of issuance of the permit, **expiring September 30, 2012.**

The Omaha District, Denver Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at http://per2.nwp.usace.army.mil/survey.html. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

Please notify Matt Montgomery at (303) 979-4120, or the above address, when work on this project is begun and also when completed. He may also be called if you have any questions concerning the permit. When communicating with our office regarding this project please reference File No. 200380495.

Sincerely,

Timothy T. Carey
Chief, Denver Regulatory Office

Enclosures

DEPARTMENT OF THE ARMY
SECTION 404 PERMIT

Permittee: Crystal Lakes Water and Sewer Association
Permit No: 200380495
Issuing Office: Corps of Engineers, Omaha District, Denver Regulatory Office (303-979-4120)
Project: Lower Lone Pine Reservoir Expansion
Location: Section 7, Township 10 North, Range 73 West in Larimer County, Colorado
Waterway: North Fork Lone Pine Creek and associated wetlands

Contents:

1. GENERAL INFORMATION, SIGNATURE BLOCKS

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer. You are authorized to perform work in accordance with the terms and conditions specified below.

1. **Congressional Authorities**: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(**X**) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. **Limits of this authorization.**

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Steven M. Koerkenty, President, CLWSA — 11/14/10

Permittee — Date

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Robert J. Ruch — 11/16/10

Colonel, Corps of Engineers — Date

District Commander

BY: _____

Timothy T. Carey

Chief, Denver Regulatory Office

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

Transferee Signature — Date

Transferee (Print or Type) — Title

Organization or Company (Print or Type)

Address (Print or Type) — Phone

2.3. Description of Work.

The proposed project would consist of enlarging the existing Lower Lone Pine Reservoir to a total of 100.5 acre-feet. The existing dam crest height would be raised approximately 10 feet. The surface acreage of the existing reservoir would expand from 2 surface acres to approximately 6.4 surface acres. Approximately 50,000 cubic yards of fill material would be used to enlarge the existing dam.

2.4. Impacts and Mitigation.

The project is expected to permanently impact approximately 0.602 acre of scrub/shrub wetlands. Of this total, 0.097 acre of wetland would be directly impacted by fill from the enlargement of the dam, and 0.505 acre would be impacted as a result of inundation. Project impacts will be mitigated at a 1:1 ratio, on-site and in-kind. Mitigation will occur by creating an in-kind scrub/shrub wetland on the upstream portion of the reservoir.

4. SPECIAL CONDITIONS

A. The permittee agrees that all reports or correspondence required under these special conditions shall include the following information:

Project: Lower Lone Pine Reservoir Expansion
Corps Permit No: 200380495
Permittee: Crystal Lakes Water and Sewer Association
Expiration Date: September 30, 2012

and shall be sent to:

US Army Corps of Engineers
Denver Regulatory Office
9307 S. Wadsworth Blvd.
Littleton, CO 80128-6901

B. The permittee agrees to construct the project and mitigation as shown on the attached drawings which are attached to, and made a part of, this permit.

C. The permittee agrees to follow the Section 401 Certification Requirements, that are attached to, and made part of, this permit.

D. The permittee agrees to contact the U. S. Fish and Wildlife Service, Office of Migratory Birds, at (303) 236-8171, for permitting requirements prior to the removal or destruction of any bird nest.

E. The permittee agrees that they are responsible for all work accomplished in accordance with the terms and conditions of this authorization. If a contractor or other authorized representative will be accomplishing the work hereby authorized in behalf of the permittee, such parties shall be provided a copy of this authorization so they are aware of the terms and conditions. An activity that fails to comply with the terms and conditions of this authorization will be considered unauthorized and all responsible parties will be subject to appropriate enforcement action.

F. Invasive Aquatic Species. If heavy equipment is used for the subject project that was previously working in another stream, river, lake, pond or wetland within 10 days of initiating work, one of the following procedures is necessary to prevent the spread of New Zealand Mud Snails and other aquatic hitchhikers: (1) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and keep the equipment dry for 10 days; or (2)Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with either a 1:1 solution of Formula 409 Household Cleaner and water, or a solution of Sparquat 256 (5 ounces Sparquat per gallon of water). Treated equipment must be kept moist for at least 10 minutes; or (3) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water greater than 120 degrees F for at least 10 minutes.

G. The permittee agrees to create 0.602 acre of scrub/shrub wetland commencing by, and completing before September 30, 2012. The permittee shall hire a professional ecologist to oversee the mitigation, which will be accomplished in accordance with the attached mitigation plan and with these special conditions. In cases where a conflict between the two exists, the special conditions supersede the mitigation plan.

wetlands, are being adversely impacted, the permittee will contact the DA for potential remedial actions to be taken. Your responsibility to complete the required compensatory mitigation will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the Corps. If, at any time during the first two years after initial implementation of mitigation, site conditions indicate that the success criteria are not likely to be achieved, the permittee agrees that remedial efforts will be undertaken after consultation with the Corps of Engineers. In addition to on-site remedial efforts, if the Corps determines that additional on-site efforts are fruitless, remedial efforts may include new mitigation plans and sites, the purchase of credits from a mitigation bank or participation in an in-lieu fee program.

L. The permittee agrees that once the wetland mitigation areas have been constructed and planted, proper precautions will be taken to prevent domestic animals and human activity from adversely affecting them, and there will be no mowing, or other detrimental effects to the mitigation areas.

M. The permittee agrees to submit a FACWet assessment of the mitigation site to this office with the proposed final Annual Report. The FACWet assessment shall be conducted by a qualified professional ecologist and submitted to the address given in Special Condition A above.

N. Based on information provided by the applicant, the Corps has determined the overall project purpose is to comply with the Colorado Water Court replacement requirement to the North Lone Pine Creek basin for the Crystal Lakes' residential water consumption. This project purpose was the basis upon which the Corps conducted its review of the application, as well as a basis for the Corps' determination that permit issuance is in the best interest of the public. Accordingly, the Corps authorizes no change in project purpose, or in the nature of the permitted activity, without prior review and approval.

O. The permittee agrees that all construction debris will be disposed of on land in such a manner that it cannot enter a waterway or wetland.

P. The permittee agrees that equipment for handling and conveying materials during construction shall be operated to prevent dumping or spilling the materials into the water except as approved herein.

Q. The permittee agrees that care will be taken to prevent any petroleum products, chemicals, or other deleterious materials from entering the water.

R. The permittee agrees that steps will be taken to prevent materials spilled or stored on shore from washing into the water as a result of cleanup activities, natural runoff, flooding, and that, during construction, any materials which are accidentally spilled into the water will be retrieved.

S. The permittee agrees that all work in the waterway will be performed in such a manner so as to minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation.

T. The permittee agrees that all areas along the bank disturbed or newly created by the construction activity will be seeded with vegetation indigenous to the area for protection against subsequent erosion.

U. The permittee agrees that the clearing of vegetation will be limited to that which is absolutely necessary for construction of the project.

V. The permittee agrees that close coordination will be maintained by the contractor with downstream water users, advising them of any water quality changes to be caused by the construction.

5. FIGURES AND ATTACHMENTS

STATE OF COLORADO

Bill Ritter, Jr., Governor
Martha E. Rudolph, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

http://www.cdphe.state.co.us

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

Colorado Department
of Public Health
and Environment

September 3, 2010

Crystal Lakes Water & Sewer Association
Attn: Steven Koeckeritz
300 Tami Road
Red Feather Lakes, Colorado 80545

Re: **Section 401 Water Quality Certification**
Colorado 401 Certification No.: 4245
US Corps of Engineers 404 Permit No.: NWO-2003-80495-DEN
Description: Proposing to enlarge the existing Lone Pine Reservoir
Location: Section 7, Township 10 North, Range 73 West, 6th PM in Larimer County, Colorado
Watercourse: North Lone Pine Creek, and Lower Lone Pine Reservoir, South Platte River Basin, Segments COSPCP09 and COSPCP18 of Cache Le Poudre River Sub-basin
Designation: Reviewable

Dear Mr. Koeckeritz:

The Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division (Division) has completed its review of the subject Clean Water Act (CWA) Section 404 Permit Application, and our preliminary determination with the issuance of the State of Colorado 401 Certification Public Notice (5 CCR 1002-82.5(B)). An antidegradation review has also been completed pursuant to Regulation No. 31, Basic Standards and Methodologies for Surface Water (5 CCR 1002-31). The Division's review concluded that only temporary impacts to water quality should occur as a result of this project.

This letter shall serve as official notification that the Division is issuing "Regular Certification" in accordance with 5 CCR 1002-82.5(A)(2).

The 401 Certification issued by the Division pursuant to 5 CCR 1002-82.3(C) shall apply to both the construction and operation of the project for which a federal license or permit is required, and shall apply to the water quality impacts associated with the project. This certification does not constitute a relinquishment of the Division's authority as defined in the Colorado Water Quality Control Act, nor does it fulfill or waive any other local, state, or federal regulations.

Lower Lone Pine Reservoir Expansion
Crystal Lakes Water and Sewer Association
Larimer County, CO
Corps File 200380495
Attachment 2

Section 401 Certification Requirements
State of Colorado

(A) The following requirements shall apply to all certifications:

(1) Authorized representatives from the Division shall be permitted to enter upon the site where the construction activity or operation of the project is taking place for purposes of inspection of compliance with BMPs and certification conditions.

(2) In the event of any changes in control or ownership of facilities where the construction activity or operation of the project is taking place, the successor shall be notified in writing by his predecessor of the existence of the BMPs and certification conditions. A copy of such notification shall be provided to the Division.

(3) If the permittee discovers that certification conditions are not being implemented as designed, or if there is an exceedance of water quality standards despite compliance with the certification conditions and there is reason to believe that the exceedance is caused, in whole or in part, by the project, the permittee shall verbally notify the Division of such failure or exceedance within two (2) working days of becoming aware of the same. Within ten (10) working days of such notification, the permittee shall provide to the Division, in writing, the following:

(a) In the case of the failure to comply with the certification conditions, a description of (i) the nature of such failure, (ii) any reasons for such failure, (iii) the period of noncompliance, and (iv) the measures to be taken to correct such failure to comply; and

(b) In the case of the exceedance of a water quality standard, (i) an explanation, to the extent known after reasonable investigation, of the relationship between the project and the exceedance, (ii) the identity of any other known contributions to the exceedance, and (iii) a proposal to modify the certification conditions so as to remedy the contribution of the project to the exceedance.

(4) Any anticipated change in discharge location and/or quantities associated with the project which may result in water quality impacts not considered in the original certification must be reported to the Division by submission of a written notice by the permittee prior to the change. If the change is determined to be significant, the permittee will be notified within ten days, and the change will be acknowledged and approved or disapproved.

(5) Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions herein is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with limitations and prohibitions

(11) The project shall incorporate provisions for operation, maintenance, and replacement of BMPs to assure compliance with the conditions identified in this section, and any other conditions placed in the permit or certification. All such provisions shall be identified and compiled in an operation and maintenance plan which will be retained by the project owner and available for inspection within a reasonable timeframe upon request by any authorized representative of the Division.

(12) The use of chemicals during construction and operation shall be in accordance with the manufacturers specifications. There shall be no excess application and introduction of chemicals into state waters.

(13) All solids, sludges, dredged or stockpiled materials and all fuels, lubricants, or other toxic materials shall be controlled in a manner so as to prevent such materials from entering state waters.

(14) All seed, mulching material and straw used in the project shall be state certified weed-free.

(15) Discharges of dredged or fill material in excess of that necessary to complete the project are not permitted.

(16) Discharges to state waters not identified in the license or permit and not certified in accordance therewith are not allowed, subject to the terms of any 401 certification.

(17) Except as otherwise provided pursuant to subsection 82.7(C), no discharge shall be allowed which causes non-attainment of a narrative water quality standard identified in the Basic Standards and Methodologies for Surface Waters, Regulation #31 (5 CCR 1002-31), including, but not limited to discharges of substances in amounts, concentrations or combinations which:

(a) Can settle to form bottom deposits detrimental to beneficial uses; or

(b) Form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses; or

(c) Produce color, odor, or other conditions in such a degree as to create a nuisance or harm existing beneficial uses or impart any undesirable taste to significant edible aquatic species, or to the water, or

(d) Are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life; or

(e) Produce a predominance of undesirable aquatic life; or

(f) Cause a film on the surface or produce a deposit on shorelines.

Lower Lone Pine Reservoir Expansion
Mitigation Plan

North Fork Lone Pine Creek is classified as a riverine system that contains scrub/shrub wetlands and a well developed riparian corridor along the adjacent banks. Perennial creek flow and natural stream gain provide base flows as a source of hydrology supporting the wetlands.

An understanding of the stream and adjacent wetland and riparian area ecological functions can assist in the analysis and mitigation of potential impacts. Studies have recognized that riverine and palustrine systems provide particular functions to the environment. These functions are the physical, chemical, and biological processes or attributes vital to the integrity of riparian systems. Researchers recognize a variety of wetland and riparian functions that typically are related to water quality, biodiversity, and hydrological and ecological processes.

When considering appropriate ecologically preferable mitigation alternatives within a watershed context, onsite and offsite mitiation alternatives may be evaluated. In this case, the proposed project is not located within the primary service area a wetland mitigation bank. The wetlands within the project area have a number of functions which include soil stabilization, reducing bank erosion and sediment loads by trapping sediment during high flows, and providing habitat for wildlife species. Because site conditions are readily conducive to wetland establishment, it was determined that on-site mitigation was ecologically preferable within a watershed context.

Compensatory mitigation replaces and improves permanently impacted resources. For this project, compensatory mitigation focuses on providing functions similar to or better than functions provided by the impacted wetlands. Compensatory mitigation would improve functions by using persistent native vegetation types to replace the existing wetlands, which also are likely to enhance general wildlife habitat and provide nutrient processing to the stream system. Aquatic habitat would be enhanced by creating a more stable channel and establishing woody vegetation along the channel that would provide wildlife cover and habitat.

The project is expected to permanently impact approximately 0.602 acre of scrub/shrub wetlands. Of this total, 0.097 acre of wetland would be directly impacted by fill from the enlargement of the dam, and 0.505 acre would be impacted as a result of inundation. Project impacts will be mitigated at a 1:1 ratio, on-site and in-kind. Mitigation will occur by creating an in-kind scrub/shrub wetland on the upstream portion of the reservoir.

Description of Proposed Mitigation Site

A portion of the mitigation area is existing wetlands extending from the impacted Wetland-7. The wetland is a fringe along Lone Pine creek approximately one foot on each side of the creek. The linear distance is approximately 450 ft for a total wetland area of 0.021 acres. The proposed mitigation will provide approximately 0.64 acres (excluding the existing 0.021 acres of wetlands) and will consist primarily of scrub-shrub wetlands, resulting in a mitigation ratio of 1:1. The mitigation site contains two sections of proposed contouring. The first section is located on both sides of the creek and will be 0.54 acres in size. The second section is on the north side of the creek and will be 0.1 acres in size. The current elevation of the site ranges from 7,979 ft in the center portion of the creek to 7987.5 ft at the outer limits of the proposed mitigation area. The lower limit (east edge) of the proposed site is bounded by an existing road and culvert system. Lone Pine Creek bisects the proposed mitigation site and flows through the culvert.

Topsoil Handling

The excavation and fill area will be stripped to a depth of approximately eight inches. This topsoil material will be stored for later use on the wetland mitigation site. The salvaged topsoil will be stored in a distinctly separate area so that mixing between topsoil and other fill material will not occur. This topsoil will be replaced following final grading of the mitigation site. All soil material removed will be transported to the mitigation site and spread evenly over the site following final contouring. If the topsoil is compacted, a spring tooth harrow equipped with utility or seedbed teeth, or similar equipment will be used to loosen and smooth the soil surface. If the topsoil is loose, it will be compacted with a cultipacker or similar implement to provide a firm seedbed.

Vegetation Establishment

Due to the inundation provided by normal runoff and the overflow structure, wetland vegetation should naturally colonize the area. However, seeding with an approved seed mix will facilitate wetland establishment, expedite the reclamation process, and reduce the potential for noxious weed invasion. Seeds will be obtained from a commercial supplier specializing in wetland plants. Two seed mix zones are suggested based on inundation levels of the proposed site. Due to the varying water depths it is prudent to modify mixes based on vegetation inundation tolerance. The seed mix will be composed of species that grow naturally in the emergent and shrub-scrub wetlands throughout the region. Seeding will help promote rapid establishment of a desirable wetland by increasing the probability that a relatively high proportion of desirable wetland plants become established. An appropriate mixture of native wetland plant seed will be drilled or broadcast evenly on prepared areas. If seeds are broadcast, a chain drag or flatten spike harrow will be used to lightly cover the seed.

A number of willow species exist within the impacted wetlands at the project site. A mixture of willow cuttings from the immediate project area will be transplanted while in the dormant stages (early spring). Willows will not be planted into frozen ground. Cuttings will be between 0.2 and 0.8 inches in diameter. Willow cuttings will be planted on an average of 5-foot centers throughout the entire wetland. The actual spacing will be varied to simulate natural vegetation, but total density will be approximately 555 willows/acre, requiring planting of approximately 350 willow cuttings.

Willows should be planted primarily in areas with proposed inundation levels between four inches of water to four inches above the inundation limits.

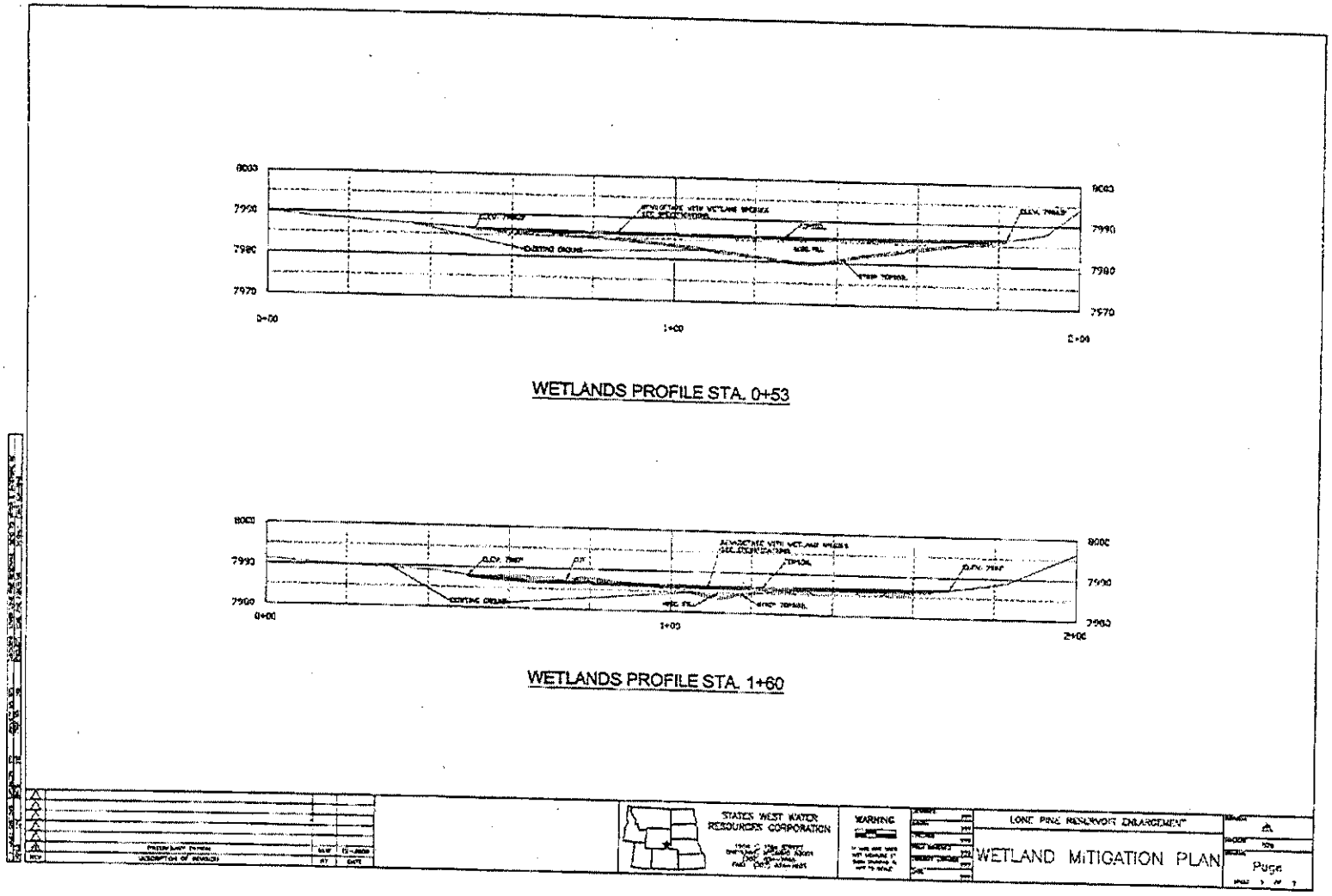


Figure 2b. Proposed construction plan for the Crystal Lake Reservoir Expansion Project wetland creation site

Appendix F

Annual Reports

CRYSTAL LAKES
WATER AND SEWER ASSOCIATION

FINANCIAL STATEMENTS

YEARS ENDED MAY 31, 2010 AND 2009

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

TABLE OF CONTENTS

Rickards & Long Rulon, LLP
Certified Public Accountants and Consultants

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Crystal Lakes Water and Sewer Association
Red Feather Lakes, Colorado

We have audited the accompanying balance sheets of Crystal Lakes Water and Sewer Association as of May 31, 2010 and 2009, and the related statements of revenues and expenses, changes in members' equity and cash flows for the years then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America as established by the Auditing Standards Board. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Crystal Lakes Water and Sewer Association as of May 31, 2010 and 2009, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The supplemental information on future repairs and replacements on pages 12 and 13 is not a required part of the basic financial statements of Crystal Lakes Water and Sewer Association but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of designated funds on page 14 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements, and in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Rickards Long & Rulon, LLP

Fort Collins, Colorado
November 15, 2010

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CRYSTAL LAKES WATER AND SEWER ASSOCIATION

BALANCE SHEETS
As of May 31, 2010 and 2009

	2010	2009
ASSETS		
Current Assets		
Cash and cash equivalents	$ 202,192	$ 282,045
Certificate of deposit	144,531	-
Interest receivable	-	1,602
Due from affiliated entity	2,039	5,713
Prepaid expenses	2,229	1,956
Inventory	379	2,210
Total current assets	351,370	293,526
Non-Current Assets		
Cash and cash equivalents, designated	-	148,886
Certificate of deposit, designated	717,113	611,839
Cash, restricted	25,000	25,000
Certificate of deposit, restricted	88,356	88,161
Dues and accounts receivable, net of allowance for doubtful accounts of $10,939 and $11,559 for May 31, 2010 and 2009.	19,933	18,721
Lots held for sale	3,556	3,556
Property and equipment, net	673,800	556,169
Total non-current assets	1,527,758	1,452,332
Total assets	$ 1,879,128	$ 1,745,858
LIABILITIES		
Current Liabilities		
Accounts payable	$ 10,163	$ 36,735
Accrued expenses	11,979	11,462
Prepaid assessments	1,190	1,289
Total current liabilities	23,332	49,486
MEMBERS' EQUITY		
Undesignated	1,025,327	822,486
Designated for future repairs and replacements	717,113	760,725
Temporarily restricted	113,356	113,161
Total members' equity	1,855,796	1,696,372
Total liabilities and members' equity	$ 1,879,128	$ 1,745,858

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF REVENUES AND EXPENSES
Years Ended May 31, 2010 and 2009

	2010	2009
REVENUES		
Membership dues and assessments	$ 394,642	$ 393,042
Ownership transfer fees	2,650	3,700
Fines	825	3,800
Sewer hauls	25,385	23,905
Water hauls	11,705	13,155
Boat storage fees	9,180	8,999
Gasoline sales	294	5,055
Water meter sales	3,840	4,455
Finance charge income	6,984	6,871
Interest income	2,785	19,018
Gain on sale of assets	-	6,540
Other	9,122	14,558
Total revenues	467,412	503,098
EXPENSES		
Salaries	126,646	133,599
Payroll taxes	10,763	11,372
Depreciation	28,158	29,314
Office expense	33,700	40,999
Employee benefits	30,716	33,612
Insurance	17,403	16,775
System operations	19,484	26,442
Professional services	8,146	16,250
Vehicle maintenance	6,210	6,402
System maintenance	11,440	18,008
Utilities	6,958	5,924
Repairs and maintenance	4,239	10,109
Bad debts	-	2,000
Miscellaneous	125	618
Income tax expense	4,000	16,182
Loss on sale of lots	-	2,858
Total expenses	307,988	370,464
Excess of revenue over expenses	$ 159,424	$ 132,634

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF CHANGES IN MEMBER'S EQUITY
Years Ended May 31, 2010 and 2009

	Total	Undesignated	Designated for Repairs and Replacement	Temporarily Restricted
MEMBERS' EQUITY - May 31, 2008	$ 1,563,738	$ 730,825	$ 721,273	$ 111,640
Excess revenues over expenses	132,634	132,634		-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(115,846)	115,846	-
Interest income	-	(15,214)	13,693	1,521
Expenditures for major repairs and replacements	-	90,087	(90,087)	-
Transfers	-	-	-	-
MEMBERS' EQUITY - May 31, 2009	$ 1,696,372	$ 822,486	$ 760,725	$ 113,161
Excess revenues over expenses	159,424	159,424	-	-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(115,648)	115,648	-
Interest income	-	(2,562)	2,367	195
Expenditures for major repairs and replacements	-	161,627	(161,627)	-
Transfers	-	-	-	-
MEMBERS' EQUITY - May 31, 2010	$ 1,855,796	$ 1,025,327	$ 717,113	$ 113,356

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF CASH FLOWS
Years Ended May 31, 2010 and 2009

	2010	2009
Cash Flows From Operating Activities		
Excess of revenues over expenses	$ 159,424	$ 132,634
Adjustments to reconcile excess of revenues over expenses to net cash provided by operating activities		
Depreciation expense	28,158	29,314
(Gain) loss on sale of property and equipment	-	(6,540)
Loss on sale of lots	-	2,858
Provision for bad debts	-	2,000
(Increase) decrease in operation assets		
Dues and accounts receivable	(1,212)	3,252
Interest receivable	1,602	7,640
Prepaid expenses	(273)	2,060
Inventory	1,831	6,825
Due from affiliated entity	3,674	(5,713)
(Increase) decrease in operation liabilities		
Accounts payable	(26,572)	(73,774)
Accrued expenses	517	1,801
Prepaid assessments	(99)	(224)
Due to affiliated entity	-	(1,134)
Net cash provided by operating activities	167,050	100,999
Cash Flows From Investing Activities		
Purchase of certificate of deposit	(250,000)	(700,000)
Proceeds from maturities of certificates of deposits	-	769,000
Acquisitions of property and equipment	(145,789)	(99,119)
Proceeds from sales of property and equipment	-	10,000
Acquisitions of lots	-	(6,457)
Proceeds from sale of lots	-	15,896
Net cash (used) by investing activities	(395,789)	(10,680)
Net Increase (Decrease) in Cash and Cash Equivalents	(228,739)	90,319
Cash and Cash Equivalents, Beginning of Year	430,931	340,612
Cash and Cash Equivalents, End of Year	$ 202,192	$ 430,931
Supplemental Information		
Cash payments for income taxes	$ 4,000	$ 1,732
Settlement of accounts receivable in exchange for lots held for sale	$ -	$ 4,222

See accompanying notes to financial statements.

Note 1. Nature of Organization

Crystal Lakes Water and Sewer Association (the Association) is organized as a not for profit corporation in the State of Colorado for the purpose of promoting the general well-being of property owners in the Crystal Lakes Development and within the boundaries established in the plan for augmentation in Colorado Water Court decrees 7631-74 and 8540-77, located in Red Feather Lakes, Colorado. The Association's membership consists of property owners with diverse backgrounds from various regions across the United States. The significant activities of the Association include the acquisition of water rights and the operation and maintenance of water and sewer facilities for approximately 1,675 lots in the development. Financing for the Association's activities is derived through membership assessments and fees from member services.

Note 2. Summary of Significant Accounting Policies

Accounting Standards

In June 2009, the Financial Accounting Standards Board issued FASB Statement No. 168, The *FASB Accounting Standards Codification* and the Hierarchy of Generally Accepted Accounting Principles. This Statement establishes the *FASB Accounting Standards Codification* (ASC) as the source of authoritative U.S. generally accepted accounting principles recognized by the FASB to be applied by all nongovernmental entities. This Statement is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Association has adopted ASC for the annual period ended May 31, 2010.

Common Property

The Association owns various common properties, including a water and sewer maintenance building, water and wastewater central plants, the lakes, and sites for future utility construction. The properties originally contributed by the developer are not reported on the accompanying financial statements. The assets contributed by the developer are primarily lakes and future utility sites.

Any properties subsequently acquired are carried at the Association's cost, net of depreciation. The Association subsequently purchased, and is carrying on the books, one-half of Catawba Lake, the upper Lone Pine Lake site, and the water and sewer maintenance building.

The Association is responsible for the repair and maintenance of dams, maintenance building and central water and wastewater facilities. The maintenance of these properties is funded by member assessments.

Member Assessments

Association members are subject to annual assessments to provide funds for the Association's operating expenses, future capital acquisitions and replacements. Any excess assessments at year end are retained by the Association for use in the succeeding year.

Allowance for Doubtful Dues and Accounts Receivable and Revenue Recognition

The Association has adopted the reserve method of accounting for uncollectible dues and accounts receivable. When membership dues become delinquent for a substantial period of time, it has been the Association's policy to file liens on the property owner's real estate located in the development. Effective January 1, 1994, Colorado statutes have made homeowner's association dues an automatic lien against the property with no formal filing required by the Association.

Note 2. Summary of Significant Accounting Policies (continued)

Allowance for Doubtful Dues and Accounts Receivable and Revenue Recognition (continued)

Even so, collection efforts may be hindered by bankruptcy laws, security interests subordinated to those of other creditors, and the relative expense of collection procedures. As billings for services are done annually, any amounts due at year-end have been outstanding for one year. Due to the time the receivables have been outstanding and uncertain nature of when the balance will be collected, management has elected to exclude accounts receivable from current assets. Allowances for doubtful accounts are based on a review of the status of existing accounts coupled with past collection experience. Billings for annual assessments cover the period from June 1 through May 31. Such billings are recorded as dues and accounts receivable and revenue on June 1 of each operating year. Amounts collected prior to the assessment date are recorded as a liability in the account titled "prepaid assessments" on the balance sheet of the Association.

Property and Equipment

Depreciation is computed on a straight-line basis over the estimated useful lives of the individual assets. In general, class lives are presented below:

Class	Life in Years
Land improvements	20
Buildings and improvements	20
Machinery and equipment	5-15
Autos and trucks	5-10
Office furniture and equipment	3-5

Cash Equivalents

For purpose of the statement of cash flows, the Association considers all highly liquid investments with a maturity of three months or less to be cash equivalents.

The Association maintains its cash in bank accounts which on occasion may exceed federally insured limits of $250,000 as guaranteed by the Federal Deposit Insurance Corporation. The Association has not experienced any losses in such accounts.

Lots held for sale

On occasion, the Association will acquire lots from sheriff's sales and hold them until they can be resold. Lots are recorded at the cost of unpaid assessments, legal fees and property taxes at date of acquisition. Since the sum of these costs are generally less than the fair market value, the Association has not incurred any material impairment losses related to lots held for sale.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Advertising

Advertising is expensed as incurred. The Association did not have advertising expenses in either of the years ended May 31, 2010 and 2009.

Note 2. Summary of Significant Accounting Policies (continued)

Income Taxes

The Association may elect to be taxed as a homeowners association, or as a regular corporation, under the provisions of the Internal Revenue Code. Under current regulations, the Association is taxed as a regular corporation unless this annual election is made. As a regular corporation, membership income is exempt from taxation if certain elections are made and the Association is taxed only on its non-membership income, such as interest earnings, at regular federal and state corporate rates.

Differences in income reported for financial statement purposes and income for income tax purposes may result from the following:

The Association uses the straight-line method of depreciation for financial statements while depreciation is calculated using a combination of straight-line and accelerated methods for income tax reporting. The depreciable lives of assets may be different for book and tax purposes.

The Association uses the reserve method of accounting for bad debts for financial statements, while the direct write-off method is utilized for income tax purposes.

Accrued compensated absences are not deductible for income tax purposes until paid.

In any year that the election is made to be taxed as a Homeowners Association, membership dues and general operating expenses are not taxable or deductible. Only income for special services received from members and nonmembers, and the expenses related to providing these services, are considered in computing taxable income.

On June 1, 2009, The Association adopted the recognition requirements for uncertain income tax positions as required by ASC 740-10. The standard prescribes a comprehensive model for how an organization should recognize, measure, present and disclose in the financial statements uncertain tax positions the organization has taken or expects to take on a tax return. The Association's income tax filings are subject to audit by various taxing authorities. The Association's open audit tax return periods are 2006 through 2008. In evaluating the Association's tax provisions and accruals, interpretations and tax planning strategies are considered. The Association believes their estimates are appropriate based on current facts and circumstances and have not recorded any reserves, or related accruals for interest and penalties for uncertain income tax positions at May 31, 2010.

Reclassification

Certain prior year amounts have been reclassified to conform to current year presentation.

Date of Management's Review

In preparing the financial statements, the Association has evaluated events and transactions for potential recognition or disclosure through November 15, 2010, the date that the financial statements were available to be issued.

Note 3. Transactions with Crystal lakes Road and Recreation Association

Crystal Lakes Water and Sewer Association and Crystal Lakes Road and Recreation Association are organizations that consist primarily, but not exclusively, for the benefit of the Crystal Lake property owners. The Associations share certain administrative expenses.

	2010	2009
Balance due (to) from affiliate at May 31	$ 2,039	$ 5,713

Note 4. Income Taxes

The Association may elect in any year to be taxed as a Homeowners' Association. This election was made for the fiscal years ending in 2010 and 2009. The Association makes the homeowners election only in these years in which it would create tax savings. The Association has incurred income tax expense of $4,000 and $16,182 for the years ending May 31, 2010 and 2009, respectively.

The Association has temporary timing differences between its books and tax methods of accounting. These items may create deferred tax liabilities or deferred tax assets. There may be no tax benefit received from the reversal of a timing difference, if the timing difference is eliminated in whole or in part in any year that the Association elects to be taxed as a Homeowners Association or is operating at a loss. It is the intent of the Association to make the Homeowners election in those years where it would minimize taxes.

Furthermore, the Association has historically operated at a level where it pays little or no income tax. Considering the relevant factors, it is highly unlikely that the Association will derive any significant future loss or benefit related to deferred taxes. Accordingly, any deferred tax assets are fully offset with a value allowance.

Note 5. Employee Benefit Plans

The Crystal Lakes Water and Sewer Association jointly employs certain personnel with the Crystal Lakes Road and Recreation Association. The following is a summary of employee benefit plans currently in effect:

Compensated Absences

Vacation leave - The Association presently has a policy that allows full-time employees ten working days annual vacation after one full year of service. After five years of service, employees earn fifteen working vacation days annually. After ten years of service, employees earn twenty working vacation days annually. Vacation pay is a vested benefit.

Sick leave - Full-time employees may accumulate one day of compensated sick leave for each month of service to the Association. Employees may accumulate a maximum of thirty days of unused sick leave. Sick leave is not a vested benefit.

Paid holidays - Full-time employees, other than exempt employees, who are required to work on holidays may elect to take one day off or to be paid for the holiday at one and one-half times their hourly rate, in addition to being paid for the holiday worked.

Note 5. Employee Benefit Plans (continued)

Medical Benefits

The Association provides health, life and dental coverage for all full-time employees; dependent coverage for full-time employees is available at the employee's expense. The cost of providing benefits is shared equally with the Crystal Lakes Road and Recreation Association.

Pension Plan

The Association has a defined contribution pension plan (the plan) covering all full-time employees who have completed three full years of service to the Association. The Association makes a contribution to the plan each year equal to 6% of all eligible employees' annual compensation. Employer contributions are fully vested for employees that earn more than $500 per year and have reached three years of service. The Association contributed $4,135 and $4,389 to the plan for the years ending May 31, 2010 and 2009, respectively.

Note 6. Restricted Member's Equity

Subdivision Improvement Agreement (S.I.A.)

On March 7, 1982, Crystal Lakes Development Company (the Developer) entered into an agreement with Larimer County. Under this agreement, the Developer pledged certain lots in the Crystal Lakes subdivision filings to secure obligations for subdivision improvements. The Developer defaulted on this agreement.

Crystal Lakes Road and Recreation Association and Crystal Lakes Water and Sewer Association entered into an agreement dated December 18, 1985, with Larimer County and the Developer. This agreement transferred title to most of the properties, pledged under the earlier agreement, to the County, and left the Associations responsible for the performance of the improvements after the sale of the properties, to the extent funds are available from the sales.

In September 1992, the Associations negotiated a settlement agreement with Larimer County that modified the terms of the 1985 agreement. Under the terms of the agreement, the remaining proceeds to be used for the construction or improvement of certain roads, and water and sewer facilities required under the original agreement. The balance of funds to be expended under this agreement are $88,356 and $88,161 as of May 31, 2010 and 2009, respectively.

Mine Permit

The Association maintains a certificate of deposit in the amount of $25,000 as a bond for a mine permit. The purpose of the bond is to ensure reclamation of the land by the Association. Since the funds are restricted by the state, they have been separately presented as a non-current asset.

The Association has an obligation to reclaim certain property currently used as a gravel pit. The Association has not recognized an obligation for the reclamation as the Association cannot reasonably estimate the fair value of reclamation due to the uncertain remaining useful life of the property.

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Note 7. Property and Equipment

Property and equipment are summarized as follows:

	2010	2009
Land and improvements	$ 326,018	$ 326,556
Buildings and improvements	134,729	133,276
Machinery and equipment	89,362	89,362
Autos and trucks	111,311	115,811
Office furniture and equipment	26,294	26,294
Water rights	15,054	15,054
Construction in progress	418,946	274,610
Subtotal	1,121,714	980,963
Accumulated depreciation and amortization	(447,914)	(424,794)
Property and Equipment, net	$ 673,800	$ 556,169

Note 8. Designated Member's Equity and Future Major Repairs and Replacements

The Association's governing documents do not require the accumulation of funds to finance future major repairs and replacements. The Board of Directors, however, has established a fund (the replacement fund) to accumulate funds for the estimated costs of future major repairs and replacements, required projects and for the expansion of existing common property. There was $28,371 and $36,104 in the replacement fund as of May 31, 2010 and 2009, respectively.

The Association is obligated by the augmentation plan to construct a water storage reservoir. The feasibility study completed in April 1993, estimated the Association's cost for the reservoir at $2.0 million. Management expects to fund this project through a $1.5 million loan from the Colorado Water Conservation Board for a 30 year term with a projected interest rate of 5% or less. Repayment of the loan will be funded by future membership assessments and fees. Beginning in the fiscal year ended May 31, 2002, the Association approved a capital projects special assessment for the construction of Upper Lone Pine Lake. The assessment is $70 per year, per lot and resulted in assessments of 115,648 and $115,846 during the years ended May 31, 2010 and 2009, respectively. With transfers from the operating bank account, the balance in the special assessment fund was $688,742 and $724,621 as of May 31, 2010 and 2009, respectively. As a result of feasibility studies performed, the Association has determined a need to pursue alternative options to meet the requirements of the augmentation plan. An impairment loss has not been incurred due with this change as the alternative option selected will be as a result of work already performed.

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. The Association will fund for such major repairs and replacements over the estimated useful lives of the components based on the study's estimate of future replacement costs, considering amounts previously accumulated in the replacement fund. Actual expenditures, however, may vary from the estimated amounts and the variations may be material. Therefore, amounts accumulated in the replacement fund may not be adequate to meet future needs.

SUPPLEMENTARY INFORMATION

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

SUPPLEMENTARY INFORMATION ON FUTURE REPAIRS AND REPLACEMENTS (UNAUDITED)
Years Ended May 31, 2010

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. Replacement costs were based on the estimated costs to repair to replace the common property at May 31, 2010. Estimated current replacement costs do not take into account the effects of inflation between the time of the study and the date the components will require repair or replacement. Not included in this schedule are the costs of the Upper Lone Pine/Lower Lone Pine Lake project explained in Note 8.

The following information is based on the study and presents significant information about the components of common property:

FY 2009-2010	Estimated Remaining Useful Life (Years)	Estimated Current Repair or Replacement Cost
Boat house - replace	0	$ 40,000
Water lines - replace (part)	0	5,000
Wood surfaces - repair/reseal	0	5,000
Ponds - repair/dredge 50%	2	7,000
Motors and pumps - replace (part)	3	5,000
Truck - replace 50%	3	15,250
Vehicle - replace 50%	3	17,500
Miscellaneous contingency	4	25,000
Septic system - refurbish	5	87,500
Water/sewer trucks - replace	12	160,000
Backhoe - replace	15	60,000
Boat racks - replace	20	35,000
Total		$ 462,250

See independent auditor's report and accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

SUPPLEMENTARY SCHEDULE OF ACTIVITY IN MEMBERS' EQUITY
Year Ended as of May 31, 2010

	Designated			Restricted				
	Upper Lone Pine Lake	Major Reserve	Total	Mine Reclamation	Subdivision Improvement Agreement	Total	Undesignated	Total Equity
Beginning balance	$ 724,621	$ 36,104	$ 760,725	$ 25,000	$ 88,161	$ 113,161	$ 822,486	$ 1,696,372
Net Income	-	-	-	-	-	-	159,424	159,424
Revenues	115,648	-	115,648	-	-	-	(115,648)	-
Interest Income	2,061	306	2,367	-	195	195	(2,562)	-
Transfers	-	-	-	-	-	-	-	-
Expenditures	(153,588)	(8,039)	(161,627)	-	-	-	161,627	-
Ending balance	$ 688,742	$ 28,371	$ 717,113	$ 25,000	$ 88,356	$ 113,356	$ 1,025,327	$ 1,855,796

See independent auditor's report and accompanying notes to financial statements.

Rickards & Long Rulon, LLP
Certified Public Accountants and Consultants

To the Board of Directors
Crystal Lakes Water and Sewer Association
Red Feather Lakes, Colorado

In planning and performing our audit of the financial statements of Crystal Lakes Water and Sewer Association (the Association) as of and for the year ended May 31, 2010, in accordance with auditing standards generally accepted in the United States of America, we considered the Association's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, we do not express an opinion on the effectiveness of the Association's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and therefore there can be no assurance that all such deficiencies have been identified. However, as discussed below, we identified certain deficiencies in internal control that we consider to be material weaknesses and other deficiencies that we consider to be significant deficiencies.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the Association's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the following deficiencies in the Association's internal control to be material weaknesses:

- We proposed audit adjustments required to present the financial statements in accordance with generally accepted accounting principles. We consider the following adjustments, both individually and in the aggregate, to be material to the financial statements:
    - To adjust income tax expense ($4,000)
    - To adjust inventory ($2,604)
    - To dispose of fixed assets ($5,038)
    - To record accounts payable ($8,332)
    - To adjust depreciation expense ($1,087)
    - To adjust interest receivable ($1,602)

A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the following deficiencies in the Association's internal control to be significant deficiencies:

- While management of the Association is knowledgeable about accounting practices, management lacks the ability to prepare financial statements in accordance with generally accepted accounting principles (GAAP) and lacks the ability to identify financial statement disclosures required by GAAP. Management is dependent on the auditors for guidance regarding the financial statements and disclosures required by GAAP. The auditor cannot be part of your internal control system over financial reporting nor a compensating control.

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- The basic premise of a good system of internal controls is that no one employee should have access to both the physical assets and the related accounting records, or to all phases of a transaction. The size of the Association's accounting staff limits the extent of the segregation of duties within the organization, and does not allow for adequate segregation of duties in the regard.

  Although a lack of segregation of duties exists within certain functions of the Association, we do recognize that the Board of Directors and management have implemented controls to mitigate the risk from this lack of segregation of duties. While we believe these controls to be effective in mitigating this risk, we recommend that the Board of Directors and management continue to monitor financial activities with the lack of segregation of duties in mind.

In addition, we noted the following items, which we do not consider to be significant deficiencies in internal control, for consideration by the Board of Directors and Management:

- With the financial institution industry continuing to struggle with the credit crisis and economic recession, we recommend that the Association closely monitor the banking relationships currently in place. If necessary, the organization should consider utilizing other financial institutions to better allocate credit risk associated with bank deposit balances. While the FDIC has reduced the exposure to loss by increasing the insurance limit to $250,000, the Association may, at times, have balances in excess of this amount. The FDIC and Office of the Comptroller of the Currency regulators frequently publish information about financial institutions, enforcement actions and quarterly financial statements for individual local and national banks. We recommend monitoring your banking relationships and account balances to reduce the overall risk of loss with your deposit assets.
- It has been estimated that the IRS will conduct payroll tax audits for approximately 500 tax exempt organizations in the coming year. Agents will examine for misclassification of employees as contractors, as well as executive pay, fringe benefits and expense reimbursements. These audits are part of the 2,000 payroll tax audits that the IRS will conduct this year to select targets for future payroll tax audits and to refine estimates of the tax gap. We recommend that the Association review its internal controls over these transactions to ensure that the organization is in compliance with IRS payroll tax regulations.

This communication is intended solely for the information and use of management, the Board of Directors, and others within the Association, and is not intended to be and should not be used by anyone other than these specified parties.

RickardsLong & Rulon, LLP

Fort Collins, Colorado
November 15, 2010

CRYSTAL LAKES
WATER AND SEWER ASSOCIATION

FINANCIAL STATEMENTS

YEARS ENDED MAY 31, 2009 AND 2008

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

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Rickards & Long Rulon, LLP
Certified Public Accountants and Consultants

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Crystal Lakes Water and Sewer Association
Red Feather Lakes, Colorado

We have audited the accompanying balance sheets of Crystal Lakes Water and Sewer Association as of May 31, 2009 and 2008, and the related statements of revenues and expenses, changes in members' equity and cash flows for the years then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Crystal Lakes Water and Sewer Association as of May 31, 2009 and 2008, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The supplemental information on future repairs and replacements on pages 12 and 13 is not a required part of the basic financial statements of Crystal Lakes Water and Sewer Association but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of designated funds on page 14 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements, and in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Rickards Long & Rulon, LLP

Fort Collins, Colorado
October 17, 2009

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CRYSTAL LAKES WATER AND SEWER ASSOCIATION

BALANCE SHEETS
As of May 31, 2009 and 2008

	2009	2008
ASSETS		
Current Assets		
Cash and cash equivalents	$ 282,045	$ 276,699
Interest receivable	1,602	9,242
Due from affiliated entity	5,713	-
Prepaid expenses	1,956	4,016
Inventory	2,210	9,035
Total current assets	293,526	298,992
Non-Current Assets		
Certificate of deposit, undesignated	-	25,000
Cash and cash equivalents, designated	148,886	63,913
Certificate of deposit, designated	611,839	657,360
Cash, restricted	25,000	25,000
Certificate of deposit, restricted	88,161	86,640
Dues and accounts receivable, net of allowance for doubtful accounts of $11,559 and $11,000 for May 31, 2009 and 2008.	18,721	28,195
Lots held for sale	3,556	11,631
Property and equipment, net	556,169	489,824
Total non-current assets	1,452,332	1,387,563
Total assets	$ 1,745,858	$ 1,686,555
LIABILITIES		
Current Liabilities		
Accounts payable	$ 36,735	$ 110,509
Accrued expenses	11,462	9,661
Prepaid assessments	1,289	1,513
Due to affiliated entity	-	1,134
Total current liabilities	49,486	122,817
MEMBERS' EQUITY		
Undesignated	822,486	730,825
Designated for future repairs and replacements	760,725	721,273
Temporarily restricted	113,161	111,640
Total members' equity	1,696,372	1,563,738
Total liabilities and members' equity	$ 1,745,858	$ 1,686,555

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF REVENUES AND EXPENSES
Years Ended May 31, 2009 and 2008

	2009	2008
REVENUES		
Membership dues and assessments	$ 393,042	$ 389,060
Ownership transfer fees	3,700	6,735
Fines	3,800	-
Sewer hauls	23,905	23,124
Water hauls	13,155	12,645
Boat storage fees	8,999	5,240
Gasoline sales	5,055	6,935
Water meter sales	4,455	2,735
Finance charge income	6,871	9,929
Interest income	19,018	44,114
Gain on sale of assets	6,540	-
Other	14,558	12,409
Total revenues	503,098	512,926
EXPENSES		
Salaries	133,599	122,957
Payroll taxes	11,372	10,638
Depreciation	29,314	33,036
Office expense	40,999	38,846
Employee benefits	33,612	27,553
Insurance	16,775	23,278
System operations	26,442	9,924
Professional services	16,250	35,850
Vehicle maintenance	6,402	3,225
System maintenance	18,008	26,154
Loss on sale of assets	-	633
Utilities	5,924	7,679
Repairs and maintenance	10,109	8,683
Bad debts	2,000	-
Miscellaneous	618	44
Income tax expense	16,182	13,713
Loss on sale of lots	2,858	-
Total expenses	370,464	362,213
Excess of revenue over expenses	$ 132,634	$ 150,713

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF CHANGES IN MEMBER'S EQUITY
Years Ended May 31, 2009 and 2008

	Total	Undesignated	Designated for Repairs and Replacement	Temporarily Restricted
MEMBERS' EQUITY - May 31, 2007	$ 1,413,025	$ 594,115	$ 709,775	$ 109,135
Excess revenues over expenses	150,713	150,713	-	-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(115,921)	115,921	-
Interest income	-	(8,262)	5,757	2,505
Expenditures for major repairs and replacements	-	159,132	(159,132)	-
Transfers	-	(48,952)	48,952	-
MEMBERS' EQUITY - May 31, 2008	$ 1,563,738	$ 730,825	$ 721,273	$ 111,640
Excess revenues over expenses	132,634	132,634		-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(115,846)	115,846	-
Interest income	-	(15,214)	13,693	1,521
Expenditures for major repairs and replacements	-	90,087	(90,087)	-
Transfers	-	-	-	-
MEMBERS' EQUITY - May 31, 2009	$ 1,696,372	$ 822,486	$ 760,725	$ 113,161

See accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

STATEMENTS OF CASH FLOWS
Years Ended May 31, 2009 and 2008

	2009	2008
Cash Flows From Operating Activities		
Excess of revenues over expenses	$ 132,634	$ 150,713
Adjustments to reconcile excess of revenues over expenses to net cash provided by operating activities		
Depreciation expense	29,314	33,036
(Gain) loss on sale of property and equipment	(6,540)	633
Loss on sale of lots	2,858	-
Provision for bad debts	2,000	-
(Increase) decrease in operation assets		
Dues and accounts receivable	3,252	(12,208)
Interest receivable	7,640	(4,228)
Prepaid expenses	2,060	(76)
Inventory	6,825	(5,062)
Due from affiliated entity	(5,713)	58,782
(Increase) decrease in operation liabilities		
Accounts payable	(73,774)	105,031
Accrued expenses	1,801	(9,985)
Prepaid assessments	(224)	1,513
Due to affiliated entity	(1,134)	1,134
Net cash provided by operating activities	100,999	319,283
Cash Flows From Investing Activities		
Purchase of certificate of deposit	(700,000)	(769,000)
Proceeds from maturities of certificates of deposits	769,000	200,000
Acquisitions of property and equipment	(99,119)	(173,042)
Proceeds from sales of property and equipment	10,000	-
Acquisitions of lots	(6,457)	(8,075)
Proceeds from sale of lots	15,896	-
Net cash (used) by investing activities	(10,680)	(750,117)
Net Increase (Decrease) in Cash and Cash Equivalents	90,319	(430,834)
Cash and Cash Equivalents, Beginning of Year	340,612	771,446
Cash and Cash Equivalents, End of Year	$ 430,931	$ 340,612
Supplemental Information		
Cash Payments for Interest	$ -	$ 30
Cash Payments for Income Taxes	$ 1,732	$ 11,913
Settlement of accounts receivable in exchange for lots held for sale	$ 4,222	$ -

See accompanying notes to financial statements.

Note 1. Nature of Organization

Crystal Lakes Water and Sewer Association (the Association) is organized as a not for profit corporation in the State of Colorado for the purpose of promoting the general well-being of property owners in the Crystal Lakes Development and within the boundaries established in the plan for augmentation in Colorado Water Court decrees 7631-74 and 8540-77, located in Red Feather Lakes, Colorado. The Association's membership consists of property owners with diverse backgrounds from various regions across the United States. The significant activities of the Association include the acquisition of water rights and the operation and maintenance of water and sewer facilities for approximately 1,700 property owners in the development. Financing for the Association's activities is derived through membership assessments and fees from member services.

Note 2. Summary of Significant Accounting Policies

Common Property

The Association owns various common properties, including a water and sewer maintenance building, water and wastewater central plants, the lakes, and sites for future utility construction. The properties originally contributed by the developer are not reported on the accompanying financial statements. The assets contributed by the developer are primarily lakes and future utility sites.

Any properties subsequently acquired are carried at the Association's cost, net of depreciation. The Association subsequently purchased, and is carrying on the books, one-half of Catawba Lake, the upper Lone Pine Lake site, and the water and sewer maintenance building.

The Association is responsible for the repair and maintenance of dams, maintenance building and central water and wastewater facilities. The maintenance of these properties is funded by member assessments.

Member Assessments

Association members are subject to annual assessments to provide funds for the Association's operating expenses, future capital acquisitions and replacements. Any excess assessments at year end are retained by the Association for use in the succeeding year.

Allowance for Doubtful Dues and Accounts Receivable and Revenue Recognition

The Association has adopted the reserve method of accounting for uncollectible dues and accounts receivable. When membership dues become delinquent for a substantial period of time, it has been the Association's policy to file liens on the property owner's real estate located in the development. Effective January 1, 1994, Colorado statutes have made homeowner's association dues an automatic lien against the property with no formal filing required by the Association. Even so, collection efforts may be hindered by bankruptcy laws, security interests subordinated to those of other creditors, and the relative expense of collection procedures. As billings for services are done annually, any amounts due at year-end have been outstanding for one year. Due to the time the receivables have been outstanding and uncertain nature of when the balance will be collected, management has elected to exclude accounts receivable from current assets. Allowances for doubtful accounts are based on a review of the status of existing accounts coupled with past collection experience. Billings for annual assessments cover the period from June 1 through May 31. Such billings are recorded as dues and accounts receivable and revenue on June 1 of each operating year. Amounts collected prior to the assessment date are recorded as a liability in the account titled "prepaid assessments" on the balance sheet of the Association.

Note 2. Summary of Significant Accounting Policies (continued)

Property and Equipment

Depreciation is computed on a straight-line basis over the estimated useful lives of the individual assets. In general, class lives are presented below:

Class	Life in Years
Land improvements	20
Buildings and improvements	20
Machinery and equipment	5-15
Autos and trucks	5-10
Office furniture and equipment	3-5

Cash Equivalents

For purpose of the statement of cash flows, the Association considers all highly liquid investments with a maturity of three months or less to be cash equivalents.

The Association maintains its cash in bank accounts which on occasion may exceed federally insured limits of $250,000 as guaranteed by the Federal Deposit Insurance Corporation. The Association has not experienced any losses in such accounts.

Lots held for sale

On occasion, the Association will acquire lots from sheriff's sales and hold them until they can be resold. Lots are recorded at the cost of unpaid assessments, legal fees and property taxes at date of acquisition. Since the sum of these costs are generally less than the fair market value, the Association has not incurred any material impairment losses related to lots held for sale.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Advertising

Advertising is expensed as incurred. The Association did not have advertising expenses in either of the years ended May 31, 2009 and 2008.

Income Taxes

The Association may elect to be taxed as a homeowners association, or as a regular corporation, under the provisions of the Internal Revenue Code. Under current regulations, the Association is taxed as a regular corporation unless this annual election is made. As a regular corporation, membership income is exempt from taxation if certain elections are made and the Association is taxed only on its non-membership income, such as interest earnings, at regular federal and state corporate rates.

Note 2. Summary of Significant Accounting Policies (continued)

Income Taxes (continued)

Differences in income reported for financial statement purposes and income for income tax purposes may result from the following:

The Association uses the straight-line method of depreciation for financial statements while depreciation is calculated using a combination of straight-line and accelerated methods for income tax reporting. The depreciable lives of assets may be different for book and tax purposes.

The Association uses the reserve method of accounting for bad debts for financial statements, while the direct write-off method is utilized for income tax purposes.

Accrued compensated absences are not deductible for income tax purposes until paid.

In any year that the election is made to be taxed as a Homeowners Association, membership dues and general operating expenses are not taxable or deductible. Only income for special services received from members and nonmembers, and the expenses related to providing these services, are considered in computing taxable income.

In December 2008, the Financial Accounting Standard board issued FASB Staff Position (FSP) FIN 48-3 "Effective Date of FASB Interpretation No. 48 for Certain Nonpublic Enterprises." FSP FIN 48-3 permits an entity within its scope to defer the effective date of FASB Interpretation 48 (Interpretation 48), Accounting for Uncertainty in Income Taxes, to its annual financial statements for fiscal years beginning after December 15, 2008. The Association has elected to defer the application of Interpretation 48 for the year ending May 31, 2009 until the FASB issues additional guidance for nonpublic entities to follow. In the interim, if the Association had an uncertain tax position, it would use the provisions of FASB Statement 5, Accounting for Contingencies.

Reclassification

Certain prior year amounts have been reclassified to conform to current year presentation.

Date of Management's Review

In preparing the financial statements, the Association has evaluated events and transactions for potential recognition or disclosure through October 17, 2009, the date that the financial statements were available to be issued.

Note 3. Transactions with Crystal lakes Road and Recreation Association

Crystal Lakes Water and Sewer Association and Crystal Lakes Road and Recreation Association are organizations that consist primarily, but not exclusively, for the benefit of the Crystal Lake property owners. The Associations share certain administrative expenses.

	2009	2008
Balance due (to) from affiliate at May 31	$ 5,713	$ (1,134)

Note 4. Income Taxes

The Association may elect in any year to be taxed as a Homeowners' Association. This election was made for the fiscal years ending in 2009 and 2008. The Association makes the homeowners election only in these years in which it would create tax savings. The Association has incurred income tax expense of $16,182 and $13,713 for the years ending May 31, 2009 and 2008, respectively.

The Association has temporary timing differences between its books and tax methods of accounting. These items may create deferred tax liabilities or deferred tax assets. There may be no tax benefit received from the reversal of a timing difference, if the timing difference is eliminated in whole or in part in any year that the Association elects to be taxed as a Homeowners Association or is operating at a loss. It is the intent of the Association to make the Homeowners election in those years where it would minimize taxes.

Furthermore, the Association has historically operated at a level where it pays little or no income tax. Considering the relevant factors, it is highly unlikely that the Association will derive any significant future loss or benefit related to deferred taxes. Accordingly, any deferred tax assets are fully offset with a value allowance.

Note 5. Employee Benefit Plans

The Crystal Lakes Water and Sewer Association jointly employs certain personnel with the Crystal Lakes Road and Recreation Association. The following is a summary of employee benefit plans currently in effect:

Compensated Absences

Vacation leave - The Association presently has a policy that allows full-time employees ten working days annual vacation after one full year of service. After five years of service, employees earn fifteen working vacation days annually. After ten years of service, employees earn twenty working vacation days annually. Vacation pay is a vested benefit.

Compensated Absences (continued)

Sick leave - Full-time employees may accumulate one day of compensated sick leave for each month of service to the Association. Employees may accumulate a maximum of thirty days of unused sick leave. Sick leave is not a vested benefit.

Paid holidays - Full-time employees who are required to work on holidays may elect to take one day off or to be paid for the holiday at one and one-half times their hourly rate, in addition to being paid for the holiday worked.

Medical Benefits

The Association provides health, life and dental coverage for all full-time employees; dependent coverage for full-time employees is available at the employee's expense. The cost of providing benefits is shared equally with the Crystal Lakes Road and Recreation Association.

Pension Plan

The Association has a defined contribution pension plan (the plan) covering all full-time employees who have completed three full years of service to the Association. The Association makes a contribution to the plan each year equal to 6% of all eligible employees' annual compensation. Employer contributions are fully vested for employees that earn more than $500 per year and have reached three years of service. The Association contributed $4,389 and $5,692 to the plan for the years ending May 31, 2009 and 2008, respectively.

Note 6. Restricted Member's Equity

Subdivision Improvement Agreement (S.I.A.)

On March 7, 1982, Crystal Lakes Development Company (the Developer) entered into an agreement with Larimer County. Under this agreement, the Developer pledged certain lots in the Crystal Lakes subdivision filings to secure obligations for subdivision improvements. The Developer defaulted on this agreement.

Crystal Lakes Road and Recreation Association and Crystal Lakes Water and Sewer Association entered into an agreement dated December 18, 1985, with Larimer County and the Developer. This agreement transferred title to most of the properties, pledged under the earlier agreement, to the County, and left the Associations responsible for the performance of the improvements after the sale of the properties, to the extent funds are available from the sales.

In September 1992, the Associations negotiated a settlement agreement with Larimer County that modified the terms of the 1985 agreement. Under the terms of the agreement, the remaining proceeds to be used for the construction or improvement of certain roads, and water and sewer facilities required under the original agreement. The balance of funds to be expended under this agreement are $113,161 and $111,640 as of May 31, 2009 and 2008, respectively.

Mine Permit

The Association maintains a certificate of deposit in the amount of $25,000 as a bond for a mine permit. The purpose of the bond is to ensure reclamation of the land by the Association. Since the funds are restricted by the state, they have been separately presented as a non-current asset.

The Association has an obligation to reclaim certain property currently used as a gravel pit. The Association has not recognized an obligation for the reclamation as the Association cannot reasonably estimate the fair value of reclamation due to the uncertain remaining useful life of the property.

Note 7. Property and Equipment

Property and equipment are summarized as follows:

	2009	2008
Land and improvements	$ 326,556	$ 321,795
Buildings and improvements	133,276	127,473
Machinery and equipment	89,362	109,702
Autos and trucks	115,811	107,750
Office furniture and equipment	26,294	26,294
Water rights	15,054	15,054
Construction in progress	274,610	196,850
Subtotal	980,963	904,918
Accumulated depreciation and amortization	(424,794)	(415,094)
Property and Equipment, net	$ 556,169	$ 489,824

Note 8. Designated Member's Equity and Future Major Repairs and Replacements

The Association's governing documents do not require the accumulation of funds to finance future major repairs and replacements. The Board of Directors, however, has established a fund (the replacement fund) to accumulate funds for the estimated costs of future major repairs and replacements, required projects and for the expansion of existing common property. There was $36,104 and $38,973 in the replacement fund as of May 31, 2009 and 2008, respectively.

The Association is obligated by the augmentation plan to construct a water storage reservoir. The feasibility study completed in April 1993, estimated the Association's cost for the reservoir at $2.0 million. Management expects to fund this project through a $1.5 million loan from the Colorado Water Conservation Board for a 30 year term with a projected interest rate of 5% or less. Repayment of the loan will be funded by future membership assessments and fees. Beginning in 1994, the Association approved a capital projects special assessment for the construction of Upper Lone Pine Lake. The assessment is $70 per year, per lot and resulted in assessments of $115,846 and $115,921 during the years ended May 31, 2009 and 2008, respectively. With transfers from the operating bank account, the balance in the special assessment fund was $724,621 and $682,300 as of May 31, 2009 and 2008, respectively. As a result of feasibility studies performed, the Association has determined a need to pursue alternative options to meet the requirements of the augmentation plan. An impairment loss has not been incurred due with this change as the alternative option selected will be as a result of work already performed.

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. The Association will fund for such major repairs and replacements over the estimated useful lives of the components based on the study's estimate of future replacement costs, considering amounts previously accumulated in the replacement fund. Actual expenditures, however, may vary from the estimated amounts and the variations may be material. Therefore, amounts accumulated in the replacement fund may not be adequate to meet future needs.

SUPPLEMENTARY INFORMATION

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

SUPPLEMENTARY INFORMATION ON FUTURE REPAIRS AND REPLACEMENTS (UNAUDITED)
Years Ended May 31, 2009 and 2008

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. Replacement costs were based on the estimated costs to repair to replace the common property at May 31, 2009 and 2008. Estimated current replacement costs do not take into account the effects of inflation between the time of the study and the date the components will require repair or replacement. Not included in this schedule are the costs of the Upper Lone Pine/Lower Lone Pine Lake project explained in Note 8.

The following information is based on the study and presents significant information about the components of common property:

FY 2008-2009	Estimated Remaining Useful Life (Years)	Estimated Current Repair or Replacement Cost
Buildings		
W and S Building	25	$ 96,000
11th Filing Well House	1	25,000
6th Filing Water and Sewer System	15	200,000
Furnishings and Equipment		
Computer systems	3	27,000
New system replaced annually to keep equipment updated		
Office furniture	4	10,000
Sound system	3	1,500
Radios		
Pac sets	3	3,125
Base systems	3	1,800
Hotsy steam cleaner	3	2,500
Major Equipment		
Vehicles	2	13,750
Heavy equipment	7	161,000
Shop equipment	5	28,000
Fuel tanks	8	1,500
Low profile water tanks 6th filing	17	15,000
Storage tanks for non-potable water resale	6	5,000
Culverts installed below Panhandle Dam	10	7,500
	Total	$ 598,675

See independent auditor's report and accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

SUPPLEMENTARY INFORMATION ON FUTURE REPAIRS
AND REPLACEMENTS (UNAUDITED)
Years Ended May 31, 2009 and 2008
(continued)

FY 2007-2008	Estimated Remaining Useful Life (Years)	Estimated Current Repair or Replacement Cost
Buildings		
W and S building	26	$ 96,000
11th Filing well house	2	25,000
6th filing water and sewer system	16	200,000
Furnishings and Equipment		
Computer systems	3	27,000
New system replaced annually to keep equipment updated		
Office equipment	4	10,000
Sound system	4	3,000
Radios		
Pac sets	3	3,500
Base systems	3	3,600
Hotsy steam cleaner	4	2,500
Major Equipment		
Vehicles	2	14,750
Heavy equipment	8	161,000
Shop equipment	5	28,000
Fuel tank	8	1,500
Low profile water tanks 6th filing	18	15,000
Storage tanks for non-potable water resale	7	5,000
	Total	$ 595,850

See independent auditor's report and accompanying notes to financial statements.

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

SUPPLEMENTARY SCHEDULE OF ACTIVITY IN MEMBERS' EQUITY
Year Ended as of May 31, 2009

	Designated			Restricted				
	Upper Lone Pine Lake	Major Reserve	Total	Mine Reclamation	Subdivision Improvement Agreement	Total	Undesignated	Total Equity
Beginning balance	$ 682,300	$ 38,973	$ 721,273	$ 25,000	$ 86,640	$ 111,640	$ 730,825	$ 1,563,738
Net Income	-	-	-	-	-	-	132,634	132,634
Revenues	115,846	-	115,846	-	-	-	(115,846)	-
Interest Income	13,503	190	13,693	-	1,521	1,521	(15,214)	-
Transfers	-	-	-	-	-	-	-	-
Expenditures	(87,028)	(3,059)	(90,087)	-	-	-	90,087	-
Ending balance	$ 724,621	$ 36,104	$ 760,725	$ 25,000	$ 88,161	$ 113,161	$ 822,486	$ 1,696,372

See independent auditor's report and accompanying notes to financial statements.

Rickards & Long Rulon, LLP
Certified Public Accountants and Consultants

October 17, 2009

Board of Directors
Crystal Lakes Water and Sewer Association
Red Feather Lakes, CO

In planning and performing our audit of the financial statements of Crystal Lakes Water and Sewer Association as of and for the year ended May 31, 2009, in accordance with auditing standards generally accepted in the United States of America, we considered Crystal Lakes Water & Sewer's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. Accordingly, we do not express an opinion on the effectiveness of the Association's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control that we consider to be significant deficiencies and other deficiencies that we consider to be material weaknesses.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control. We consider the following deficiencies to be significant deficiencies in internal control:

- While management of the Organization is knowledgeable about accounting practices, management lacks the ability to prepare financial statements in accordance with generally accepted accounting principles (GAAP) and lacks the ability to identify financial statements disclosures required by GAAP. Management is dependent on the auditors for guidance regarding the financial statement and disclosures required by GAAP. The auditor cannot be part of your internal control system over financial reporting nor a compensating control.

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- The basic premise of a good system of internal controls is that no one employee should have access to both the physical assets and the related accounting records, or to all phases of a transaction. Although the size of the Association's accounting staff limits the extent of the segregation of duties, we wanted to bring to your attention issues of segregation of duties we noted during our engagement.
    - The manager is responsible for approving all disbursements and has signature authority over the Association bank accounts. Ideally, these functions would be segregated. The Association is compensating for this weakness by having the treasurer review all disbursements on a monthly basis. Ideally, this review would include ensuring that source documentation shows proof of receipt of merchandise or services.
    - The Association's accountant prepares checks for disbursement, mails the signed checks, reconciles the bank accounts, makes deposits and has access to the general ledger and subsidiary ledgers. While employment of additional staff may be cost prohibitive to overcome this significant deficiency, the board of directors should be aware of the condition and monitor the Associations' activities with the lack of segregation in mind.

A material weakness is a significant deficiency, or a combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control. We believe that the following deficiency constitutes a material weakness.

- We proposed several audit adjustments required to present the financial statements in accordance with generally accepted accounting principles. The journal entries included, in general, adjustments to:

    1. reclassify credit memos to deferred revenue ($1,000)
    2. record general provision for uncollectible accounts receivable ($2,000)
    3. reclassify sale on lots to correct account ($10,000)
    4. accrue accounts payable ($37,000)

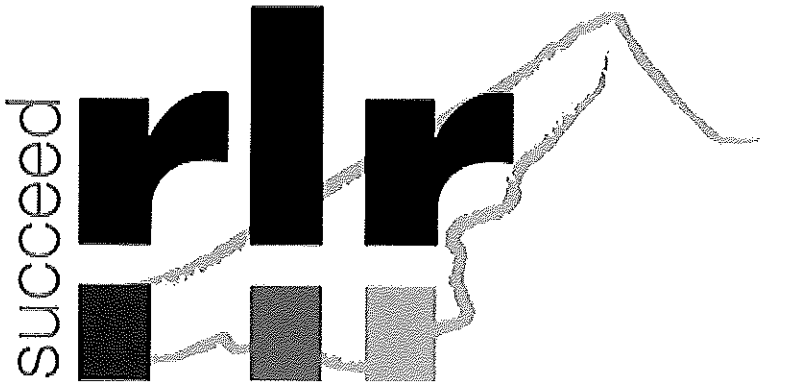
This communication is intended solely for the information and use of management, the Board of Directors and others within the organization, and is not intended to be and should not be used by anyone other than these specified parties.

Rickards, Long & Rulon, LLP
Fort Collins, Colorado

Crystal Lakes Water & Sewer Performance Review

For the period ending 05/31/2009

Provided By



Rickards Long & Rulon, LLP

A. Scott Rulon
970-493-6869

ANALYTICAL PROCEDURE WORKSHEET

Report prepared for: Crystal Lakes Water & Sewer

Statement of Activities	05/31/2007	05/31/2008	Actual 05/31/2009
Program Service Revenue	$399,269	$456,403	$462,982
Contributions	$0	$0	$0
Government Grants	$0	$0	$0
Investment Revenue	$38,126	$44,114	$19,018
Other Operating Revenue	$78,107	$12,409	$14,558
Net Assets Released From Restrictions	$0	$0	$0
Total Unrestricted Revenue	$515,502	$512,926	$496,558
Program Service Expenses	$307,443	$328,544	$338,292
Gross Yield	$208,059	$184,382	$158,266
Gross Program Margin	40.36%	35.95%	31.87%
Fundraising Expenses	$0	$0	$0
Administration Expenses	$0	$0	$0
Depreciation and Amortization	$37,952	$33,036	$29,314
Interest Expense	$400	$0	$0
Other Operating Expenses	$0	$0	$0
Total Operating Expenses	$345,795	$361,580	$367,606
Operating Yield (Net Operating Gain/Loss)	$169,707	$151,346	$128,952
Operating Margin	32.92%	29.51%	25.97%
Other Inflows	$17,256	$0	$6,540
Other Outflows	$0	$633	$2,858
Total Change In Net Assets	$186,963	$150,713	$132,634

Statement of Financial Position			
Total Cash and Cash Equivalents	$138,546	$276,699	$282,045
Total Receivables	$0	$0	$0
Inventory	$3,973	$9,035	$2,210
Other Current Assets	$67,736	$13,258	$9,271
Total Current Assets	$210,255	$298,992	$293,526
Gross Fixed Assets	$766,496	$904,918	$980,963
Accumulated Depreciation	$416,045	$415,094	$424,794
Net Fixed Assets	$350,451	$489,824	$556,169
Investment Assets	$0	$0	$0
Other Assets	$877,443	$897,739	$896,163
Total Assets	$1,438,149	$1,686,555	$1,745,858
Payables	$5,478	$110,509	$36,735
Other Current Liabilities	$19,646	$12,308	$12,751
Total Current Liabilities	$25,124	$122,817	$49,486
Long Term Liabilities	$0	$0	$0
Total Liabilities	$25,124	$122,817	$49,486
Total Net Assets	$1,413,025	$1,563,738	$1,696,372

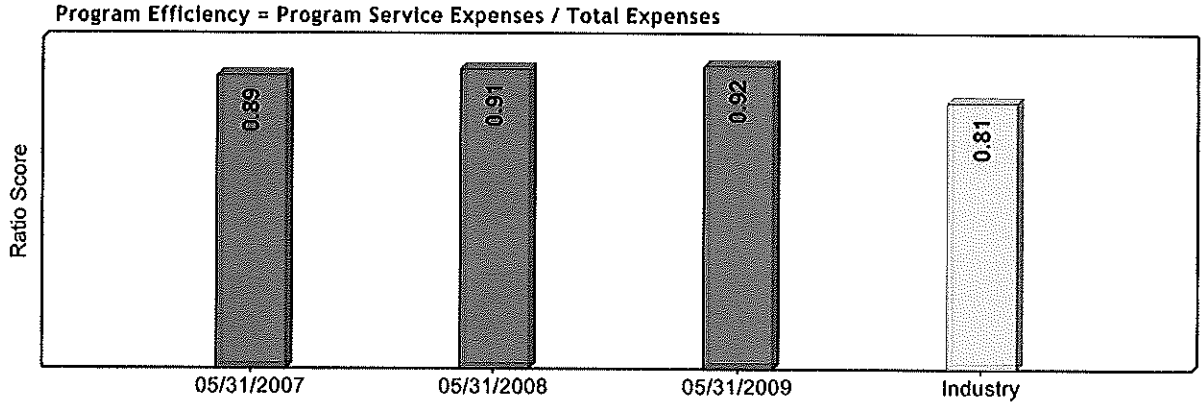
Report prepared for: Crystal Lakes Water & Sewer
Sector: L50 - Homeowners & Tenants Associations
Revenue: Less than $1M
Periods: 12 months against the same 12 months from the previous year

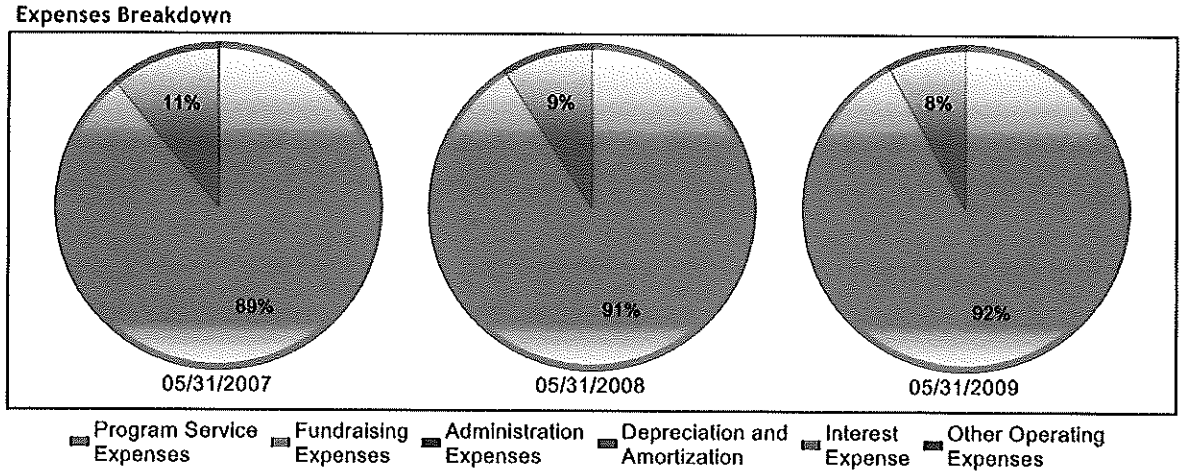
OPERATIONAL ANALYSIS

★★★★★

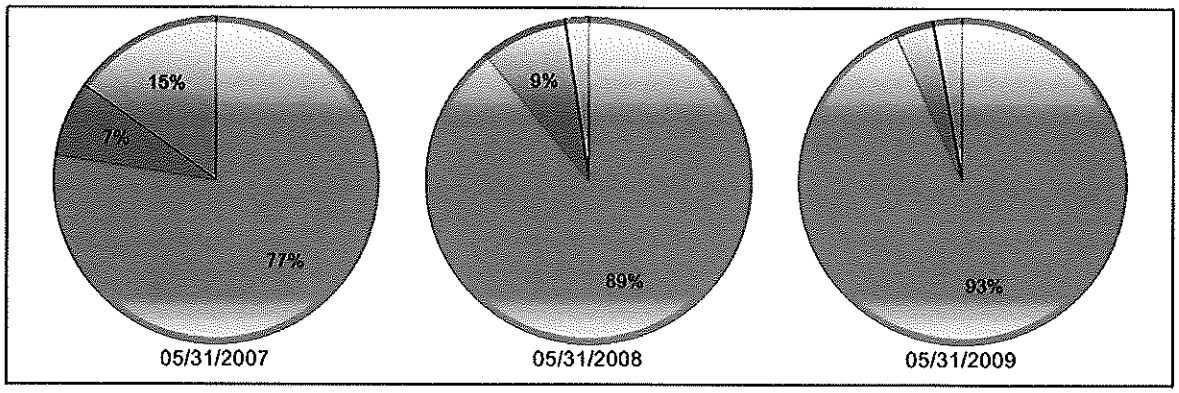
Generally, how is the organization managing money with regard to its sector and mission?

The program efficiency and revenue composition have both remained constant since last period and they both continue to be relatively high for this sector. The good program efficiency rating shows that the organization is spending a good amount of its money on programs which generally support the HOA's strategic missions. The revenue composition statistic indicates that organization produces more program revenue, relative to total revenue, than sector peers. More importantly, compared to sector peers, the organization was able to use its program revenue to cover a higher percentage of operating costs. In general (unless an organization normally generates outside funding), it is better to rely on program revenue to cover operating expenses because program revenue is usually a predictable and somewhat consistent revenue stream.





Revenue Breakdown



FINANCIAL ANALYSIS

★★★★★ LIQUIDITY

★★★☆☆ REVENUE

★★★★★ BORROWING

LIQUIDITY ★★★★★

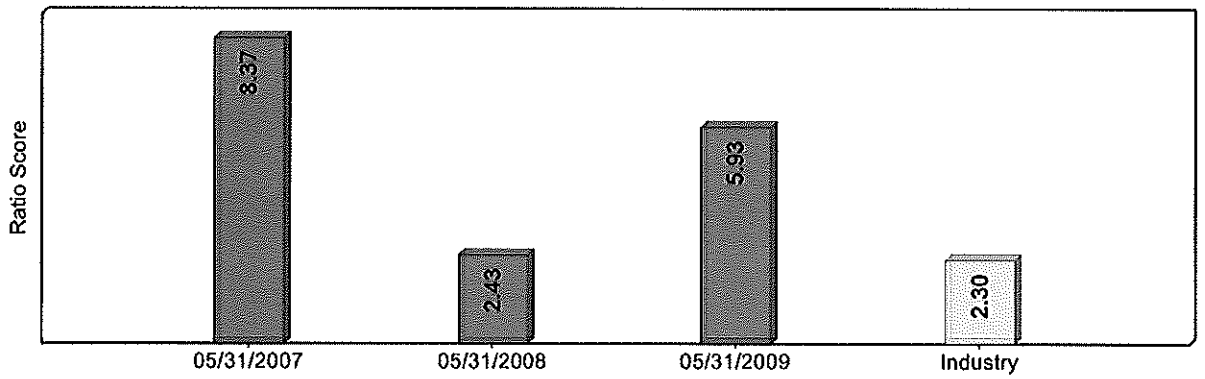
Generally, what is the organization's ability to meet obligations as they come due?

Liquidity is a quickly changing condition. It is important to remember that we are only evaluating two distinct Balance Sheet dates in this area (only two specific days). Therefore, the analysis in this area is quite important, but liquidity conditions are apt to change rapidly.

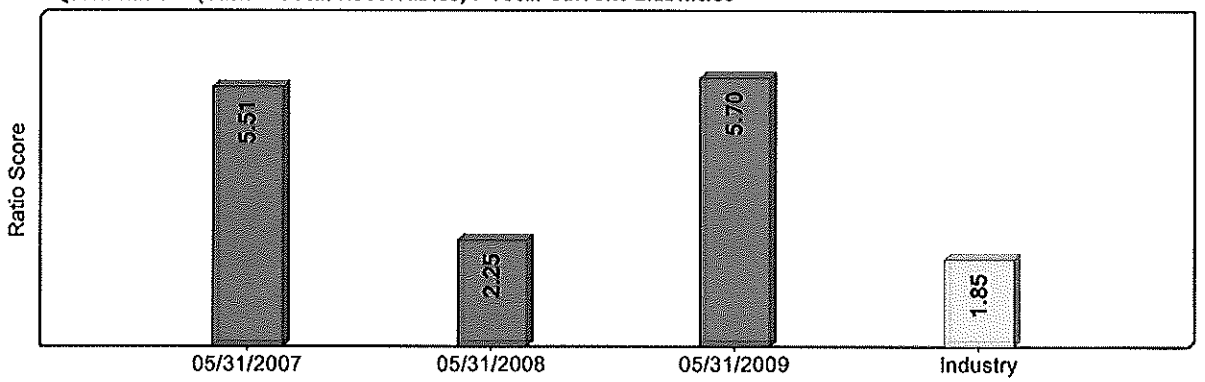
The organization's liquidity position is strong and it has improved since last period. Trends are quite important to this area of analysis since liquidity conditions tend to shift quickly. Basically, the organization is **generally** better able to meet obligations than last period according to the standard measures we use to evaluate this area. Interestingly, overall liquidity improved even though operating yield dollars fell from last period. This demonstrates that organizations don't **necessarily** need higher operating yield levels to push liquidity higher in the short run.

It is also interesting to note that both the scope (as measured by the current ratio) and the composition (as measured by the quick ratio) of the liquidity base have shifted higher. This indicates a balanced improvement, which is good. The one negative that has been detected is the drop in operating margin, which will be discussed shortly. Drops in operating margin will not be good for liquidity in the **long run**.

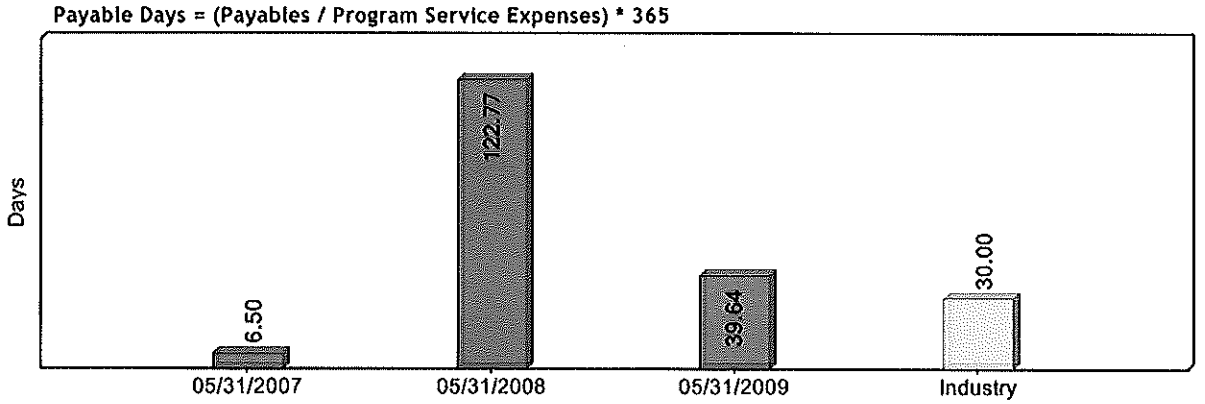
Current Ratio = Total Current Assets / Total Current Liabilities



Quick Ratio = (Cash + Total Receivables) / Total Current Liabilities



Payable Days = (Payables / Program Service Expenses) * 365



REVENUE

Are revenues growing and satisfactory?

It is clear that the organization's revenues have stayed flat this period. **Generally**, HOAs prefer to move revenues forward at all times, but short-run revenue movements, by themselves, are not crucial.

BORROWING

Is the organization borrowing responsibly?

Revenues stayed about the same this period, as total debt went down. This is a good result since the organization is now achieving about the same level of revenues with less overhead in the form of debt. **Maintaining a lower level of debt can help improve operating margins in the future.**

SECTOR SCORECARD

Financial Indicator	Current Period	Sector Range	Distance from Sector
Program Efficiency = Program Service Expenses / Total Expenses	0.92	0.74 to 0.87	+5.75%
Revenue Composition = Unrestricted Program Service Revenue / Total Unrestricted Revenue	0.93	0.35 to 0.60	+55.00%
Operating Reliance = Unrestricted Program Service Revenue / Total Expenses	1.26	0.40 to 0.60	+110.00%
Current Ratio = Total Current Assets / Total Current Liabilities	5.93	1.30 to 3.30	+79.70%
Quick Ratio = (Cash + Total Receivables) / Total Current Liabilities	5.70	1.10 to 2.60	+119.23%
Payable Days = (Payables / Program Service Expenses) * 365	39.64 Days	15.00 to 45.00 Days	0.00%

Explanation: Shows the basic relationship between program expenses and total expenses. The best outcome would be a ratio of 1, where all amounts paid by a nonprofit would go towards "programs". This ratio is typically keenly watched by employees, managers, Board members, donors, and contributors. It tends to be one of the more important metrics that many nonprofits use in assessing performance.

Explanation: This metric shows the composition of the organization's revenue stream. Specifically, it shows how many cents in program revenue there are for each dollar of revenue generated. Some people like to look at this to see how dependent the entity is on outside funding.

Explanation: Shows how able a nonprofit entity is to pay for total expenses from program revenues alone. Many times (although not always) program revenues are more predictable and consistent sources of money and, therefore, it is a point of interest to see how able a nonprofit is to liquidate expenses from just program revenue. The ideal score would be 1 or even above 1 in very rare cases.

Explanation: Generally, this metric measures the overall liquidity position of an organization. It is certainly not a perfect barometer, but it is a good one. Watch for big decreases in this number over time. Make sure the accounts listed in "current assets" (numerator) are collectible. The higher the ratio, the more liquid the organization is.

Explanation: This is another good indicator of liquidity, although by itself, it is not a perfect one. If there are receivable accounts included in the numerator, they should be collectible. Look at the length of time the organization has to pay the amount listed in the denominator (current liabilities). The higher the number, the stronger the organization.

Explanation: This ratio shows the average number of days that lapse between the purchase of material and labor, and payment for them. It is a rough measure of how timely an organization is in meeting payment obligations.

CRYSTAL LAKES
WATER AND SEWER ASSOCIATION

FINANCIAL STATEMENTS

YEARS ENDED MAY 31, 2008 AND 2007

CRYSTAL LAKES WATER AND SEWER ASSOCIATION

TABLE OF CONTENTS

Rickards Long & Rulon, LLP
Certified Public Accountants and Consultants

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Crystal Lakes Water and Sewer Association
Red Feather Lakes, Colorado

We have audited the accompanying balance sheets of Crystal Lakes Water and Sewer Association as of May 31, 2008 and 2007, and the related statements of revenues and expenses, changes in members' equity and cash flows for the years then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Crystal Lakes Water and Sewer Association as of May 31, 2008 and 2007, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The supplementary information about future repairs and replacements on page 12 and13 is not a required part of the basic financial statements but is supplementary information required by the American Institute of Certified Public Accountants. We have compiled the supplementary information from information that is the representation of management of Crystal Lakes Water and Sewer Association, without audit or review. Accordingly, we do not express an opinion or any other form of assurance on the supplementary information.

RICKARDS LONG & RULON, LLP

Rickards Long & Rulon, LLP
Fort Collins, Colorado
October 17, 2008

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CRYSTAL LAKES WATER AND SEWER ASSOCIATION
BALANCE SHEETS
MAY 31, 2008 AND 2007

	2008	2007
ASSETS		
Current Assets		
Cash and cash equivalents	$ 276,699	$ 138,546
Interest receivable	9,242	5,014
Due from affiliated entity	-	58,782
Prepaid expenses	4,016	3,940
Inventory	9,035	3,973
Total Current Assets	298,992	210,255
Noncurrent Assets		
Restricted cash	25,000	25,000
Designated cash	63,913	632,900
Certificate of deposit, designated	769,000	200,000
Dues and accounts receivable, net of allowance for doubtful accounts of $11,000 for May 31, 2008 and 2007.	28,195	15,987
Lots held for sale	11,631	3,556
Property and equipment, net	489,824	350,451
Total Noncurrent Assets	1,387,563	1,227,894
TOTAL ASSETS	$ 1,686,555	$ 1,438,149
LIABILITIES		
Current Liabilities		
Accounts payable	$ 110,509	$ 5,478
Accrued expenses	9,661	19,646
Prepaid assessments	1,513	-
Due to affiliated entity	1,134	-
TOTAL CURRENT LIABILITIES	122,817	25,124
MEMBERS' EQUITY		
Undesignated	730,825	594,115
Designated for future repairs and replacements	721,273	709,775
Temporarily restricted	111,640	109,135
TOTAL MEMBERS' EQUITY	1,563,738	1,413,025
TOTAL LIABILITIES AND MEMBERS' EQUITY	$ 1,686,555	$ 1,438,149

See accompanying notes to financial statements

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
STATEMENTS OF REVENUES AND EXPENSES
YEARS ENDED MAY 31, 2008 AND 2007

	2008	2007
REVENUES		
Membership dues and assessments	$ 389,060	$ 399,269
Interest income	44,114	38,126
Gain on sale of lots	-	9,256
Gain on sale of assets	-	8,000
Other	79,752	78,107
TOTAL REVENUES	512,926	532,758
EXPENSES		
Salaries	122,957	119,036
Payroll taxes	10,638	10,245
Depreciation	33,036	37,952
Office expense	38,846	41,364
Employee benefits	27,553	28,141
Insurance	23,278	25,180
System operations	9,924	28,209
Professional services	35,850	10,922
Vehicle maintenance	3,225	6,739
System maintenance	26,154	17,172
Loss on sale of assets	633	-
Utilities	7,679	4,187
Repairs and maintenance	8,683	3,199
Bad debts	-	1,199
Miscellaneous	14	60
Income tax expense	13,713	11,790
Interest expense	30	400
TOTAL EXPENSES	362,213	345,795
EXCESS OF REVENUE OVER EXPENSES	$ 150,713	$ 186,963

See accompanying notes to financial statements

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
STATEMENTS OF CHANGES IN MEMBERS' EQUITY
YEARS ENDED MAY 31, 2008 AND 2007

	Total	Undesignated	Designated For Repair and Replacement	Temporarily Restricted
MEMBERS' EQUITY - May 31, 2006	$ 1,226,062	$ 533,460	$ 587,340	$ 105,262
Excess revenues over expenses	186,963	186,963	-	-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(117,176)	117,176	-
Interest		(19,953)	19,953	-
Expenditures for major repairs and replacements	-	14,694	(14,694)	-
Revenue and expenses for subdivision improvement agreement (SIA):				
Interest income	-	(3,873)	-	3,873
MEMBERS' EQUITY - May 31, 2007	$ 1,413,025	$ 594,115	$ 709,775	$ 109,135
Excess revenues over expenses	150,713	150,713	-	-
Allocated to future repairs and replacements:				
Collection for special assessments	-	(115,921)	115,921	-
Interest	-	(5,757)	5,757	-
Expenditures for major repairs and Replacements	-	159,132	(159,132)	-
Transfers	-	(48,952)	48,952	-
Revenue and expenses for subdivision improvement agreement (SIA):				
Interest income	-	(2,505)	-	2,505
MEMBERS' EQUITY-May 31, 2008	$ 1,563,738	$ 730,825	$ 721,273	$ 111,640

See accompanying notes to financial statements

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
STATEMENTS OF CASH FLOWS
YEARS ENDED MAY 31, 2008 AND 2007

CASH FLOWS FROM OPERATING ACTIVITIES		
Excess of revenues over expenses	$ 150,713	$ 186,963
Adjustments to reconcile excess of revenues over expenses to net cash provided by operating activities		
Depreciation expense	33,036	37,952
Loss (gain) on sale of property and equipment	633	(8,000)
(Gain) on sale of lots	-	(9,256)
(Increase) decrease in allowance for doubful accounts	-	(1,000)
(Increase) decrease in operation assets		
Dues and accounts receivable	(12,208)	8,321
Interest receivable	(4,228)	(4,149)
Prepaid expenses	(76)	1,522
Inventory	(5,062)	(2,470)
Due from affiliated entity	58,782	(46,546)
Increase (decrease) in operating liabilities		
Accounts payable	105,031	(4,419)
Accrued expenses	(9,985)	6,631
Prepaid assessments	1,513	(3,940)
Due to affiliated entity	1,134	-
Net Cash Provided By Operating Activities	319,283	161,609
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of certificates of deposit	(769,000)	(200,000)
Proceeds from maturities of certificates of deposits	200,000	-
Acquisitions of property and equipment	(173,042)	(12,470)
Proceeds from sales of property and equipment	-	8,000
Acquistions of lots	(8,075)	-
Proceeds from sale of lots	-	26,360
Notes receivable	-	380
Net Cash (Used) by Investing Activities	(750,117)	(177,730)
CASH FLOWS FROM FINANCING ACTIVITIES		
Payments on note payable	-	(7,639)
Net Cash (Used) by Financing Activities	-	(7,639)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(430,834)	(23,760)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	771,446	795,206
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 340,612	$ 771,446
SUPPLEMENTAL INFORMATION		
CASH PAYMENTS FOR INTEREST	$ 30	$ 400
CASH PAYMENTS FOR INCOME TAXES	$ 11,913	$ 3,240

See accompanying notes to financial statements

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
NOTES TO FINANCIAL STATEMENTS

NOTE 1: NATURE OF ORGANIZATION

Crystal Lakes Water and Sewer Association (the Association) is organized as a not for profit corporation in the State of Colorado for the purpose of promoting the general well-being of property owners in the Crystal Lakes Development and within the boundaries established in the plan for augmentation in Colorado Water Court decrees 7631-74 and 8540-77, located in Red Feather Lakes, Colorado. The Association's membership consists of property owners with diverse backgrounds from various regions across the United States. The significant activities of the Association include the acquisition of water rights and the operation and maintenance of water and sewer facilities for approximately 1,700 property owners in the development. Financing for the Association's activities is derived through membership assessments and fees from member services.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Common Property

The Association owns various common properties, including a water and sewer maintenance building, water and wastewater central plants, the lakes, and sites for future utility construction. The properties originally contributed by the developer are not reported on the accompanying financial statements. The assets contributed by the developer are primarily lakes and future utility sites.

Any properties subsequently acquired are carried at the Association's cost net of depreciation. The Association subsequently purchased, and is carrying on the books, one-half of Catawba Lake, the upper Lone Pine Lake site, and the water and sewer maintenance building.

The Association is responsible for the repair and maintenance of dams, maintenance building and central water and wastewater facilities. The maintenance of these properties is funded by member assessments.

Member Assessments

Association members are subject to annual assessments to provide funds for the Association's operating expenses, future capital acquisitions and replacements. Any excess assessments at year end are retained by the Association for use in the succeeding year.

Allowance for Doubtful Accounts Receivable and Revenue Recognition

The Association has adopted the reserve method of accounting for uncollectible receivables. When membership dues become delinquent for a substantial period of time, it has been the Association's policy to file liens on the property owner's real estate located in the development. Effective January 1, 1994, Colorado statutes have made homeowner's association dues an automatic lien against the property with no formal filing required by the Association. Even so, collection efforts may be hindered by bankruptcy laws, security interests subordinated to those of other creditors, and the relative expense of collection procedures. As billings for services are done annually, any amounts due at year-end have been outstanding for one year. Due to the time the receivables have been outstanding and uncertain nature of when the balance will be collected, management has elected to exclude accounts receivable from current assets. Allowances for doubtful accounts are based on a review of the status of existing accounts coupled with past collection experience. Billings for annual assessments cover the period from June 1 through May 31. Such billings are recorded as receivables and revenue on June 1 of each operating year. Amounts collected prior to the assessment date are recorded as a liability in the account titled "prepaid dues" on the balance sheet of the Association.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

Property and Equipment

Depreciation is computed on a straight-line basis over the estimated useful lives of the individual assets. In general, class lives are presented below:

Class	Life in Years
Land improvements	20
Buildings and improvements	20
Machinery and equipment	5-15
Autos and trucks	5-10
Office furniture and equipment	3-5

Cash Equivalents

For purpose of the statement of cash flows, the Association considers all highly liquid investments with a maturity of three months or less to be cash equivalents.

The Association maintains its cash in bank accounts which exceed federally insured limits as guaranteed by the Federal Deposit Insurance Corporation. The Association has not experienced any losses in such accounts.

Lots held for sale

On occasion the Association will acquire lots from sheriff's sales and hold them until they can be resold. Lots are recorded at the cost of unpaid assessments, legal fees and property taxes at date of acquisition. Since the sum of these costs are generally less than the fair market value, the Association has not incurred any impairment losses related to lots held for sale.

Estimates

The preparation of financial statements in conformity with United States generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Income Taxes

The Association may elect to be taxed as a homeowners association, or as a regular corporation, under the provisions of the Internal Revenue Code. Under current regulations, the Association is taxed as a regular corporation unless this annual election is made. As a regular corporation, membership income is exempt from taxation if certain elections are made and the Association is taxed only on its non-membership income, such as interest earnings, at regular federal and state corporate rates.

Differences in income reported for financial statement purposes and income for income tax purposes may result from the following:

The Association uses the straight-line method of depreciation for financial statements while depreciation is calculated using a combination of straight-line and accelerated methods for income tax reporting. The depreciable lives of assets may be different for book and tax purposes.

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

The Association uses the reserve method of accounting for bad debts for financial statements while the direct write-off method is utilized for income tax purposes.

The Association records the gain on the sale of a lot in the year sold for financial statements while the installment method is utilized for income taxes.

Accrued compensated absences are not deductible for income tax purposes until paid.

In any year that the election is made to be taxed as a Homeowners Association, membership dues and general operating expenses are not taxable or deductible. Only income for special services received from members and nonmembers, and the expenses related to providing these services, are considered in computing taxable income.

NOTE 3: RELATED PARTY TRANSACTIONS

Crystal Lakes Water and Sewer Association and Crystal Lakes Road and Recreation Association are organizations that consist primarily, but not exclusively, for the benefit of the Crystal Lake property owners. The Associations share certain administrative expenses.

	2008	2007
Balance due (to) from affiliate at May 31	($1,134)	$58,782

NOTE 4: INCOME TAXES

The Association may elect in any year to be taxed as a Homeowners' Association. This election was made for the fiscal years ending in 2008 and 2007. The Association makes the homeowners election only in these years in which it would create tax savings. The Association has incurred income tax expense of $13,713 for 2008 and $11,790 for 2007.

The Association has temporary timing differences between its books and tax methods of accounting. These items may create deferred tax liabilities or deferred tax assets. There may be no tax benefit received from the reversal of a timing difference if the timing difference is eliminated in whole or in part in any year that the Association elects to be taxed as a Homeowners Association or is operating at a loss. It is the intent of the Association to make the Homeowners election in those years where it would minimize taxes. Furthermore, the Association has historically operated at a level where it pays little or no income tax. Considering the relevant factors, it is highly unlikely that the Association will derive any significant future loss or benefit related to deferred taxes. Accordingly, any deferred tax assets are fully offset with a value allowance.

NOTE 5: EMPLOYEE BENEFIT PLANS

The Crystal Lakes Water and Sewer Association jointly employs certain personnel with the Crystal Lakes Road and Recreation Association. The following is a summary of employee benefit plans currently in effect:

Compensated Absences

Vacation leave - The Association presently has a policy that allows full-time employees ten working days annual vacation after one full year of service. After five years of service, employees earn fifteen working vacation days annually. After 10 years of service, employees earn twenty working vacation days annually. Vacation pay is a vested benefit.

Sick leave - Full-time employees may accumulate one day of compensated sick leave for each month of service to the Association. Employees may accumulate a maximum of thirty days of unused sick leave. Sick leave is not a vested benefit.

Paid holidays - Full-time employees who are required to work on holidays may elect to take one day off or to be paid for the holiday at one and one-half times their hourly rate, in addition to being paid for the holiday worked.

Medical Benefits

The Association provides health, life and dental coverage for all full-time employees; dependent coverage for full-time employees is available at the employee's expense. The cost of providing benefits is shared equally with the Crystal Lakes Road and Recreation Association.

Pension Plan

The Association has a defined contribution pension plan (the plan) covering all full-time employees who have completed one full year of service to the Association. The Association makes a contribution to the plan each year equal to 6% of all eligible employees' annual compensation. Employer contributions are fully vested for employees that earn more than $500 per year and have reached three years of service. The Association contributed $5,692 and $5,314 to the plan for the years ending May 31, 2008 and 2007, respectively.

NOTE 6: RESTRICTED MEMBERS' EQUITY

Subdivision Improvement Agreement (S.I.A.)

On March 7, 1982, Crystal Lakes Development Company (the Developer) entered into an agreement with Larimer County. Under this agreement, the Developer pledged certain lots in the Crystal Lakes subdivision filings to secure obligations for subdivision improvements. The Developer defaulted on this agreement.

Crystal Lakes Road and Recreation Association and Crystal Lakes Water and Sewer Association entered into an agreement dated December 18, 1985, with Larimer County and the Developer. This agreement transferred title to most of the properties, pledged under the earlier agreement, to the County, and left the Associations responsible for the performance of the improvements after the sale of the properties, to the extent funds are available from the sales.

NOTE 6: RESTRICTED MEMBERS' EQUITY (continued)

In September 1992, the Associations negotiated a settlement agreement with Larimer County that modified the terms of the 1985 agreement. Under the terms of the agreement, the remaining proceeds to be used for the construction or improvement of certain roads, and water and sewer facilities required under the original agreement. The balance of funds to be expended under this agreement are $111,640 and $109,135 as of May 31, 2008 and 2007, respectively.

Mine Permit

The Association maintains a certificate of deposit in the amount of $25,000 as a bond for a mine permit. The purpose of the bond is to ensure reclamation of the land by the Association. Since the funds are restricted by the state, they have been separately presented as a non-current asset.

The Association has an obligation to reclaim certain property currently used as a gravel pit. The Association has not recognized an obligation for the reclamation as the Association cannot reasonably estimate the fair value of reclamation due to the uncertain remaining useful life of the property.

NOTE 7: PROPERTY AND EQUIPMENT

Property and equipment are summarized as follows:

	2008	2007
Land and improvements	$ 321,795	$ 201,799
Buildings and improvements	127,473	112,339
Machinery and equipment	109,702	120,132
Autos and trucks	107,750	116,355
Office furniture and equipment	26,294	24,896
Water rights	15,054	15,054
Construction in progress	196,850	175,921
Subtotal	904,918	766,496
Accumulated depreciation and amortization	(415,094)	(416,045)
Property and Equipment, Net	$ 489,824	$ 350,451

NOTE 8: DESIGNATED MEMBER'S EQUITY AND FUTURE MAJOR REPAIRS AND REPLACEMENTS

The Association's governing documents do not require the accumulation of funds to finance future major repairs and replacements. The Board of Directors, however, has established a bank account (the replacement fund) to accumulate funds for the estimated costs of future major repairs and replacements, required projects and for the expansion of existing common property. There was $38,973 and $100,684 in the replacement fund as of May 31, 2008 and 2007, respectively.

The Association is obligated by the augmentation plan to construct a water storage reservoir. The feasibility study completed in April 1993, estimated the Association's cost for the reservoir at $2.0 million. Management expects to fund this project through a $1.5 million loan from the Colorado Water Conservation Board for a 30 year term with a projected interest rate of 5% or less. Repayment of the loan will be funded by future membership assessments and fees. Beginning in 1994, the Association approved a capital projects special assessment for the construction of Upper Lone Pine Lake. The assessment is $70 per year, per lot and resulted in $115,921 being assessed in 2008 and $117,176 in 2007. With transfers from the operating bank account, the balance in the special assessment fund was $724,245 and $604,091 as of May 31, 2008 and 2007, respectively. As a result of feasibility studies performed, the Association has determined a need to pursue alternative options to meet the requirements of the augmentation plan. An impairment loss has not been incurred due with this change as the alternative option selected will be as a result of work already performed.

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. The Association will fund for such major repairs and replacements over the estimated useful lives of the components based on the study's estimate of future replacement costs, considering amounts previously accumulated in the replacement fund. Actual expenditures, however, may vary from the estimated amounts and the variations may be material. Therefore, amounts accumulated in the replacement fund may not be adequate to meet future needs.

SUPPLEMENTARY INFORMATION

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
SUPPLEMENTARY INFORMATION
ON FUTURE REPAIRS AND REPLACEMENTS (UNAUDITED)

May 31, 2008 and 2007

The Association's management conducts an ongoing study to estimate the remaining useful lives and the replacement costs of the components of common property. Replacement costs were based on the estimated costs to repair or replace the common property at May 31, 2008 and 2007. Estimated current replacement costs do not take into account the effects of inflation between the time of the study and the date the components will require repair or replacement. Not included in this schedule are the costs of the Upper Lone Pine Lake project explained in Note 8.

The following information is based on the study and presents significant information about the components of common property:

Fiscal Year 2007-2008	Estimated Remaining Useful Life (Years)	Estimated Current Repair or Replacement Costs
Buildings		
W and S Building	26	$ 96,000
11th Filing Well House	2	25,000
6th Filing Water & Sewer System	16	200,000
Furnishings and Equipment		
Computers	3	27,000
Office Furniture	4	10,000
Sound System	4	3,000
Radios		
Pac Sets	3	3,500
Base Systems	3	3,600
Hotsy Steam Cleaner	4	2,500
Major Equipment		
Vehicles	2	14,750
Heavy Equipment	8	161,000
Shop Equipment	5	28,000
Fuel Tank	8	1,500
Low profile water tanks 6th filing	18	15,000
Storage tanks for non-potable water resale	7	5,000
	Total:	$595,850

CRYSTAL LAKES WATER AND SEWER ASSOCIATION
SUPPLEMENTARY INFORMATION
ON FUTURE REPAIRS AND REPLACEMENTS (UNAUDITED)
(continued)

Fiscal Year 2006-2007	Estimated Remaining Useful Life (Years)	Estimated Current Repair or Replacement Costs
Buildings		
W and S Building	27	$ 100,000
11th Filing Well House	3	25,000
6th Filing Water & Sewer System	17	200,000
Furnishings and Equipment		
Computers	3	27,000
Office Furniture	4	25,000
Sound System	4	3,000
Radios		
Pac Sets	3	3,500
Base Systems	3	3,000
Hotsy Steam Cleaner	5	2,600
Major Equipment		
Vehicles	2	40,000
Heavy Equipment	8	180,000
Shop Equipment	5	28,000
Fuel Tank	9	1,500
Low profile water tanks 6th filing	19	15,000
Storage tanks for non-potable water resale	8	5,000
	Total:	$ 658,600