Exhibit A

COLORADO WATER CONSERVATION BOARD
WATER SUPPLY RESERVE ACCOUNT
SEDIMENTATION MANAGEMENT STUDY FOR PAONIA RESERVOIR

SCOPE OF WORK

The work will be performed in two phases. The first phase will consist of identifying and evaluating possible mitigation options at a feasibility level in order to narrow the focus to the most feasible alternative(s). The objective of the first phase of the study is to assess the potential technical feasibility of alternative sediment management techniques, identify the most economical alternative, and identify potential fatal flaws. This phase will also research regulatory requirements associated with optional sediment management techniques. Phase One work will include the following:

1. Review Existing Information – Existing information includes original construction documents, established operation and maintenance procedures, sediment surveys performed by the U.S. Bureau of Reclamation, as well as sampling and studies performed by the U.S. Geologic Survey, the Colorado Department of Health and Environment and the U.S. Forest Service. The initial step of the study will include research and familiarization with these and any other documents discovered.

2. Peer Review of Previous Studies – Previous studies conducted by Western Engineers include the following:

April 2005 – Preliminary Dredging Feasibility Study
May 2006 – Evaluation of Historic Sediment Surveys
February 2007 – Preliminary Evaluation of Sediment Mitigation Options

A review of this information will be conducted by a firm or individual with broad experience and expertise in reservoir sedimentation. A preliminary report will be prepared discussing the results of the peer review including comments regarding validity of conclusions

3. Collection of Additional Data - This task entails collecting the following information:

a. Hydrologic data (stream flow and rainfall data).
b. Sediment sampling and testing – Samples will be collected from the surface of the sediment at 10 to 15 locations. These samples will be tested for grain size distribution, index properties, moisture content, organic carbon content and agronomic characteristics. Selected samples will be tested for hazardous constituents.
c. Grab samples of the inflow and outflow water will be obtained several times during the season and the samples will be tested for solids concentration plus the characteristics listed above for the sediment samples. It is anticipated that 10 to 15 of these water samples will be obtained and tested.

4. Feasibility Evaluation of Optional Sediment Management Techniques – A range of possible mitigation options will be considered and evaluated as discussed below:

a. Pressure Flushing – Pressure flushing is executed with a high water surface elevation in the reservoir and entails opening a low-level gate at the dam. This flushing technique is usually implemented solely to clear deposited sediment from the immediate area in front of low level outlets. Pressure flushing leads to the development of a cone-like space upstream of the outlet, which is cleared of sediment.

b. Drawdown Flushing **–** Drawdown flushing is used to remove deposited sediment from the reservoir bed. The objective with drawdown flushing is to draw the water surface elevation in the reservoir down sufficiently to result in river-like flow conditions in the reservoir that will lead to re-suspension of deposited sediment and its discharge downstream of the dam. Such operation requires a low-level outlet with sufficient discharge capacity, and at a low enough invert, to develop the desired flow conditions. Once the river-like flow conditions have established it is necessary to discharge enough water through the reservoir to re-suspend the sediment and discharge it downstream of the dam.

c. Reservoir Routing **–** This option entails creating flow conditions in the reservoir during flood flows that will, ideally, transport incoming sediment through the reservoir without deposition. This technique does not increase reservoir capacity, because it does not re-suspend any significant amounts of deposited sediment. The main goal is to prevent additional sedimentation by conveying incoming sediment through the reservoir without deposition. The investigation of routing or flushing options will also involve evaluation of the feasibility for installation of a low-level controlled outlet.

d. Mechanical Dredging – Mechanical dredging involves using a mechanical dredge to loosen sediment material, pump it into a discharge line and transport the dredged slurry to a sedimentation basin where it can be settled and decanted. The disposal site must be sufficiently flat and large enough to allow for local permanent disposal of the dewatered sediment.

e. Hydro-Suction – This option is similar in concept to mechanical dredging except that the removal of the sediment from the reservoir basin is done with out a pump. The sediment is lifted from the bottom of the reservoir and transported downstream from the dam based on the difference in elevation between the reservoir level and the downstream disposal site. Both mechanical dredging and hydro-suction require a disposal site and, therefore, the Phase One work will include identification of potential sites.

f. Reduction of Basin Sediment Yield - Although experience has shown that catchment management is not generally an economically feasible approach to reservoir sedimentation management, information from long-time local residents suggests that a large source, if not the primary source, of sediment consists of a landslide, or series of landslides, located within a very limited stretch of one of the tributaries to Paonia Reservoir. This part of the study will include a detailed field examination of the drainage basin, selected sampling and testing of grab samples from any suspect source areas, review of aerial photography, research existing sediment yield information (including regional data), identification of both human and natural disturbances and characterization of any channel degradation.

5. The evaluation of alternatives will include conceptual designs as appropriate and associated cost estimates.

6. Investigate Regulatory Constraints – The cost and/or feasibility of some mitigation options may be significantly impacted by the necessity to satisfy federal, state and local legislative and regulatory agency rules and standards. Additionally, some of the methods normally used for sediment control may not be commonly used in the State of Colorado and

rules and regulations may need to be clarified, expanded or revised to address these methods. Therefore, it will be important to adequately identify and define the limitations that will constrain these methods.

7. The Phase One study findings will be presented in a report. The report will identify the technical feasibility of the alternative sediment management techniques and will select the most economical sediment management options. Additionally, the report will provide the engineers' opinions regarding the likely degree of success that can be anticipated using the techniques evaluated. The report will be followed by discussions between the project sponsors and the engineers. The objective of the discussions will be to agree on two or three selected sediment management techniques that should be investigated in more detail in Phase Two.

Phase Two work will consist of refining the selected option(s) by obtaining more comprehensive supporting data, performing more detailed engineering analyses, refining cost estimates and pursuing needed permits. The actual scope of the Phase Two work will be somewhat dependent on the results of the Phase One analyses. The current application for funding is based on the anticipated scope of work described below. The cost estimate includes a not-to-exceed amount for investigation of the selected option(s). A contingency factor has been applied to the estimated study cost to account for any needed modifications to the Phase Two scope of work:

1. Detailed Evaluation of the Selected Option(s) – Depending on the selected option(s) the Phase Two work may include one or more of the following possible work tasks:

a. Preparation of Numeric Sediment Transport Model and Evaluation – In order to evaluate the potential success of mitigation options which involve flushing or routing, it will be necessary to develop a computerized sediment transport/deposition model of the reservoir basin. This model will be developed using one of the existing modeling programs for unsteady, non-uniform sediment transport such as MIKE 11 or MIKE 21C (developed by the Danish Hydraulic Institute). This work will include a conceptual investigation to determine the most appropriate software; calibration of the model using currently existing stream concentration and flow data, data collected as part of this investigation as well as existing reservoir sedimentation data; and running the model under various anticipated or proposed conditions. In addition to modeling the effect of various flushing/routing scenarios, analyses will be made of variations in reservoir operational protocols on future sediment accumulation rates.

b. Dredging Disposal Sites – It will be necessary to enter into discussions with the owners of potential disposal sites in order to assure that a suitable site can be obtained and to assess the likely cost involved with developing such a site. Preliminary designs will be provided for identified sites. It will also be necessary to determine the right of way requirements needed to provide a discharge pipeline route from the dam to the disposal site.

c. Drainage Basin Yield Reduction – Further investigations will be conducted related to any methods which are identified in the Phase One evaluation as having a potential for economical success. The related Phase Two work will include obtaining field soil samples and performing investigations into the costs involved and the likelihood of success for these options. For example, if it is found that active slides comprise a significant source of sediment, shallow soil samples will be obtained and tested, the slide characteristics will be further investigated and preliminary stability evaluations will be

performed to identify possible stabilization alternatives. It is not intended that this work will include detailed geotechnical investigations or analyses.

d. Preliminary designs may be performed for installation of a low-level outlet gate. This work will include collaboration with the U.S. Bureau of Reclamation which retains safety and technical oversight of the facility.

2. Monitoring and Sampling – It is anticipated that sediment monitoring stations will be established at two locations. These locations will be immediately upstream from the reservoir (probably located near the existing flow gauging station) and immediately downstream from the reservoir. These stations will provide a means to start gathering baseline data for such tasks as correlating the stations with total trapped sediment, correlating with runoff rates, identifying seasonal variations in sedimentation and establishing patterns of sediment inflow and outflow which will be needed to implement a flushing or routing protocol. This task will include the following:

a. Each station will include means to monitor water turbidity, temperature and conductivity. The turbidity probe will be tethered at the most appropriate location and depth in the stream in such a way that it will rise and fall with the stream stage.
b. Each station will also include the ability to monitor stream stage.
c. A pumped sampler will be installed at each station which includes the ability to obtain stream samples at the location of the turbidity probe at designated times. The sampling events may be triggered either by pre-established rules, or by remote communication. Each sampler will be capable of obtaining and storing up to 24 samples.
d. Measurement data will be remotely available by means of satellite telemetry.
e. At the downstream station (and, if necessary, at the upstream station), a flow rating curve will be developed using standard flow measurement techniques. If appropriate, the station at the upper end of the reservoir basin will be located near the existing stream gauging station. Stream flows downstream from the reservoir will also be determined based on inflow and storage variations. Time-variable relationships will be determined between reservoir stage and reservoir storage capacity based on historic sedimentation rates.
f. Turbidity/Sediment Concentration and Stage/Sediment Concentration relationships will be determined based on periodic field suspended sediment samples take at each station. It is anticipated that samples will be taken during normal flow periods each season as well as important flow events such as rising and falling limbs of storms and various spring runoff flows. The estimated cost for the proposed work is based on a maximum of 15 sampling events.
g. The turbidity monitoring and suspended sediment monitoring will need to be supplemented with bed load sampling. However, previous studies have indicated that bed load is a small percentage of total load and, therefore, it is anticipated that the number of bed load samples will be approximately 25 percent of the suspended sediment samples.
h. Samples will be obtained of the bed material at selected locations.
i. Appropriate laboratory tests will be performed on all collected samples.
j. The costs presented in this application are based on a sampling, monitoring and calibration program which continues for a period of two years.

3. Cost/Benefit Analysis – A cost/benefit analysis will be performed for each of the selected mitigation methods evaluated. Costs will include construction costs, life-cycle costs and any

other indirect costs. Benefits will include both direct benefits from storage recovery as well as any identifiable indirect benefits.

4. Runoff Prediction Tools – The ability to reliably anticipate storable runoff volume will increase the range of sediment management options. For example, if flushing is found to be a feasible option, the ability to maximize the average available reservoir head and/or reservoir release flows while still assuring full storage will increase the effectiveness of the flushing processes. Therefore, part of the Phase Two portion of the study will be to evaluate the potential for developing accurate runoff prediction models based on a combination of SNOTEL data, basin characteristics and climate forecasts. This work will consist of the following:

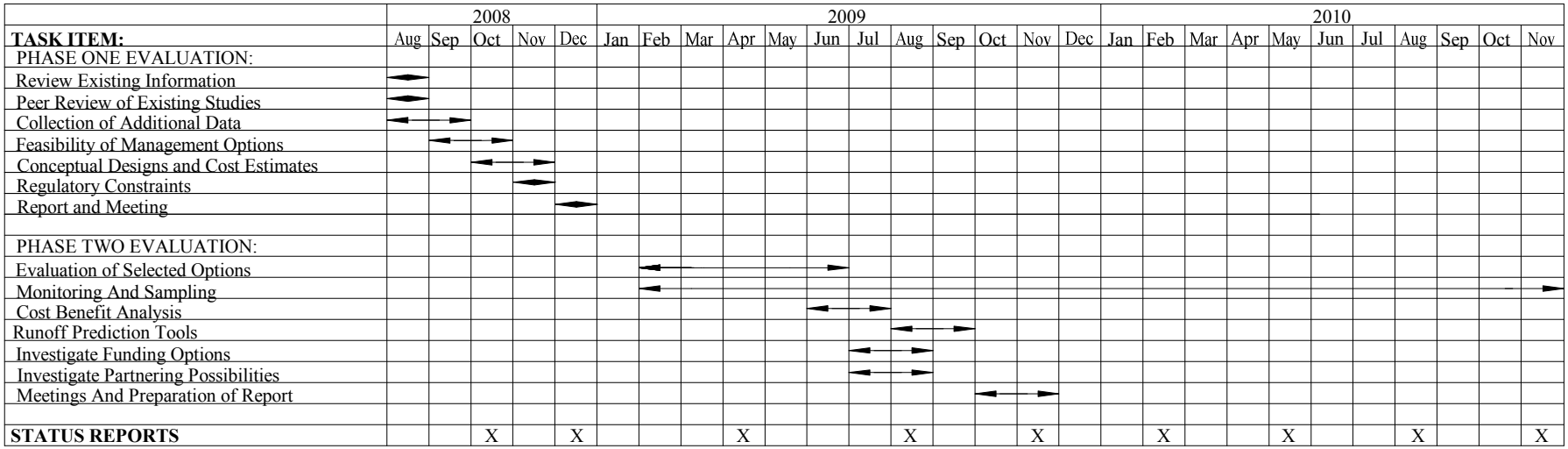
a. Research the availability of existing runoff prediction models and their applicability.
b. Make a preliminary correlation between historic SNOTEL records and runoff volume.

5. Investigate Funding Options – Research will be done to assure that all feasible sources of funding have been identified. These may include but not be limited to water users, the Colorado River Water Conservation District, State agencies and Federal Agencies.

6. Investigate Partnering Possibilities – There may be other entities which have an interest in pursuing sediment mitigation but are not in a position to contribute funding to the project. These entities might be able to contribute technical expertise, political support or administrative assistance. These groups might include, but are not be limited to, the U.S. Natural Resource Conservation Service, the U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the local Soil Conservation District, local water users groups, the Colorado Department of Health and Environment, the Colorado Division of Wildlife, the North Fork River Improvement Association and the Colorado Water Conservation Board. The potential interested parties will be identified and contacted to determine interest and ability to assist.

7. Meetings and Preparation of Report – Status and steering meetings will be held with the North Fork Water Conservancy District and other interest parties at selected intervals. A final report will be prepared which summarizes the investigations performed and their results, provides updated cost estimates for the alternatives, presents advantages and disadvantages of each alternative and presents conclusions and recommendations for future action.

A time schedule along with a schedule of costs and a detailed study cost estimate are included with this supplement.



NORTH FORK WATER CONSERVANCY DISTRICT

SEDIMENTATION MANAGEMENT STUDY FOR PAONIA RESERVOIR

SCHEDULE OF WORK ITEMS

FIGURE 1
4/17/2007
REVISED 12/10/2007
REVISED 7/16/2008
REVISED 8/14/2008

ESTERN
ENGINEERS, INC.

PAONIA RESERVOIR SEDIMENTATION MANAGEMENT STUDY
COST ESTIMATE

STUDY TASK	ESTIMATED MAN-HOURS								REIMBURSIBLES		TOTAL COST
	PRINCIPAL $140	SEDIMENTATION SPECIALIST $185	DREDGING SPECIALIST $100	PERMITTING SPECIALIST $100	SENIOR ENGINEER $120	STAFF GEOLOGIST $85	STAFF ENGINEER $85	TECHNICIAN $70	EQUIPMENT/MATERIALS	OTHER	
PHASE ONE EVALUATION:											
A. REVIEW EXISTING INFORMATION		2			8		35				$4,305
B. PEER REVIEW OF EXISTING STUDIES		16									$2,960
C. COLLECTION OF ADDITIONAL DATA											
1. Hydrologic Data					8		35				$3,935
2. Sediment Sampling					6		20	20			$3,820
3. Water Sampling					8		30	30			$5,610
4. Laboratory Testing										$13,500	$13,500
D. FEASIBILITY OF MANAGEMENT OPTIONS											
1. Pressure Flushing		2			2		20				$2,310
2. Drawdown Flushing		2			2		20				$2,310
3. Reservoir Routing		2			2		20				$2,310
4. Mechanical Dredging		2	20		2		20				$4,310
5. Hydro-Suction		2			2		20				$2,310
6. Reduction of Basin Sediment Yield		16			16	16	40				$9,640
E. CONCEPTUAL DESIGNS AND COST ESTIMATES		8	24		8		50				$9,090
F. REGULATORY CONSTRAINTS	8			80			16				$10,480
G. PHASE ONE REPORT AND MEETING	8	20		8	8		60				$11,680
SUBTOTAL PHASE ONE EVALUATION											$88,570
PHASE TWO EVALUATION:											
A. EVALUATION OF SELECTED OPTION(S)	8	8		12	50		240				$30,200
B. MONITORING AND SAMPLING											
1. Monitoring Station Installation	6				8		20	40			$6,300
1a. Monitoring Station Installation (Equipment)									$3,000		$3,000
2. Monitoring/Sampling Equipment									$33,000		$33,000
3. Monitoring Station Calibration Sampling					8		16	300			$23,320
4. Laboratory Testing										$10,000	$10,000
5. Data Analysis	8				8		100				$10,580
C. COST/BENEFIT ANALYSIS	12				20		100				$12,580
D. RUNOFF PREDICTION TOOLS											
1. Research Prediction Models					10		40				$4,600
2. Basin Runoff Correlations					10		80				$8,000
E. INVESTIGATE FUNDING OPTIONS	5				20		40				$6,500
F. INVESTIGATE PARTNERING POSSIBILITIES	10				20		60				$8,900
G. MEETINGS AND PREPARATION OF REPORT	30	24			56		160				$28,960
SUBTOTAL PHASE TWO EVALUATION											$185,940
SUBTOTAL PHASE ONE AND TWO											$274,510
TRANSPORTATION, COPYING, MISC (1%)											$2,745
CONTINGENCY(15%)											$41,177
TOTAL ESTIMATED COST											$318,432

PAYMENT

Invoicing shall be by task. The request for payment shall include: a description of the work accomplished; an estimate of the percent completion for individual tasks and for the entire project in relation to the percentage of budget spent. Costs incurred prior to the effective date of this purchase order are not reimbursable. Invoicing shall be based on actual costs utilizing the rates summarized above.

The last 5 percent of the project budget will be withheld until final project documentation is complete. All products, data and information developed as a result of this purchase order must be provided to CWCB in hard copy and electronic format as part of the project documentation.