

# **Request for Proposals**

## **Watershed Plan Implementation Services**

### **Water Resource Inventory Area 31**

#### **A. Introduction**

Pursuant to chapter 90.82 Revised Code of Washington (90.82 RCW), Klickitat County (County) is the lead agency for watershed planning in Water Resource Inventory Area 31 (WRIA 31). The County is seeking proposals from qualified consulting firms to provide technical support for the implementation of the proposed WRIA 31 watershed plan, which can be obtained by clicking on “WRIA 31” at this internet address: <http://klickitatcounty.org/Planning/>. The proposed WRIA 31 watershed plan has been approved by the Planning Unit and is currently undergoing SEPA review prior to being considered for final approval by the legislative authorities of Benton, Klickitat, and Yakima counties. Any contract resulting from this solicitation will be at the convenience of the County and subject to the availability of grant funds. Additionally, any resulting contract will be subject to the terms and conditions of the County’s anticipated grant agreement with the Washington State Department of Ecology (Ecology), and Ecology will be a third party beneficiary of the contract.

#### **B. Contract Type, Budget, and Period of Performance**

The award will be a negotiated time and materials, task order type contract with a not to exceed budget of one million dollars (\$1,000,000) over the term of the contract. The assignment of tasks, if any, to the contractor will be at the sole discretion of the County and subject to the availability of funding and other considerations. The not to exceed budget for individual task orders will be determined on a case by case basis. The contractor will have the right to decline a task assignment. In which case the County may contract with another firm, terminate the contract, or develop and pursue other options.

The period of performance, or term, of the contract will be two years. The contract may be amended to extend the period of performance for up to three additional years and/or to increase the not to exceed budget.

If, as determined by the County, the County and apparent successful proposing firm are unable to negotiate an acceptable contract, negotiations will terminate and the County will negotiate with the firm that submitted the next most advantageous proposal.

As grant monies will fund some or all tasks on a cost reimbursement basis, payment terms must accommodate the time required for the County and Ecology to process payment.

#### **C. Scope of Work**

1. As directed by the County, contractor will attend meetings related to implementation of the watershed plan.
2. As directed by the County, contractor will provide technical support for watershed plan development and amendment. It is anticipated that one of the first task orders will be to provide technical support for the development of a detailed implementation plan that meets the requirements of 90.82 RCW.
3. As directed by the County, contractor will conduct assessments and studies needed to fill data gaps and provide technical support for the implementation of strategies and actions identified the watershed plan. It is anticipated that one of the first task orders will be to provide technical

support for an appraisal level water storage assessment. A copy of the grant application is attached to this request for proposals. Whether the grant will be awarded is uncertain at this time.

#### **D. Location**

Most of the meetings and field work will be located in Benton, Klickitat, and Yakima counties, but meetings may also be located elsewhere in the Northwest.

#### **E. Contractor Solicitation and Selection Schedule**

The following is the schedule for the contractor solicitation process:

- Week of September 21, 2008                      Issue Request for Proposals;
- October 20, 2008                                      Proposal Delivery Deadline;
- Week of November 3, 2008                      Notify Short-listed Firm(s);
- Week of November 17, 2008                      Interview Short-listed Firm(s);  
Notify Successful Firm and initiate contract negotiations.

There will be no pre-proposal conference.

#### **F. Desired Qualifications**

The ideal firm or consulting team should exhibit the following:

- strong technical expertise and experience in assessing water quantity, quality, and habitat in watersheds similar to WRIA 31;
- familiarity with priority water resource and habitat issues and their associated strategies and actions identified in the WRIA 31 watershed management plan;
- strong knowledge of federal, state, and local laws and policies pertaining to water resources, fish and wildlife habitat, and the land uses found in WRIA 31;
- proven ability to work effectively with watershed planing units and in comparable committee directed processes;
- familiarity with 90.82 RCW and demonstrated experience developing watershed management plans and detailed implementation plans pursuant to 90.82 RCW;
- track record of responsive service delivery; and
- track record of generating quality work products.

#### **G. Proposal Contents and Submittal Deadline**

Proposals shall not exceed 20 pages in length, excluding cover letter and resumes. The proposal text shall be 12-point font or larger. The proposal shall, at a minimum, include the following:

- Project approach;
- Project management, including:

- descriptions of the qualifications and experience of the project manager and personnel responsible for major portions of the work, as well as a description of the experience of the project team working together;
- description your approach to project management, including communications and quality assurance;
- organization chart and the identification of proposed project personnel and their roles on the project;
- cost proposal, which shall include fully loaded hourly charge rate for all project personnel, and other direct costs (all costs are to include prime contractor fees/markup, if applicable);
- resumes for all project personnel, except clerical and other administrative support staff; and
- cover letter signed by an individual authorized to bind the firm.

To be considered, fifteen copies of your proposal must be delivered by 5:00 P.M. on October 20, 2008 to the attention of David McClure at:

Klickitat County Natural Resources Department  
228 West Main Street, MS-CH-37  
Goldendale, WA 98620

David McClure will be the County's administrator for the proposed contract.

#### **H. Evaluation Criteria:**

The following evaluation criteria will be used. Base the identification of key project personnel and the cost proposal on the scopes of work for developing a detailed implementation plan and conducting the appraisal level water storage assessment.

##### Qualifications of the Project Team and Performance on Past Projects - 50 possible points

Proposals will be evaluated based on the people who will actually work on the project. Identify all key project personnel (i.e., those who will be responsible for significant elements of the work) and their roles on the proposed project and the estimated number of hours they would bill to the project. Provide resumes for all proposed project personnel.

Provide summaries of and references (include contact name, address, and telephone number) for relevant projects, which, collectively, demonstrate the team's experience in conducting relevant assessments/studies, familiarity with watersheds similar to WRIA 31 and the issues and strategies identified in the WRIA 31 watershed management plan. In each project summary identify which of the proposed project personnel worked on the project and their roles. Please do not provide summaries of projects that were not worked on by proposed project personnel.

##### Project Management – 30 possible points

Proposals will be evaluated based on the approach to managing the project, which includes the following:

- proposed approach to working with planning units and experience in working with similar committees;
- qualifications and project management experience of the project manager and those responsible for major elements of the work;
- work distribution and experience of the project team working together;
- quality assurance; and
- performance on similar projects.

Cost – 15 possible points

Proposals will be evaluated based on the fee schedule for key project personnel, technical support staff, and administrative services and for other direct costs.

Responsiveness of Proposal – 5 possible points

Proposals will be evaluated based on compliance with the procedural and technical requirements of the request for proposals.

**I. Right of Rejection**

Klickitat County reserves the right to reject any and all proposals submitted.

**J. Costs to Propose**

Klickitat County will not be liable for any costs incurred by the consultant in preparation of a proposal submitted in response to this Request for Proposals (RFP), in conduct of a presentation, or any other activities related to this RFP.

**K. No Obligation to Contract**

This RFP does not obligate Klickitat County to contract for services specified herein.

**L. Acceptance of Proposal**

The contents of the proposal of the selected consultant will become part of the contractual obligations if a contract ensues.

**M. Minority and Women-Owned Business Participation**

In accordance with the legislative findings and policies set forth in Chapter 39.19 RCW, the State of Washington encourages participation in all of its contracts by firms certified by the Office of Minority and Women’s Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this solicitation or on a subcontractor basis. However, no preference will be included in the evaluation of proposals, no minimum level of MWBE participation shall be required as a condition for receiving an award, and proposal will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes include or referenced in the contract documents will apply.



## KLICKITAT COUNTY NATURAL RESOURCES DEPARTMENT

228 W. Main St., MS: CH-37, Goldendale, Washington 98620

VOICE: 509 773-2481

FAX: 509 773-6206

June 19, 2002

May 15, 2008

Mr. Daniel R. Haller, P.E.  
Columbia River Unit Supervisor  
Water Resources Program  
Washington Department of Ecology  
15 W. Yakima Avenue, Suite 200  
Yakima, WA 98902-3452

Subject: Proposal for appraisal-level water storage assessment in WRIA 31

Dear Mr. Haller:

Please find enclosed the proposal for gap funding to support an appraisal-level water storage assessment in WRIA 31. The primary purpose of the proposed project is to evaluate water storage options in WRIA 31 and determine a preferred alternative that could be forwarded in a proposal for feasibility study funding in the upcoming Columbia River Basin Program proposal solicitation. As you, Greg Schuler, and I discussed, the proposed appraisal-level water storage assessment includes the evaluation of water supply demand and instream and out-of-stream benefits.

The proposal in a format that we believe communicates the purpose, scope of work, and costs of the project. If you would prefer the proposal in a different format or on a standardized form, please let me know and I will reformat it. Additionally, if you or your review team finds that additional information on the proposed project is needed or finds that the project would benefit from additional work elements to address specific issues, please let me know so that we can provide the information or amend the scope of work to incorporate you input. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "David McClure".

David McClure  
Director

Klickitat County Natural Resources Department

Cc: Adam Fyall, Benton County, Chairman WRIA 31 Planning Unit  
Greg Schuler, Ecology  
Derek Sandison, Ecology  
Al Josephy, Ecology

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**Appraisal Level Water Storage Assessment  
Horse Heaven, WRIA 31**

**Applicant:** Klickitat County

**Project Overview**

The proposed project would be conducted under the WRIA 31 watershed planning effort and with involvement of the watershed Planning Unit, including the Department of Ecology (Ecology) which would coordinate with other State agencies through the State Caucus. A priority recommendation of the proposed WRIA 31 Watershed Management Plan developed under chapter 90.82 RCW is to develop water storage within WRIA 31 to address multipurpose water demands identified in the planning process. This includes evaluating the potential for development of a regional water storage project in the Horse Heaven, and/or a source exchange project in which groundwater supply from pumping of deep wells is replaced by Columbia River surface water supply. Identified strategies in the Watershed Plan consider both surface (e.g. reservoir) and groundwater (e.g. ASR) storage to meet this need.

The Horse Heaven as defined for this proposal is equivalent to the approximately 1,200 square mile Wood-Glade planning area as defined in the WRIA 31 Watershed Management Plan. It is bounded by the crest of the Horse Heaven Hills on the north, the Columbia River on the south and east, and the Rock Creek watershed on the west. However, a water storage project in the Horse Heaven may serve in meeting demand both within and beyond the geographic area that comprises WRIA 31.

The objectives of the proposed project are to complete an appraisal level assessment for a range of applicable water storage alternatives, including evaluation of instream and out-of-stream demand and cost/benefits, and the selection of a preferred alternative that would be moved forward for feasibility study. The proposed project would evaluate a range of alternatives for water storage, including comparing costs/benefits of the alternatives to define a preferred water storage concept.

The proposed project will consider use of new and, to the greatest extent possible, existing irrigation infrastructure to increase water storage and conveyance. Storage project components may include an irrigation canal system capable of water conveyance and storage of meaningful volumes of water, new on- and off-channel surface reservoirs and/or subsurface reservoirs (i.e., aquifer storage and recovery (ASR)), new and retrofitted (for winter operation) pump stations, and integration with renewable electrical power production facilities (e.g. wind power and small-scale hydropower) to support the project while reducing operational costs.

The majority of the irrigated agriculture in the Horse Heaven relies on irrigation water diverted from the Columbia River. However, the existing surface water conveyance systems do not deliver water to irrigable lands in the northern portion of Horse Heaven, farthest inland from the river. Consequently, the farms at distance from the river pump groundwater from the Wanapum Basalt aquifer for irrigation supply. Groundwater levels in the Wanapum Basalt aquifer have declined locally, hundreds of feet in some cases, forcing well deepening and increased pumping costs, and raising uncertainty for the sustainability of irrigated agriculture in areas at distance from the Columbia River. Potential changes in evapotranspiration caused by future climate change may also reduce the viability of dry land farming, which may necessitate a transition toward additional irrigation.

The current overdraft of the Wanapum aquifer is not sustainable, and threatens the viability of groundwater-supplied irrigated agriculture in the Horse Heaven inland from the Columbia River. This situation is the same as that occurring in the Odessa subarea of the Columbia basin project, where the state and federal governments have undertaken significant efforts to stabilize declining groundwater levels in the basalt aquifer system. ASR is proving to be a viable means of water storage elsewhere in the Columbia Basin. Although there are cost tradeoffs that need to be considered - such as water quality treatment requirements for groundwater storage - ASR may be cost competitive when compared to the construction and operation and maintenance cost of surface reservoirs. The depleted aquifer zone represents a potential large underground reservoir without the loss of valuable land. Further, use of the Wanapum Basalt aquifer in this area is believed to be limited primarily to agricultural use.

In addition to groundwater users, there are numerous pending water right applications and holders of interruptible water rights within and downstream of WRIA 31. A water storage project within the WRIA could serve an uninterrupted supply of water to the holders of interruptible water rights on the Columbia River who are subject to instream flow rules.

A water storage project may also provide opportunities to enhance streamflows in the WRIA's intermittent tributaries, which are designated as critical habitat. A source of additional cool water in these tributaries may provide a thermal refuge along the Columbia River mainstem benefiting migrating salmonid stocks.

A preliminary water storage assessment conducted as part of the WRIA 31 watershed planning effort estimates a high cost to deliver small to moderate quantities (< 10,000 acre-feet) of Columbia River water miles inland from the river, assuming that all new infrastructure is constructed. Conveyance and storage of larger quantities of water may be required to achieve sufficient economy of scale to make a regional storage project economically feasible. However, the assessment also documents that using existing pumping and conveyance infrastructure (properly retrofitted) can greatly reduce the project cost.

The proposed scope of work and estimated cost for the project is outlined below.

### **Scope of Work (task breakdown)**

The following Tasks 1 through 5 describe the work proposed to complete the Appraisal Level Water Storage Assessment for the Horse Heaven area of WRIA 31. At the end of each section is a description of the deliverables associated with those tasks. A table summarizing the estimated project costs is included at the end of this document.

#### ***Task 1 – Project Management/Facilitation, Public Involvement, Stakeholder Interaction***

This task involves direct interaction with the Planning Unit and interested stakeholders regarding the storage assessment to ensure the public understands and supports the storage recommendations resulting from the proposed project. This task will primarily focus on workshops or meetings with the Planning Unit, and will include:

- Periodic meetings with the Planning Unit to discuss findings and receive input on technical notes, project summaries, findings, reports, and alternatives. As proposed in the WRIA 31 Watershed Management Plan this may include establishing a sub-committee to focus on the water storage project and engage additional direct participation by interested parties.
- Preparation of outreach materials (technical notes and project summaries) to appropriate agencies, the Planning Unit, and the general public regarding the work being conducted, the findings of any technical studies, and the types of management actions under consideration. Conducting survey to aid in clarifying community concerns and interests related to water supply and potential storage options.
- Conducting one mid-project public workshop.
- Conducting one final public workshop regarding the technical findings and administrative/management recommendations under consideration.

This task also includes project management/administration and facilitation by the WRIA 31 lead agency, Klickitat County.

#### **Task 1 Deliverables**

Meeting agendas and minutes, documentation, outreach material, and grant administration requisites (e.g., progress reports) as needed throughout the project.

#### ***Task 2 – Identify Range of Water Storage Project Alternatives***

For this task, existing information and reports on water storage in WRIA 31 will be compiled and reviewed. A list and summary of applicable water storage project alternatives will be developed and presented to the Planning Unit. The list of alternatives will consider conveyance and storage strategies considered in concept studies conducted to date. One focus of the list will be regional water supply and storage projects that provide water to the northern portion of Horse Heaven, which currently relies on groundwater for irrigation of over 20,000 acres of irrigated agriculture. The sustainability of irrigated agriculture reliant on groundwater is threatened due to depletion of the resource. In addition, there is considerable opportunity for increased productivity through irrigation of additional acreage currently in dry land farming, or, as may be needed as a consequence of climate change, provide water sufficient to maintain production on what are currently dry land farms. New water storage in the Horse Heaven can also potentially provide additional water for diversion in other WRIAs downstream on the Columbia River.

Many of the water supply and conveyance concepts developed to date do not address instream benefits beyond those that would be achieved by changing the timing of water diversions to periods of relatively high stream flow. Therefore, another focus of this task will be incorporating a broader instream benefit dimension in the list of water storage concepts. This may include such considerations as stream flow augmentation and/or creation of thermal refugia.

**Task 2 Deliverable**

Summary memo identifying a range of water supply and storage project alternatives, and presentation of it to Planning Unit.

***Task 3 - Water Supply and Demands***

The purpose of this task is to work with the Planning Unit and other stakeholders to identify current and future water demands that are desired to be met through a regional water storage, conveyance and supply system, and to compare those water demands to existing water rights and the potential water supply source. In accordance with the Watershed Management Plan, this includes increased supplies for out-of-stream demands (e.g., irrigation) and instream demands (e.g., increased flow and reduced temperature in tributary streams that are listed as critical habitat, reduce temperature in the Columbia River mainstem).

Water supply availability will be identified, as well as potential limitations to use (seasonal, drought year). The volume of water required will be estimated and compared to the potential timing of pumping from the Columbia River. Estimates of water storage volumes required to meet demands under a seasonal pumping scheme will be prepared.

**Task 3 Deliverable**

Summary memo describing potential water availability and supply to regional system compared to potential water demands.

***Task 4 - Preliminary Screening of Alternatives***

Compile and review existing data sources to inventory natural resource elements and the geologic setting associated with potential storage areas and alternatives. This baseline assessment will include the compilation of available information and review of the following elements:

- Topography (USGS 7.5-minute Topo)
- Georectified aerial photos
- Critical areas including National Wetland Inventory maps (USFWS)
- Streams
- Priority Habitats and Species (WDFW)
- Hydrologic conditions (stream flow, run-off, instream flow needs)
- Shallow hydrogeologic conditions and surface water – groundwater interaction
- Hydrogeologic conditions for ASR
- Geologic mapping and available geotechnical reports
- Fish habitat reports
- Climate change reports

The above information will be assimilated into a GIS database to compile the separate data sets and identify key natural resources elements and potential “fatal flaws” associated with each alternative storage project area.

The relative attributes of each of the potential water storage alternatives, assembled with input from the Planning Unit, will be compared utilizing a set of initial screening criteria. These criteria have been employed for other water storage assessments that rank benefits to Planning Unit objectives, such as increased or more reliable water supply, augmenting aquifer levels, and improving instream habitat or water quality conditions. The specific screening criteria for this comparative analysis will be developed with the Planning Unit prior to their use in the initial or screening evaluation of the different project alternatives.

The screening criteria also contain a ranking of implementation factors such as cost, the implementation complexity (permitting, land ownership, water rights, funding, etc) and technical complexity (geotechnical, hydrologic, or civil engineering issues). At this level of planning, it is proposed that the screening criteria use a system that ranks benefits and other factors as having no benefit, low benefit, medium benefit or high benefit.

The screening criteria will then be applied to each of the project alternatives. The screening criteria will be evaluated with the Planning Unit to ensure agreement on the project alternatives. A summary document will be prepared that lists and describes the potential storage project alternatives, summarizes the results of the screening criteria and ranks the projects from high priority to low priority. The information will be presented in a public workshop and refined as needed to guide the assessment described in the next subtasks. The outcome of this task will be selection of a preferred water storage alternative to be carried forward for more detailed evaluation (Task 5).

#### **Task 4 Deliverable**

Summary memo describing, screening, and priority ranking the alternative storage projects.

#### ***Task 5 – Analysis of Preferred Alternative***

Following the mid-project workshop where the preliminary screening is completed, the preferred water storage alternative (and, if necessary, one variant of the preferred alternative – e.g. surface versus groundwater storage component) will be further developed and evaluated in this task. This assessment will allow the project to be developed into enough detail to be able to quantify the benefits of the project alternative, the planning-level cost, and the potential environmental issues and impacts that would need to be addressed when feasibility study and potential implementation funding for the project is pursued. Analysis of the preferred alternative is described in the following subtasks. A more detailed feasibility study of the preferred alternative(s) would be conducted as a subsequent project.

#### **Task 5.1: Resource Evaluation**

This task will provide a more detailed assessment of the natural resource elements of the potential storage project or areas, including but not limited to:

- Topography and ground cover
- Groundwater –surface water interaction
- Habitat conditions
- Hydrologic conditions (stream flow, run-off, instream flow needs)
- Shallow hydrogeologic conditions
- Deep hydrogeologic conditions

A site reconnaissance will be completed to field-verify the natural resource elements identified in Task 4 and 5.1. An impacts analysis of the storage option will be completed following the field reconnaissance and updating of the GIS database. Potential impacts will be evaluated using the GIS database and overlaying of the preferred storage project footprint.

### **Task 5.2: Planning-Level Engineering Evaluation**

For this task, a review of geologic information and geotechnical engineering requirements will be performed, a preliminary layout of the water storage project features provided, and a planning-level cost estimate prepared. A preliminary layout of project facilities will be prepared using best available mapping. The layout of a surface storage alternative can show the preliminary locations of facilities such as pumping stations, pipelines, canals, laterals and reservoirs. For a subsurface storage (ASR) alternative, a literature review and preliminary hydrogeologic evaluation would be conducted to identify potential locations for Ranney collectors within the Columbia River gravels, with the assumption that bank filtration may provide most or all of the necessary water quality treatment to allow for subsurface recharge of the pumped water.

Project features will be preliminarily sized in order to prepare the cost estimate. The cost estimate will be prepared using best estimates of materials and unit prices from similar projects near the project area. Evaluation of potential phasing of storage project construction to meet project future demands (e.g., climate change impacts) can also be considered.

Estimates of the long-term operation & maintenance cost will also be provided, as often the operating cost of a project is a key factor in deciding whether to implement it. Issues relating to design, construction or permitting of the project will be identified. The potential water yield of the project will be described for both average conditions and drought conditions.

### **Task 5.3: Administration/Management**

This task will identify alternatives for the administrative aspects of constructing and overseeing the long-term operations and maintenance of a regional water storage project. For an ASR alternative, the Planning Unit may consider establishment of a groundwater management area under RCW 90.44.400, in consultation with Ecology. This may provide a regulatory mechanism to establish a specific aquifer zone designated for irrigation supply, not drinking water supply, as the highest beneficial use, and potentially provide a means to address ASR source water compliance issues with the state groundwater quality standards (antidegradation policy) under chapter 173-200 WAC. Consideration of a groundwater management area for the Horse Heaven is a recommended action in the WRIA 31 Watershed Management Plan.

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### **Task 5.4: Environmental Overview**

This task will identify the potential environmental effects and associated regulatory elements of the preferred water storage project or areas, for example:

- SEPA
- Permitting
- Water rights
- Instream flow
- Water quality

An early environmental analysis of the preferred water storage alternative will be completed to incorporate environmental information into the decision-making process. The environmental analysis will be based in part on the statewide programmatic Watershed Planning Environmental Impact Statement, which identifies a range of alternatives that represent actions that the Planning Unit may decide to adopt, and the programmatic Environmental Impact Statement for the Columbia River Management Program.

The environmental analysis will evaluate key environmental benefits and negative impacts associated with the preferred water storage project. A technical memorandum that identifies key environmental issues (benefits and negative impacts) associated with the preferred storage project will be prepared. The memorandum will include a brief description of the project, summary description of the key environmental issues and identification of potential mitigation measures.

A matrix will be created to identify the probable local, state, and federal permits and regulatory approvals that would be required for project implementation. The matrix will contain the permit type, permit timeline, applicability, and regulatory agency.

### **Task 5.5: Water Storage Appraisal Report**

For this subtask, the information obtained in Tasks 5.1-5.3, along with input received from a public meeting held near the end of the process, will be compiled into a Water Storage Appraisal Report. The report will summarize the screening of project alternatives and define the concept and general scale of a preferred water storage alternative(s) that best meets the Planning Unit goals and objectives for the Horse Heaven.

The report will contain recommendations for additional work needed to further determine the feasibility of a preferred water storage alternative to a level of detail required for agencies to consider for funding. A draft report will be prepared for Planning Unit, Ecology, and public review. Comments received will be incorporated into a final report.

### **Task 5 Deliverables**

Draft and Final Water Storage Appraisal Reports, summarizing the work completed for Tasks 5.1 – 5.5.

**Estimated Cost (by task breakdown)**

Task No.	Description	Estimated Cost
1	Project Management/Facilitation, Public Involvement, Stakeholder Interaction	\$30,000
2	Define Range of Water Storage Alternatives	\$15,000
3	Water Supply and Demands	\$25,000
4	Preliminary Screening of Alternatives	\$30,000
5	Evaluation of Preferred Alternative and Reporting	\$70,000
	<b>Total</b>	<b>\$170,000</b>