

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: April 30, 2017 (amended July 21, 2017)



South Platte Basin Data Platform (original version submitted to South Platte BRT was called South Platte Basin Roundtable Data Platform).

Name of Water Activity/Project

Open Water Foundation		
Name of Applicant	Amount from Statewide Account:	\$60,000
South Platte	Amount from Basin Account(s):	
	The original request was \$40,000 from the SP BRT, which asked OWF	\$40,000
	to request Metro to fund half. See Part II, Item 5 for information.	
Approving Basin Roundtable(s)	Total WSRA Funds Requested:	\$100,000

(If multiple basins specify amounts in parentheses.)

FEIN: 46-2676240

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Required Exhibits

- A. Statement of Work, Budget, and Schedule See Exhibit A in file "ExhibitA-SOW-OWF-WSRF-SouthPlatteDataPlatform.pdf"
- B. Project Map Included in Exhibit A
- C. As Needed (i.e. letters of support, photos, maps, etc.) **See separate letter of support** from Colorado Water Institute in file "Colorado Water Institute-OWF-LetterOfSupport-2017-04-28.pdf"

Appendices – Reference Material

- 1. Program Information see attachment "OWF-Organization-Overview.pdf"
- 2. Insurance Requirements OWF has previously provided the State proof of insurance on multiple ongoing projects with the CWCB, including projects larger than \$100,000
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000) **OWF has**

complied with contract terms on multiple ongoing projects with the CWCB, including projects larger than $\$100,\!000$

4. W-9 Form (Required for All Projects Prior to Contracting) – **See attached file "OWF-w9-2017.pdf"**

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application with a detailed statement of work including budget and schedule as Exhibit A to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: http://cwcb.state.co.us Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests.

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203 Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

1.	Applicant Name(s):	Open Water Foundation			
	Mailing address:	320 E. Vine Drive, Suite 203 Fort Collins, CO 80524			
	FEIN #:	46-2676240		l	
	Primary Contact:	Steve Malers	Position/Title:	Chief Technology Officer	
	Email:	steve.malers@openwaterfoundation.org			
	Phone Numbers:	Cell: 970-988-1447	Office:	970-286-7462	
	Alternate Contact:	Kristin Swaim	Position/Title:	Biologist	
	Email:	Kristin.swaim@openwaterfoundation.org			
	Phone Numbers:	Cell:	Office:	970-286-7439	
2. Eli	gible entities for WSRA	funds include the following. What ty	pe of entity is the A	Applicant?	
	Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.				
	Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.				

Private Incorporated – mutual ditch companies, homeowners associations, corporations.

for funding from the Statewide Account.

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Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not

Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

The Open Water Foundation (OWF) is a 501(c)3 nonprofit formed in 2013 to focus on developing and supporting open source software for water resources in order to make better decisions. OWF also supports publishing and use of open data. OWF recognizes that water is an important public resource and its management and administration should benefit from commonly-available open data and tools. OWF's initiatives involve open source software; improved data access and transparency; application of data and software to sustainable irrigated agriculture, natural river systems and municipal water providers and communities; facilitating education about complex water issues; internships focusing on technology and water resources; and helping other nonprofits with water interests to accelerate their development. As an integrator of data and technologies for the benefit of water organizations, OWF supports study of system-wide problems and interactions, including relationships between environment, agriculture and municipal water uses. A primary goal of OWF is to improve understanding of complex systems and cross-jurisdictional issues through improved data analysis, visualization and education.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

N/A

5.	Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract included in Appendix 3. Please review this contract and check the appropriate box.
	The Applicant will be able to contract with the CWCB using the Standard Contract
	The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

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6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

OWF has no TABOR issues that may affect our ability to contract with the CWCB.

Par	t II Descr	ription of the Water A	Activity/Project			
1. \	What is the p	orimary purpose of this	s grant application? (Please check only one)			
		Nonconsumptive (Environmental or Recreational)				
		Agricultural				
		Municipal/Industria	I			
		Needs Assessment				
		Education				
	X	Other Exp	plain: This application addresses multiple purposes.			
2. 1	If you feel th	is project addresses m	ultiple purposes please explain.			
this and the asse sup Bas	project is to its stakehol Roundtable essment, pro ports SWSI, sin.	o connect various publiders (amended to also is in areas of Environiect implementation, BIP, and CWP efforts	and throughout the State are inherently complex and interrelated. The scope of ic datasets to provide a data platform for the South Platte Roundtable members support Metro Roundtable). This data infrastructure will facilitate the work of onment and Recreation, Agriculture, Municipal/Industrial and support needs education, and decision-making. This project will establish a platform that is and also address direct needs of the Roundtable members and the South Platte			
3. 1	Is this projec	et primarily a study or	implementation of a water activity/project? (Please check only one)			
		Study	X Implementation			
4.	To catalog m	neasurable results achi-	eved with WSRA funds can you provide any of the following numbers?			
		New Storage Crea	ted (acre-feet)			
		New Annual Wate	er Supplies Developed, Consumptive or Nonconsumptive (acre-feet)			
		Existing Storage Preserved or Enhanced (acre-feet)				
		Length of Stream Restored or Protected (linear feet)				
		Length of Pipe/Canal Built or Improved (linear feet) Efficiency Savings (acre-feet/year OR dollars/year – circle one)				
		Area of Restored	or Preserved Habitat (acres)			
	X	Other Explain:	This project will improve the Roundtable's ability to understand and quantify measureable results in the Basin.			

4. To	help us map	WSRA pr	rojects 1	please include a ma	p (Exhibit B) a	nd provide the	general coordinates below:
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Latitude: 40.466157 Longitude: -104.926547

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

This summary has been slightly modified from the original submitted to the South Platte Roundtable. The original application requested basin funding only from the South Platte Roundtable (in addition to State fund). At the July 11, 2017 South Platte Roundtable meeting, the South Platte Roundtable indicated that it would fund the entire \$40,000 basin portion but requested that OWF present to the Metro Roundtable and ask for \$20,000 of the \$40,000. The request reflects the fact that some of the results from this project will include the Metro portion of the geographic South Platte Basin, and because of a desire to collaborate with Metro Roundtable, for example by involving the Education Coordinator position. OWF has since presented this application to the Metro Roundtable at their July 13 meeting, received a positive response, and has been asked to formally request funding via an application and presentation at the August meeting. Because the South Platte Roundtable indicated that it would fund the entire basin request if Metro did not split the cost, and in order to continue moving the application process forward, OWF is submitting this updated grant application to the Metro Roundtable and the CWCB (via Craig Godbout). There is some urgency in moving forward because this project could be aligned with the SWSI Update project in order to leverage SWSI and other data to the benefit of the Roundtables, and allow the Roundtables to more effectively provide input to SWSI and other efforts. Much of the work cited in this grant proposal also has ongoing momentum that would be beneficial to maintain.

The South Platte and Metro Roundtable members have participated in a sequence of studies including multiple Statewide Water Supply Initiative (SWSI) projects and phases, Basin Implementation Plan (BIP), Colorado Water Plan (CWP), and other projects. Although these efforts have yielded impressive compilations of data and information, the results of the studies have not been made accessible in a way that facilitates ongoing data updates and use of the data. Results presented as lengthy documents are difficult to understand and utilize, even for those with water domain knowledge. Detailed datasets in the form of model datasets, complex Excel workbooks, and large geodatabases can also be difficult to understand, but fundamentally must be understood and relied upon. Large complex documents are difficult to update, keep relevant, and integrate with Roundtable processes. A more "agile" and "consumable" solution is needed to help the Roundtables do their work and provide information to members' constituents and the public. This project seeks to increase the knowledge and effectiveness of the Roundtables by creating a data platform for the Roundtables, which can be used to support discussions, planning, strategy, education, etc. The data platform will focus on the integration of existing datasets in an efficient and updatable way. This project is not envisioned as creating a database technology solution that would require costly maintenance. Instead, this project will focus on connecting existing (and new datasets) and leveraging available technology solutions so that datasets can be effectively used by the Roundtables while allowing organizations that are most appropriate to maintain the original datasets.

The Open Water Foundation (OWF) and its staff have been active in CWCB projects for over twenty years, including development of Colorado's Decision Support Systems (CDSS), contributing to SWSI and BIP project teams, and currently are involved in several CWCB projects involving analysis tools, data, and visualization. OWF automated the statewide SWSI gap analysis and has been working on data analysis and visualization tools for environmental & recreational, agricultural, and municipal and industrial uses. The experience of developing and applying tools has given OWF the opportunity to evaluate many datasets and identify the gaps in data and accessibility to data. It has

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become clear that the cross-jurisdictional challenges inherent in analyzing water systems are some of the greatest barriers to effective planning and implementation. Success is often related to understanding the context of problems and solutions, and then leveraging the social/professional network to find solutions within the context of the water resources system.

The WSRA grant funding will pay to develop web resources that consolidate a variety of datasets into information that is useful to Roundtable members for the work that the Roundtables do and in explaining that work to others. For example, maps will list all water providers in the basin, tables will provide basic information such as population served and links to important information such as water conservation programs, water supply programs, agricultural rental programs, and planning documents. Datasets will also be provided to illustrate connections between municipalities and their water providers, illustrating the connectivity within the basin. Lists of water organizations can also be provided, such as environmental interests, and service area. Maps and lists of ditch companies will be provided with information such as area in each county, data download links for CDSS, and connection to municipal water providers. These resources will help the Roundtable members better understand their neighbors within the basin and highlight progress that is being made. The information can also be used to educate other roundtables and interest groups about issues in the basin. It is expected that the web resources will illustrate the complexity of water resources, the progress that is occurring, and the challenges that remain.

How is this project different from other work? The results will not be a one-off product of a study that is buried on a file server. Instead, the results will be a general resource that is publicly available and which benefits the work of the Roundtables and citizens of the South Platte Basin. These resources can also be used by the South Platte Education Coordinator and can be integrated with existing South Platte Basin website(s). OWF will implement transparent and automated processes to use existing datasets from CDSS, studies, and other sources, enhance those datasets where appropriate (such as adding spatial information), and publish the datasets on the web (with attribution) to support the data platform. The tools will allow reprocessing datasets when new data are made available in order to encourage access to the most up-to-date data. The process will leverage work that OWF has already done and continues to do, and will make recommendations to address data gaps.

OWF is requesting an initial increment of funding in this project to demonstrate the data platform, and when complete, an evaluation can determine whether additional investment is appropriate to add more datasets, visualizations, etc. OWF's focus on this project will be to provide a sustainable data platform that can serve as a resource and scale to other basins.

Part III. - Threshold and Evaluation Criteria

Please note that criteria are highlighted in bold font and answers are in non-bold font.

- 1. <u>Describe how</u> the water activity meets these Threshold Criteria. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)
- a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹

1 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under

The project is consistent with Section 37-75-102 Colorado Revised Statutes because the project will not affect any water rights.

b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

The Open Water Foundation is submitting this application for evaluation and approval from the South Platte Basin Roundtable.

Amended from original South Platte Roundtable application: As discussed in Part II, 5, this updated application is being submitted to the Metro Roundtable to determine whether it will split the basin cost. OWF is also submitting to the CWCB to follow through with State fund request. The South Platte Roundtable Chair is expected to submit a letter of support for this project based on the South Platte Roundtable's approval of the project at its July 11, 2017 meeting.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

The Open Water Foundation is submitting this application for evaluation and approval from the South Platte Basin Roundtable.

See note in previous item.

Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

d) Matching Requirement: For requests from the Statewide Fund, the applicants will be required to demonstrate a 25 percent (or greater) match of the total grant request from the other sources, including by not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in Exhibit A of this application)

The Open Water Foundation is prepared to provide in-kind match to meet the requirements of the grant, as indicated below. We view this project as a significant step forward towards efficiency and transparency and the project is aligned with OWF's mission. However, OWF has identified other sources of match that should qualify for meeting the match, as noted below:

- \$50,000 S. D. Bechtel Jr. Foundation grant to implement open data tools for sharing data (current project) primary source of matching funds
- \$50,000 CWCB project for OWF to collaborate with the Colorado Water Institute on "Enhanced Open Data for CO Water Resources" (project ended June 30, 2017 and OWF continues to enhance deliverables)
- \$25,000 CWCB Severance Tax project to update CDSS TSTool software to use new State HydroBase web services (started July 1, 2017)
- \$50,000 (estimated) SWSI Update tasks for OWF related to data management and visualization (current project)
- To be determined Additional grant applications with federal agencies and private foundations
- To be determined Applying for funding for Poudre Basin data and visualization website to support Poudre Runs Through It Study/Action Work Group (pursuing funding)

The total project budget is estimated at \$146,386. OWF is committing approximately \$50,000 in cash match, which combined with the basin funding equates to a 60% cash match toward overall project costs.

Source of Funds

Cash Match (private foundation):	\$46,386
WSRF Basin Account:	\$40,000
WSRF Statewide Account:	\$60,000
Total:	\$146,386

2. For Applications that include a request for funds from the **Statewide Account**, <u>describe how</u> the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference

will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

<u>Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs</u>

a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

The data platform provided by this project will support the efforts of the South Platte and Metro Roundtables, CWCB staff, and consultants in understanding the context of water management goals and needs for consumptive and non-consumptive uses. In many cases the datasets have statewide applicability and in other cases the platform will accommodate basin-specific datasets, such as those created by the South Platte and Metro Roundtables. OWF will enable access to a variety of datasets from various sources in order to provide context for water issues throughout the basin, and illustrate actions being taken to address needs. The integration of data and processes will provide a framework on which additional data can be added to tell the story of the South Platte Basin's efforts.

b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

The project directly promotes cooperation and collaboration among consumptive and non-consumptive interests by improving access to datasets and information that are relevant to multiple entities, in particular through the shared lens of the South Platte and Metro Roundtables, and presenting information in an integrated and accessible fashion. The number of entities such as municipalities and water providers in the basin is finite yet has been a barrier to previous efforts such as SWSI and BIP due to limited resources and project deadlines. The project will demonstrate how existing public datasets can be accessed to address areas of interest to the Roundtables. Additionally, OWF will work with entities to encourage publishing datasets that will benefit the Roundtables and, through greater collaboration, those entities. Special attention will be given to entities that have a broad interest in water issues but have limited technical resources, such as watershed coalitions. OWF will also continue collaborating with nonprofits that provide useful services, such as Colorado Water Trust, Colorado Water Congress, and Colorado Foundation for Water Education. OWF is also actively working to develop tools to support local efforts such as the Poudre Runs Through It Study/Action Work Group, which is coordinated by the Colorado Water Institute (see attached letter of support), and the South Platte Roundtable Data Platform is envisioned to integrate with more detailed local efforts. OWF will also work with the South Platte Education Coordinator to support education and outreach efforts.

c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

A challenge to understanding water supply gaps is to understand the context from the perspective of individual providers interfaced with the larger basin and State issues. This project will present datasets in ways that clearly indicate data gaps so that it is easier to understand where data exist and where data are limited. Rather than creating data, the project will integrate datasets that have not traditionally been utilized. For example, data in water efficiency plans are generally one of the best sources of information. OWF will utilize SWSI data and as necessary student interns to mine such data and demonstrate how it can be used to understand the need for projects. This information will help proponents of projects convey the need for projects at the local level and the benefit of projects within the South Platte Basin.

Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).

The Roundtable members have participated in multiple large studies and this will continue on a cycle with SWSI and BIP updates. However, to date, an accessible data platform to support the work of the Roundtables has been lacking. Ongoing and future projects at the CWCB level will be challenged to provide the Roundtables with an integrated data platform with "fingertip access" to useful datasets. Other Roundtables, in particular the Colorado Basin Roundtable, are investing in data management and access to facilitate their work. Without this project, the South Platte and Metro Roundtables will continue to operate without a cohesive data platform. Buy-in from the Roundtables will establish data infrastructure that can be leveraged in the short and long term and can be enhanced to respond to Roundtable needs.

e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

This project demonstrates the Open Water Foundation's commitment to advancing the use of water data to support Roundtable efforts and the efforts of the broader South Platte community. Open Water Foundation will commit its technical resources, provide matching funds, and will leverage the project to find additional matching funds that can contribute to the initial project and future phases. OWF is in a unique position to collaborate with the Roundtable on a data platform that can facilitate the work of the Roundtable to meet short- and long-term needs.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

This project will provide context and improved access to datasets that illustrate challenges to sustaining agriculture, open space, and environmental and recreational needs. The project will also highlight

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progress in these areas in order to help the Roundtables tell their stories. For example, visualizations will be implemented to illustrate environmental flow requirements at several key locations, leveraging work in the BIP, and coordinating with Colorado Parks and Wildlife. Progress will be illustrated by highlighting locations where fish passage has been added to diversion structures and agreements have been implemented to ensure environmental flows, such as Colorado Water Trust projects (with links to web pages for those projects). Visualizations and data will also illustrate water demand and supply issues for agriculture and municipalities.

g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

OWF will create (or reference) a visualization to illustrate the South Platte compact requirement with Nebraska using stream gage data. This will illustrate the terms of the compact and also help people understand the level of flow above the compact requirement, which is of interest to proponents of additional storage.

h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

This project can provide some benefit to assisting recovery of threatened and endangered wildlife species and Colorado State species of concern. This will be accomplished by publishing simple datasets of stream mile for different species, based on work completed in the South Platte BIP. For example, SWSI datasets for species of concern will be used with DWR Source Water Route Framework stream layer to indicate reaches where species are of concern and this information can be used in planning discussions. OWF also envisions publishing a list of diversion structures and whether they include fish passage. These datasets exist in some form but are not currently readily accessible to the Roundtable or public. Establishing a protocol for publishing such data will allow the datasets to be updated over time.

i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

OWF is seeking funding at a level that will result in substantial functionality to the benefit of the Roundtable, CWCB, and the public. We recognize the benefit of demonstrating and evaluating an initial product and have sized the project accordingly. OWF has a track record of building and enhancing tools that are useful throughout the State and this project takes the same approach. This approach of having a long-vision roadmap and making incremental progress has allowed CDSS and other tools to be enhanced and applied to a wider and wider number of implementations, while ensuring that investment in tools has a high rate of return. It is expected that some, if not all, of the work that OWF does on this project could be adopted by other Roundtables, and some statewide datasets can be made available statewide. Consequently, the investment in this project will be felt throughout the State.

j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

This project will leverage data from CWCB programs and add additional value that will benefit CWCB programs. CWCB staff are challenged by their commitments on programs and projects, including ongoing commitments to participate in regular roundtable, IBCC, and other meetings. Contracted

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projects, such as SWSI and BIP, distribute workload to consultants; however, these projects do not necessarily establish a long-term platform that integrates with CWCB programs and meets the ongoing needs of the Roundtables. CWCB also has information technology challenges that limit its ability to provide data management to the Roundtable. This project will add value by establishing protocols for data integration that will benefit the CWCB and Roundtable and will scale to other basins, while at the same time being consistent with long-term efforts such as CDSS.

Part IV. - Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

The project will focus on the South Platte River and its tributaries in the South Platte Basin, in particular utilizing new data such as DWR's Source Water Route Framework, which allows data to be associated with water sources used in the State's HydroBase database. Attention will be given to associating planning data with water source spatial data, so that additional analysis can be performed. For example, OWF will work on standards to associate the South Platte StateMod model with spatial and other data to the benefit of the Roundtable. Attention will be given to the Poudre River through coordination with the Poudre Runs Through It (PRTI) Study/Action Work Group. OWF founder Steve Malers is a participant in the PRTI and is incubating an initiative to develop a Poudre River dashboard to help PRTI and other stakeholders ensure that the Poudre is a healthy working river.

This project will not focus on specific water projects and water rights but will instead establish a data platform that can utilized for specific projects. OWF is also a consultant on the SWSI Update and will coordinate the South Platte Basin Data Platform project with SWSI Update efforts.

2. Please provide a brief narrative of any related studies or permitting issues.

The Open Water Foundation has been involved in numerous studies and has made consistent progress to advance access to data and information in support of water resources planning and projects. OWF has helped to create and support Colorado's Decision Support Systems tools and the application of tools and data in Colorado, Rio Grande, South Platte, and Arkansas Basins. OWF has been a consultant in SWSI 2004, HB 1278 South Platte Groundwater Study, Basin Needs Decision Support System (BNDSS) associated with SWSI 2010, South Platte Basin Implementation Plan, SWSI Update, and many projects involving use of CDSS. This experience provides insight on challenges and opportunities related to integrated data for water resources.

No permitting issues are related to the project.

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement**. All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

See the attached statement of work in document "ExhibitA-SOW-OWF-WSRF-SouthPlatteDataPlatform.pdf".

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

Water Supply Reserve Account – Application Form

Revised October 2013

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

Signature of Applicant: LA M

Print Applicant's Name: Steve Malers

Project Title: South Platte Basin Roundtable Data Platform

Date: April 30, 2017 (and July 21 for amended content)

Return an electronic version (hardcopy may also be submitted) of this application to:

Craig Godbout – WSRA Application Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203 303-866-3441, ext. 3210 (office) 303-547-8061 (cell) craig.godbout@state.co.us