

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 20-21, 2019
Agenda Item 24(j)

Applicant & Grantee: Turner Ditch Company

Water Activity Name: Turner Lone Cabin Ditch Combination Salinity Reduction Project

Water Activity Purpose: Agricultural/Implementation

County: Delta & Gunnison

Drainage Basin: Gunnison

Water Source: Minnesota & Reynolds Creeks

Amount Requested: \$50,000 Gunnison Basin Account
\$125,000 Statewide Account
 \$175,000 Total Request

Matching Funds: Applicant Match & 3rd party (cash & in-kind) = \$5,956,136
 • 4,764% of the Statewide Account request (meets 10% min)
 Basin Account Match = \$50,000
 • 40% of the Statewide Account Match (meets 10% min)
 Total Match (Applicant & Basin Account) = \$6,006,136
 • 4,805% of the Statewide Account request (meets 50% min)

Staff Recommendation:
 Staff recommends approval of up to \$50,000 from the Gunnison Basin Account, and \$125,000 from the Statewide Account to help fund the project titled: Turner Lone Cabin Ditch Combination Salinity Reduction Project.

Water Activity Summary: WSRF grant funds, if approved, will assist the Turner Ditch Company and the Bureau of Reclamation to combine the irrigation operations of Turner Ditch, Lone Cabin Ditch and Reservoir, and Sweezy-Turner Ditch (all Ditches located in the Minnesota Creek and/or Reynolds Creek drainages) into a closed, pressurized delivery system. The project objectives are to:

- (1) Decommission the use of 9.5 miles (out of 25 miles total) of open earthen ditches and their implied easements and associated structures;
- (2) Replace the remaining 15.5 mi of existing open ditch with HDPE and/or PVC plastic pipe;
- (3) Construct a new Turner diversion structure at the existing Sweezy-Turner diversion;
- (4) Pressurize the resulting combined system in excess of 50 psig;
- (5) Allow the new Lone Cabin system to directly access their Beaver Reservoir water (300 ac-ft) without water trades via a “connection” to the new Turner system;
- (6) Clean the irrigation water of vegetable matter down to 25 mesh (about 1 mm) using wedge screen at all head-gates.

This Project will eliminate delivery system losses (approximately 40%) and encourage on-farm sprinklers via pressure as a high efficiency replacement for flood irrigation in both the Reynolds and Minnesota Creek drainages. Irrigation water will be “geologically detained” of alkalinity and selenium.

While the Bureau of Reclamation Salinity Control Project will address all of the above mentioned infrastructure components, WSRF Grant funds will be employed exclusively on the Lone Cabin portions (pipeline and reservoir transition structure) of the overall project as highlighted in the Statement of Work (Exhibit A) and the Budget and Schedule Table (both of which are attached).

Discussion: This effort will assist the Gunnison Basin Roundtable achieve the goal of protecting existing water uses in the Gunnison Basin by improving agricultural water supplies via efficiency to reduce shortages as called for in the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of improving the local agricultural economy with increased crop production, improving the efficiency of off-farm water delivery systems and on-farm crop irrigation, promoting a healthy environment by improving water quality in the Colorado River Basin, as well as assisting the state meet water supply gaps as called for in Chapter 10 of Colorado’s Water Plan.

Issues/Additional Needs: The applicant/grantee needs to secure to additional grant awards and provide documentation of these awards prior to entering into a grant contract with the state, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair’s Recommendation Letter and the WSRF Grant Application for applicant’s detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Bureau of Reclamation Salinity Project Grant	\$5,581,136	\$0	\$5,581,136	Pending
CWCB Water Plan Grant	\$175,000	\$0	\$175,000	Pending
Turner Ditch Company	\$0	\$200,000	\$200,000	Secured
Sub-total	\$5,756,136	\$200,000	\$5,956,136	
WSRF Gunnison Basin Account	\$50,000	\$0	\$50,000	Secured
Sub-total	\$5,806,136	\$200,000	\$6,006,136	
WSRF Statewide Account	\$125,000	\$0	\$125,000	
Total Project Costs	\$5,931,136	\$200,000	\$6,131,136	

CWCB Project Manager: Alex Funk

*The Gunnison Basin Roundtable
210 West Spencer, Suite B
Gunnison, CO 81230*

February 4, 2019

Mr. Craig Godbout
Water Supply Management Section
COLORADO WATER CONSERVATION BOARD
1313 Sherman St., Room 718
Denver, CO 80203

Re: WSRF Grant Request: Turner and Lone Cabin Ditch – Combination Salinity Reduction Project

Dear Mr. Godbout:

This letter is presented to advise you that the grant application submitted by the Turner Ditch Company for \$125,000 from Statewide Account funds and \$50,000 from Basin Account funds from the Water Supply Reserve Fund for the Turner and Lone Cabin Ditch Combination Salinity Reduction Project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee. The request for funding was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on January 21, 2019.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines. In addition, this project meets Goals 1, 2, 3 and 8 of the Gunnison Basin Implementation Plan.

Thank you for your support of this grant application.

Sincerely,



Frank J. Kugel
Gunnison Basin Roundtable

cc: Kathleen Curry (email)
Tom Alvey (email)
Turner Ditch Company, applicant (email)

Last Update: July 31, 2018

Colorado Water Conservation Board
Water Supply Reserve Fund Grant Application

Instructions		
<p>All WSRF grant applications shall conform to the current 2016 WSRF Criteria and Guidelines.</p> <p>To receive funding from the WSRF, a proposed water activity must be approved by a Roundtable(s) AND the Colorado Water Conservation Board (CWCB). The process for Roundtable consideration and recommendation is outlined in the 2016 WSRF Criteria and Guidelines. The CWCB meets bimonthly according to the schedule on page 2 of this application.</p> <p>If you have questions, please contact the current CWCB staff Roundtable liaison:</p>		
<p>Arkansas</p> <p>Ben Wade ben.wade@state.co.us 303-866-3441 x3238</p>	<p>Gunnison North Platte South Platte Yampa/White</p> <p>Craig Godbout craig.godbout@state.co.us 303-866-3441 x3210</p>	<p>Colorado Metro Rio Grande Southwest</p> <p>Megan Holcomb megan.holcomb@state.co.us 303-866-3441 x3222</p>

WSRF Submittal Checklist (Required)	
x	I acknowledge this request was recommended for CWCB approval by the sponsoring roundtable.
x	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines .
x	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract . ⁽¹⁾
Application Documents	
x	Exhibit A: Statement of Work ⁽²⁾ (<i>Word – see Template</i>)
x	Exhibit B: Budget & Schedule ⁽²⁾ (<i>Excel Spreadsheet – see Template</i>)
x	Letters of Matching and/or Pending 3 rd Party Commitments ⁽²⁾
x	Map ⁽²⁾
	Photos/Drawings/Reports
x	Letters of Support
Contracting Documents ⁽³⁾	
	Detailed/Itemized Budget ⁽³⁾ (<i>Excel Spreadsheet – see Template</i>)
	Certificate of Insurance ⁽⁴⁾ (<i>General, Auto, & Workers' Comp.</i>)
	Certificate of Good Standing ⁽⁴⁾
	W-9 Form ⁽⁴⁾
	Independent Contractor Form ⁽⁴⁾ (<i>If applicant is individual, not company/organization</i>)
	Electronic Funds Transfer (ETF) Form ⁽⁴⁾

(1) Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

(2) Required with application if applicable.

(3) Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

(4) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	December 1	Basin Account; BIP
March	February 1	Basin/Statewide Account; BIP
May	April 1	Basin Account; BIP
July	June 1	Basin Account; BIP
September	August 1	Basin/Statewide Account; BIP
November	October 1	Basin Account/BIP

Desired Timeline	
Desired CWCB Hearing Month:	March 2019
Desired Notice to Proceed Date:	October 2019

Water Activity Summary	
Name of Applicant	Turner Ditch Company, Paonia, Colorado [Turner Ditch Company is the designated incorporated entity representing both Turner Ditch Company and Lone Cabin Ditch and Reservoir Company]
Name of Water Activity	Turner and Lone Cabin Ditch-Combination Salinity Reduction Project
Approving Roundtable(s)	Basin Account Request(s) ⁽¹⁾
Bureau of Reclamation 2019 FOA	\$5,581,136.47
Gunnison Basin WSRF	\$50,000.00
Statewide WSRF	\$125,000.00
In-Kind Funds from Turner Ditch Company	\$200,000.00
Colorado Water Plan Grant	\$175,000.00
Basin Account Request Subtotal	\$50,000.00
Statewide Account Request ⁽¹⁾	\$125,000.00
Total WSRF Funds Requested (Basin & Statewide)	\$175,000.00
Total Project Costs	\$6,131,136.47

(1) Please indicate the amount recommended for approval by the Roundtable(s)



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Grantee and Applicant Information	
Name of Grantee(s)	Turner Ditch Company
Mailing Address	12552 Roeber Road, Paonia, CO 81428
FEIN	84-0339510
Grantee's Organization Contact ⁽¹⁾	Steven J. Kossler
Position/Title	Turner Ditch Company President
Email	cowkoss@gmail.com
Phone	970-216-5578
Grant Management Contact ⁽²⁾	Paul J. Maudlin
Position/Title	Turner Ditch Company Board Member, Project Manager
Email	excelsior@paonia.com
Phone	970-333-2190
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	

(1) Person with signatory authority

(2) Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>Grantee: Turner Ditch and Lone Cabin Ditch and Reservoir Companies (Ditches Located SE of Paonia)</p> <p>Turner Ditch Company is the designated entity representing both Turner Ditch Company and Lone Cabin Ditch and Reservoir Company, Presidents: Steven J. Kossler and James R. Briscoe, respectively. MOA available upon request.</p> <p>The Turner Ditch system serves 47 farms with 9 miles of open unlined ditch where crossings of unstable Mancos Shale hillsides in the Minnesota Creek drainage have been problematic. Irrigation operations include one diversion structure on Minnesota Creek, three lateral ditches on Lamborn Mesa and 55 user take-outs.</p> <p>The Lone Cabin Ditch system serves 15 farms with 17.2 miles of open unlined ditch which includes two water intake diversions on Minnesota Creek's Lake Fork, three lateral ditches on Lamborn Mesa and 15 user take-outs. The system also includes a Trade/Transfer Ditch (24,171 feet in length) and a</p>



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secondary collection ditch called the Highline Ditch (14,250 feet) above and to the southeast of Lone Cabin Reservoir.

The above ditch systems both access Beaver Reservoir (700 ac-ft of storage) and irrigates a total of approximately 1000 acres of farmland.

Type of Eligible Entity (check one)	
	Public (Government): municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. 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
x	Private Incorporated: mutual ditch companies, homeowners associations, corporations
	Private Individuals, Partnerships, and Sole Proprietors: are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations: broadly, any organization that is not part of the government
	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes

Type of Water Activity (check one)	
	Study
x	Implementation

Category of Water Activity (check all that apply)		
	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
x	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
	Other	Explain:

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Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable. see site Maps 1.1, 1.2, 1.3	
County/Countries	Mostly Delta County but also Gunnison County
Latitude	38.85538111 ^o
Longitude	107.5639111 ^o

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>
<p>Our Salinity Control Project proposes to <i>combine</i> the irrigation operations of Turner Ditch, Lone Cabin Ditch and Reservoir, and Sweezy-Turner Ditch, all Ditches located in the Minnesota Creek and/or Reynolds Creek drainages into a closed, pressurized delivery system. The project objectives are to:</p> <ol style="list-style-type: none"> (1) Decommission the use of 9.5 miles (out of 25 miles total) of open earthen ditches and their implied easements and associated structures; (2) Replace the remaining 15.5 mi of existing open ditch with HDPE and/or PVC plastic pipe; (3) Construct a new Turner diversion structure at the existing Sweezy-Turner diversion; (4) Pressurize the resulting combined system in excess of 50 psig; (5) Allow the new Lone Cabin system to directly access their Beaver Reservoir water (300 ac-ft) without water trades via a “connection” to the new Turner system; (6) Clean the irrigation water of vegetable matter down to 25 mesh (about 1 mm) using wedge screen at all head-gates. <p>This Project will eliminate delivery system losses (approximately 40%) and encourage on-farm sprinklers via pressure as a high efficiency replacement for flood irrigation in both the Reynolds and Minnesota Creek drainages. Irrigation water will be “geologically detained” of alkalinity and selenium.</p> <p>CWCB funding (plus match) will be focused on diversion and piping of Lake Fork water located on the upper reach of Lone Cabin Ditch, leveraging a larger Bureau of Reclamation (BoR) FOA Project.</p> <p>Also see Fig. 7: Letters of Support</p>

Measurable Results



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Measurable Results	
To catalog measurable results achieved with WSRF funds please provide any of the following values.	
0	New Storage Created (acre-feet). No new storage constructed.
1701 ac-ft	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive. Value achieved via sprinklers made feasible by a pressurized closed system [80%UF(2) x (85% - 32%) x transported volume 4011 ac-ft (1)].
1754 ac-ft	Existing Storage Preserved or Enhanced (acre-feet). Value achieved via better management of Beaver and Lone Cabin Reservoirs [Half of Lone Cabin's share of Beaver Reservoir storage 300 ac-ft is lost in the trade ditch]. Also elimination of seepage loss (calculated below as 1604 ac-ft) represents a virtual reservoir to better manage Beaver Reservoir by delaying its usage to late season.
1000 ft	Length of Stream Restored or Protected (linear feet). Stream (Mn Creek) protected using BoR Habitate Replacement funds.
1604 ac-ft	Efficiency Savings (indicate acre-feet/year OR dollars/year). Value achieved via elimination of ditch seepage [transported volume 4011 ac-ft x 40%(3)].
37 acres	Area of Restored or Preserved Habitat (acres). Value achieved via habitat replacement land + 32 acres of ditch right-of-way remediated [5ac + ((26mi(4) x 5280) x 10ft) / 43560].
15.5 miles	Length of Pipe/Canal Built or Improved [2017 BoR FOA Proposal]
3324 tons of salt	Other Explain: Water Quality improvements (via detention of salinity and proportional quantity of Se) [2017 BoR assigned salt load].

(1) State database seasonal flow volume summed for the three ditches Turner, Lone Cabin, Sweezy-Turner

(2) Roughly 80% of irrigated acres currently use Unimproved Flood irrigation

(3) Average BoR open-ditch loss

(4) Total length of open ditch associated with current system

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the respective Roundtable Basin Implementation Plan and Education Action Plan ⁽¹⁾. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in 2016 WSRF Criteria and Guidelines).</p>



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Water Activity Justification

The Turner and Lone Cabin Ditch-Combination Salinity Reduction Project is consistent with the following goals of the Colorado Water Plan (CWP Section 10, pgs. 3-4):

- Improves the local agricultural economy with increased crop production
- Greatly improves the efficiency of off-farm water delivery systems and on-farm crop irrigation
- Promotes a healthy environment by improving water quality in the Colorado River Basin

This project supports the Colorado Water Plan’s identified Agricultural Critical Actions to (CWP Section 10, pg.10):

- Maintain and increase agricultural viability
- Support agricultural water conservation and efficiency. The Project objective to construct a closed, pressurized system reduces delivery losses by 40%, and with increased sprinkler use over flood irrigation reduces by 50% the water needed for on-farm crop production

By reducing salinity and selenium contributions to the North Fork of the Gunnison River, this project supports Watershed Health, Environment and Recreation critical actions (CWP Section 10, pg. 12):

- Recover Imperiled Species by improving water quality in aquatic habitats that may be occupied by endangered species
- Promote Protection and Restoration of Water Quality

Renovation of the Turner, Lone Cabin and Sweezy-Turner irrigation delivery systems helps meet the following water supply gaps identified in SWSI 2010:

- Current Agricultural Demand gap of 128,000 AFY in the Gunnison Basin, (SWSI 2010 ES-19)
- Projected 2050 Agricultural Demand gap of 116,000 AFY in the Gunnison Basin, (SWSI 2010 ES-22)

This project also meets the following draft Vision Goals identified in SWIS 2010 (ES-28):

- Meet agricultural demands
- Optimize existing and future water supplies by - Minimizing non-beneficial consumptive use, e.g., overuse of water supplies by flood irrigation
- Promote cost-effectiveness by: -Achieving benefits at the lowest cost, by leveraging state contributions to secure significant federal funding

This project supports the following Gunnison Basin Roundtable goals, (GBRT BIP pg 2):

- Primary Goal: Protect existing water uses in the Gunnison Basin
- Discourage the conversion of productive agricultural land to all other uses
- Improve agricultural water supplies via efficiency to reduce shortages
- Improve water quality

CWCB funding for this project would complement BoR FOA salinity and other CWCB programs.

(1) Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Basin Account Requests

Basin (only) Account grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3rd party and shall be accompanied by a **letter of commitment** as described in the 2016 WSRF

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Matching Requirements: Basin Account Requests	
Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
Statewide Account grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3 rd party) and shall be accompanied by a letter of commitment . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
2017 BoR FOA Salinity Project	\$5,581,136.47 cash
Colorado Water Plan Grant (see Fig. 6)	\$175,000.00 cash
In-Kind Funds from Turner Ditch Company	\$200,000.00 in-kind
Gunnison Basin	\$50,000.00 cash
Total Match	\$6,006,136.47
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



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Related Studies

Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.

The engineering feasibility and cost effectiveness of the Turner and Lone Cabin Ditch-Combination Salinity Reduction Project has been studied in four previous BoR FOA proposals (2010, 2012, 2015 & 2017), the most recent of which has both a cost analysis and construction gantt chart included in Exhibit C. The 2017 Project Proposal was submitted last November 14th as a 2017 BoR FOA Salinity Detention Project.

A comprehensive geology survey of the Minnesota Creek and Reynolds Creek drainages was published in 2015, i.e., the Open File Report 15-07, Geological Map of the Paonia Quadrangle, by D. Noe, Colorado Geological Survey David Noe, Colorado Geological Survey, 2015.

A recent environmental assessment (EA) was performed in support of the Minnesota Canal BoR FOA Project (2012 study). This EA studies the same two drainages (Minnesota and Reynolds Creek drainages) as those containing the proposed Turner and Lone Cabin Ditch-Combination Salinity Reduction Project.

Previous CWCB Grants

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order

Lone Cabin Ditch and Reservoir Company currently has two outstanding CWCB loans (Contract numbers C153517 and C150361), both of which are associated with reservoir repairs. The Gunnison Basin Round Table approved these grant/loan projects.

Tax Payer Bill of Rights

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.



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

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Not Applicable



Last Update: January 9, 2018

Colorado Water Conservation Board	
Water Supply Reserve Fund	
<u>Exhibit A - Statement of Work</u>	
Date:	November 30, 2018
Water Activity Name:	Turner and Lone Cabin Ditch-Combination Salinity Reduction Project
Grant Recipient:	Turner Ditch Company
Funding Source:	Bureau of Reclamation, 2019 Salinity FOA
Water Activity Overview: (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for.	
<p>Our Salinity Control Project proposes to <i>combine</i> the irrigation operations of Turner Ditch, Lone Cabin Ditch and Reservoir, and Sweezy-Turner Ditch located in the Minnesota Creek and Reynolds Creek drainages into a closed, pressurized delivery system (please see Maps A.1.1 thru A.1.3 for the existing system ditching and Maps A.2.1 thru A.2.3 for the new pipeline routes). The project objectives are to:</p> <ol style="list-style-type: none"> (1) Decommission the use of 9.5 miles (out of 25 miles total) of open earthen ditches and their implied easements and associated structures; (2) Replace the remaining 15.5 mi of existing open ditch with HDPE and/or PVC pressure rated pipe; (3) Construct a new Turner diversion structure at the existing Sweezy-Turner diversion; (4) Pressurize the resulting combined system in excess of 50 psig; (5) Allow the new Lone Cabin system to directly access their Beaver Reservoir water (300 ac-ft) without water trades via a “connection” to the new Turner system; (6) Clean the irrigation water of vegetable matter down to 25 mesh (about 1 mm) using wedge screen at all head-gates. <p>This Project will eliminate delivery system water losses (approximately 40%) and encourage on-farm sprinklers via pressurization as a high efficiency replacement for flood irrigation in both the Reynolds Creek and Minnesota Creek drainages. Irrigation water will be detained of alkalinity and selenium.</p>	



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CWCB funding will be focused on diversion and piping of intake water located on the upper reach of Lone Cabin Reservoir, leveraging a larger BoR FOA Project.

Objectives: (List the objectives of the project)

See the Objectives in above “Water Activity Overview”

Tasks

Provide a detailed description of each task using the following format:

Task 1 – Pipeline between Lone Cabin Headgate and Lone Cabin reservoir (0.6mi)

Description of Task:



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Tasks
<p>Install 3020 ft of 24” plastic pipe (HDPE DR 32.5) according to BoR specifications starting at the new Lone Cabin Ditch Lakefork headgate (funded from other sources) and routed west toward Lone Cabin reservoir. The distance between headgate and reservoir is 2 miles but the first 3020 ft has unstable geology (Mancos shale beds) which requires the use of HDPE; the remaining 1.4 mi can be piped with less expensive PVC which is not part of this task. The flow capacity of this piping segment has a design flowrate of 12 cfs and realizes water velocities less than 5 ft/s. The Budget & Schedule Task 1 funding of \$230k includes ground preparation, pipe, fittings and installation.</p>
<p>Method/Procedure:</p> <p>A construction engineering firm will be under contract to perform tasks focused on the installation of the new Lone Cabin System. Oversight of the installations will be provided by the design engineering firm. Administration and technical oversight will be provided by Turner Ditch Company Board members.</p>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p> <ul style="list-style-type: none"> Completed installation of the Lone Cabin System piping segment starting at the Lakefork headgate moving west through 3020 ft of unstable geology
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p> <p>Six-month status reports of subtasks, and copies (if applicable) of associated deliverables.</p>

Tasks



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Tasks
Provide a detailed description of each task using the following format:
Task 2 - Lone Cabin reservoir transition structure
<p>Description of Task:</p> <p>Construct a transition structure spillway starting at an overlook location 200 vertical feet above the Lone Cabin reservoir where irrigation water exits the pipeline and drops towards the reservoir. This spillway would consist of a concrete structure (an anchor) securing a section of perforated plastic pipe, and an earthen trough lined with plastic sheeting and filled with irregularly shaped boulders. A 100 ft segment of 24” HDPE plastic pipe will also be installed as an entrance into this concrete structure. The overall purpose of this transition structure is to dissipate the energy of gravity-driven-water before entering the reservoir. The Budget & Schedule Task 2 funding of \$120k includes ground preparation, concrete structure anchor, HDPE entrance pipe, perforated plastic pipe, fittings, plastic sheeting, boulders and installation.</p>
<p>Method/Procedure:</p> <p>A construction engineering firm will be under contract to perform tasks focused on the installation of the new Lone Cabin System. Oversight of the installations will be provided by the design engineering firm. Administration and technical oversight will be provided by Turner Ditch Company Board members.</p>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p> <ul style="list-style-type: none"> Completed installation of the Lone Cabin System transition structure where 12 cfs of water falling 200 vertical feet is safely delivered into the reservoir
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p> <p>Six-month status reports of subtasks, and copies (if applicable) of associated deliverables.</p>

Budget and Schedule
<p>Budget: This Statement of Work and Schedule shall be accompanied by a Budget that reflects the Tasks identified in the Statement of Work and Schedule and shall be submitted to CWCB in an excel format.</p> <p>See Figs. 5 and 3, budgets for the WSRF project and the BoR Salinity project, respectively.</p>



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Budget and Schedule

Schedule: This Statement of Work and Budget shall be accompanied by a Schedule that reflects the Tasks identified in the Statement of Work and Budget and shall be submitted to CWCB in an excel format.

See Figs. 5 and 4, schedules for the WSRF project and the BoR Salinity project, respectively.

Reporting Requirements

Progress Reports: The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

Final Report: At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

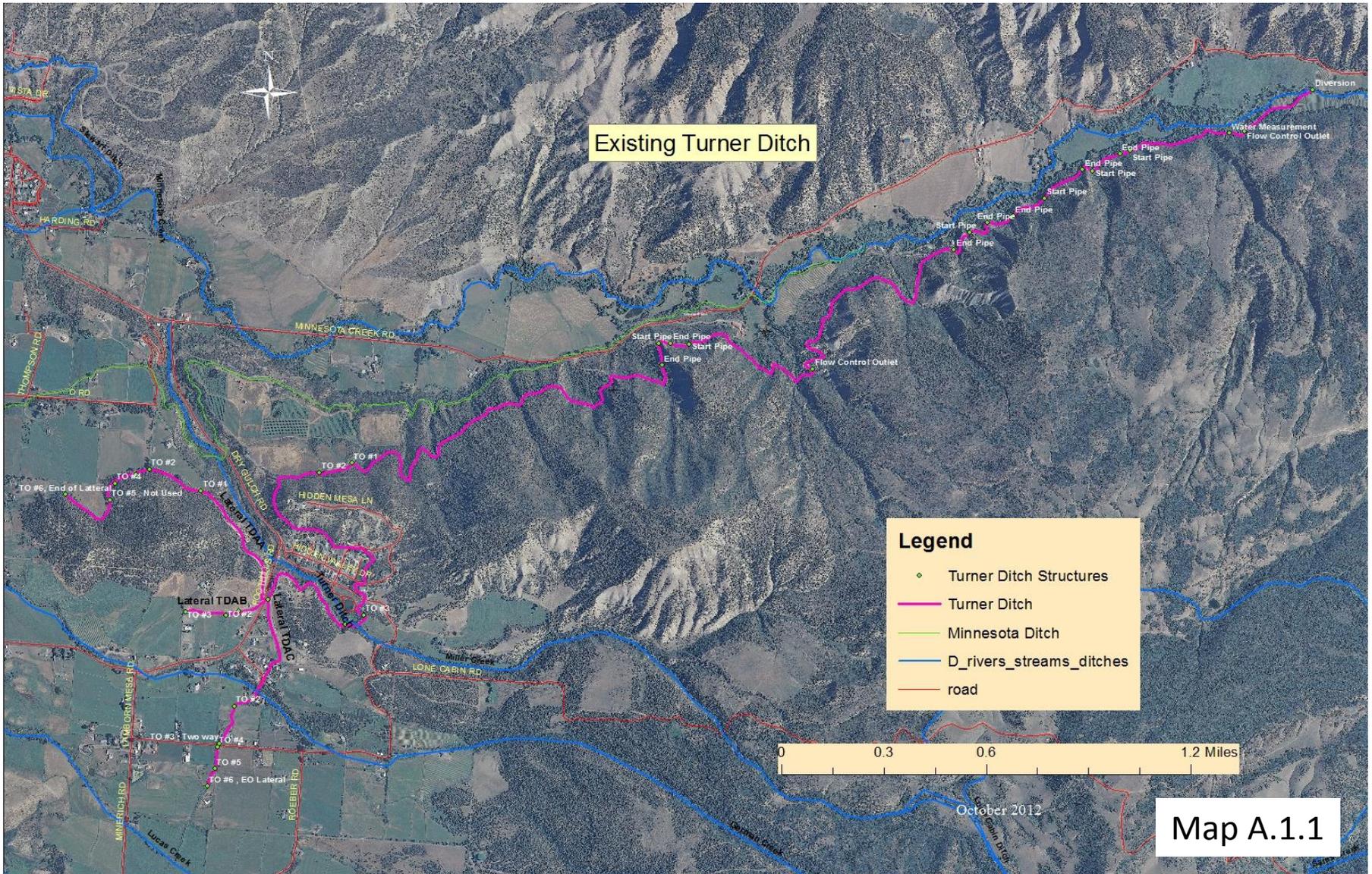
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.



Last Update: January 9, 2018

Reporting Requirements

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



Map A.1.1

Existing Lone Cabin System

MAP #2 EXISTING SYSTEM

LONE CABIN DITCH
AND RESERVOIR COMPANY

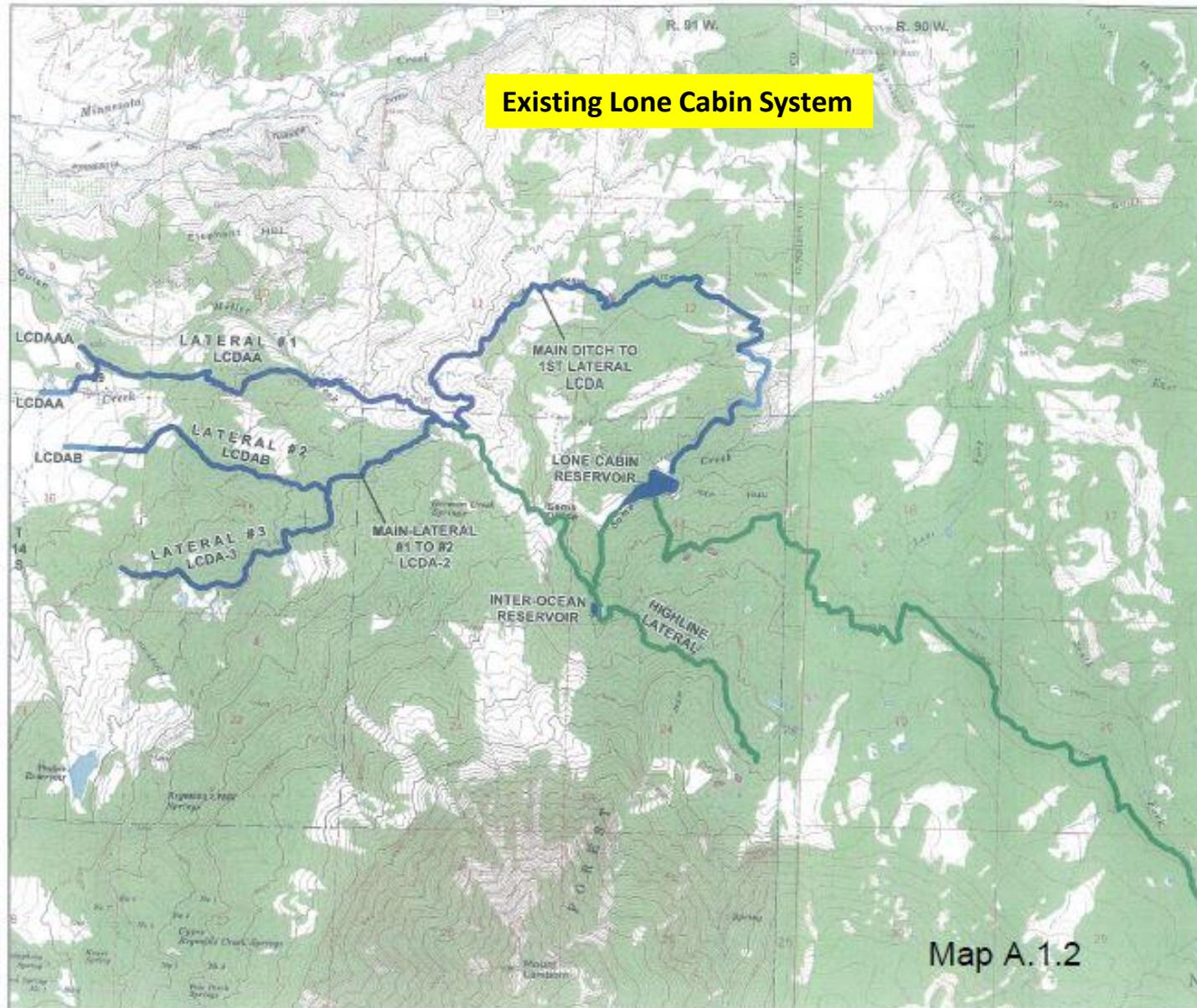
2017 BoR FOA Proposal

— Project Area – Lower Ditches

— PROJECT AREA - EXISTING PIPE

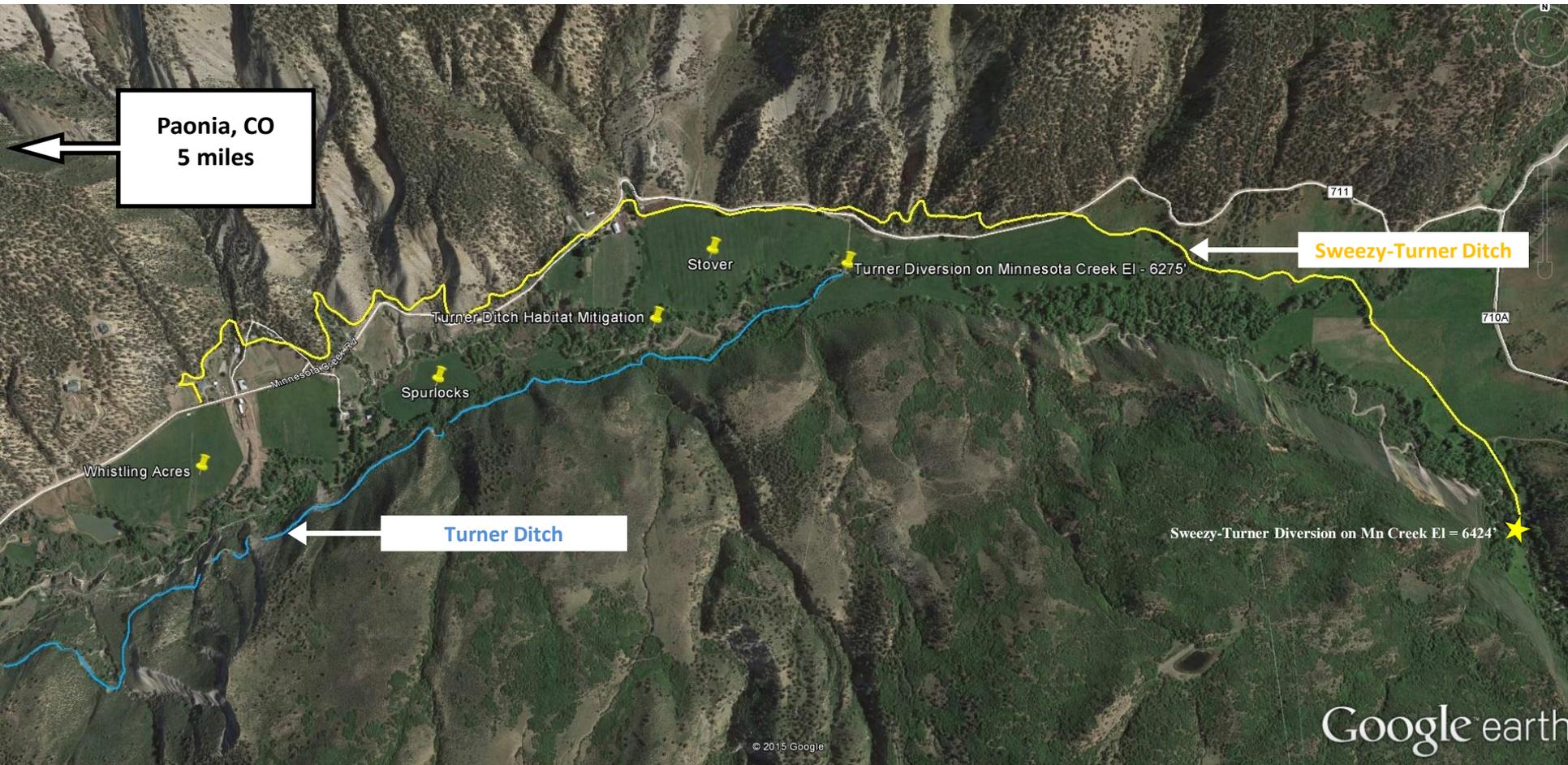
— Project Area – Upper Ditches

LCDAA DITCH NAME



Map A.1.2





Map A.1.3: Existing Sweezy-Turner Ditch Alignment Shown Relative to Turner Ditch

Map A.2.2: New System East

Project East

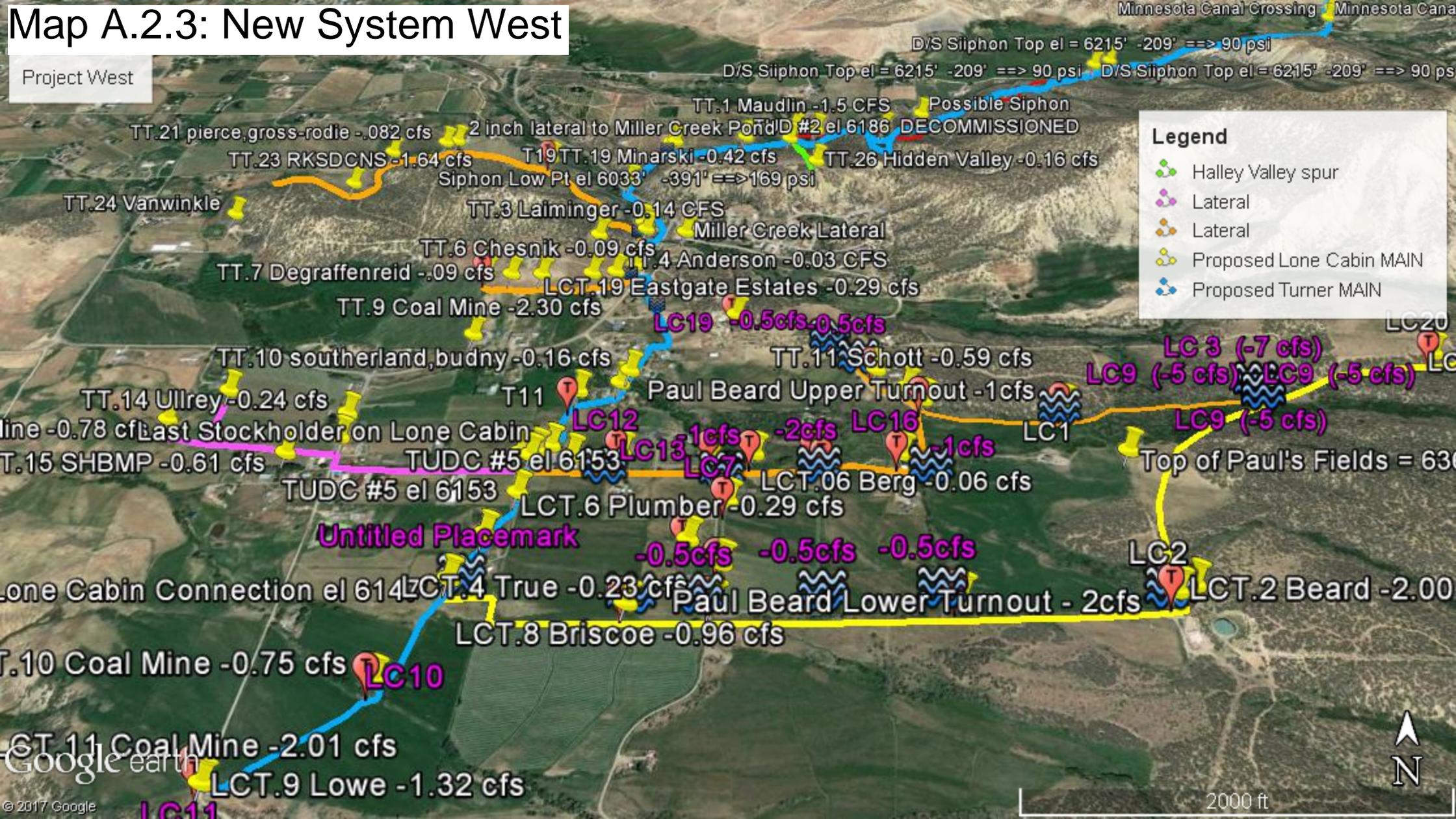
Legend

- 6 Lateral
- Proposed Lone Cabin MAIN
- Proposed Turner MAIN



Map A.2.3: New System West

Project West



RECLAMATION

Managing Water in the West

**Salinity Control Program
State Representative Review
For Bureau of Reclamation 2017
Funding Opportunity Announcement
BOR-UC-17-F003**

(THIS LETTER IS RECOMMENDED, BUT NOT REQUIRED)

Project Name: Turner and Lone Cabin Ditch Combination Project

Sponsor Submitting Proposal: Turner Ditch Company

Date of Review: 10/12/17

I, [Brent Newman-CO, Robert King-UT, Keenan Hendon-WY or Paul Harms-NM] Brent Newman have reviewed the proposed salinity project referred to me by the sponsor and find that:

1. The project meets the objectives of the Colorado River Basin Salinity Control Program.
2. The project is consistent with the State's goal to maximize the efficient beneficial use of water.
3. The sponsor has been provided with information about additional sources of funding that are available to support the project.
4. I concur in the sponsor submitting this application under the USBR's Funding Opportunity Announcement.



Signature of State Representative

11/3/17

Date



Colorado State Conservation Board

**Colorado Department of Agriculture
State Conservation Board
Salinity Control Program Concurrence Letter
For Bureau of Reclamation
2017 Funding Opportunity Announcement
BOR-UC-17-F003**

Project Name: Lone Cabin/Turner/Sweezy

Sponsor Submitting Proposal: Turner Ditch Company

The Colorado State Conservation Board has reviewed the proposed salinity project and finds that it concurs with the conservation objectives of the State of Colorado and its local governmental entities.

Signature State of Colorado Salinity Coordinator

10/12/17

Date

Comments from Colorado Department of Agriculture: