

**SJRIP San Juan and Animas Rivers Temperature Gauges
2019 Project Proposal**

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BACKGROUND:

Temperature information is required at several gauges in the San Juan River at the following locations:

- 09355500 - San Juan River near Archuleta, NM - Real time on web
- 09365000 - San Juan River at Farmington, NM - Real time on web
- 09364500 - Animas River at Farmington, NM - Stand alone temperature probe until we can get access to install a wired probe.
- 09381010 - San Juan River at Four Corners, CO - Real time on web (after we configure our database on Monday).

METHODS:

River Temperature Gauges

The USGS has installed and maintains 4 temperature probes in the San Juan basin per our agreement. Probes were installed at:

- 09355500 - San Juan River near Archuleta, NM - Real time on web
 - 09365000 - San Juan River at Farmington, NM - Real time on web
 - 09364500 - Animas River at Farmington, NM - Stand alone temperature probe until we can get access to install a wired probe.
 - 09381010 - San Juan River at Four Corners, CO - Real time on web
- Data will be displayed real time via the USGS NWISweb.

The probes are maintained by USGS with the following contact:

Jay Cederberg
Albuquerque Field Office Chief
USGS, New Mexico Water Science Center
5338 Montgomery Blvd., NE, Suite 400
Albuquerque, NM 87109
505.830.7924 | fax: 505.830.7986
cederber@usgs.gov

web: <http://nm.water.usgs.gov>

TASKS – 2019

1. Operate and maintain water temperature probes at four different locations in the San Juan River Basin

FY 2019 BUDGET

| Task | Expenditure in FY2019 |
|--------------------------------|-----------------------|
| | |
| Temperature probes @ \$5500/ea | \$22,000 |
| Total | \$22,000 |

¹ This total budget represents a 0% increase over the FY2018 Budget.

Projected funding:

FY-2020 \$23,000.00

FY-2021 \$24,500.00

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| Crockett | <p><i>How can the technical aspects of this SOW be improved?</i> It is unclear what the Program’s involvement in this SOW actually is; the work described in the Methods and Tasks sections is all by USGS. I believe this is just a partial cost-share with USGS to help operate and maintain these gauges, in which case one additional sentence could make that clear.</p> <p><i>Response: The Programs involvement in this SOW is to pay for the temperature gauges. It is required that we monitor water temperatures and we pay USGS to do this for us.</i></p> <p><i>What is this SOW’s contribution to recovery?</i> Document temperature regime, to potentially correlate with aspects of rare fish recovery.</p> |
| Davis | <p><i>How can the technical aspects of this SOW be improved?</i> No comments.</p> <p><i>What is this SOW’s contribution to recovery?</i> No comments.</p> |
| Gori | <p><i>How can the technical aspects of this SOW be improved?</i></p> <p><i>What is this SOW’s contribution to recovery?</i></p> |
| Lamarra | <p><i>How can the technical aspects of this SOW be improved?</i> No comment</p> <p><i>What is this SOW’s contribution to recovery?</i> No comment</p> |
| Mazzone | <p><i>How can the technical aspects of this SOW be improved?</i> No Comment.</p> <p><i>What is this SOW’s contribution to recovery?</i> Real time temperature monitoring provides data to directly incorporate into analysis/modeling efforts of the Principal Investigators, increasing our understanding of abiotic conditions and how those conditions may or may not be conducive to recovery. In light of the new flow release “protocols” temperature data is of great interest for future water management decisions.</p> |
| McKinstry | <p><i>How can the technical aspects of this SOW be improved?</i> They are fine as is.</p> <p><i>What is this SOW’s contribution to recovery?</i> Not vital, but temps need to be monitored.</p> |
| Miller | <p><i>How can the technical aspects of this SOW be improved?</i> No comments</p> <p><i>What is this SOW’s contribution to recovery?</i></p> |
| Schleicher | <p><i>How can the technical aspects of this SOW be improved?</i> No comment</p> <p><i>What is this SOW’s contribution to recovery?</i> No comment</p> |
| Townsend | <p><i>How can the technical aspects of this SOW be improved?</i> No Comment</p> |

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|----------|--|
| | <p><i>What is this SOW's contribution to recovery?</i> No Comment</p> |
| Wesche | <p><i>How can the technical aspects of this SOW be improved?</i> Scope is adequate.</p> <p><i>What is this SOW's contribution to recovery?</i> This work indirectly supports recovery by providing important information key to our recovery efforts.</p> |
| Westfall | <p><i>How can the technical aspects of this SOW be improved?</i> Looks good – I support</p> <p><i>What is this SOW's contribution to recovery?</i></p> |
| Zeigler | <p><i>How can the technical aspects of this SOW be improved?</i> No comment. There are no technical aspects for this SOW.</p> <p><i>What is this SOW's contribution to recovery?</i> Continued collection of temperature data will be vital in assessing the effects of temperature on survival and recruitment of Colorado Pikeminnow and Razorback Sucker in the San Juan River. This data will be beneficial in developing management activities which will aid in recovery of both endangered species.</p> |
| PO | <p><i>How can the technical aspects of this SOW be improved?</i> No comment.</p> <p><i>What is this SOW's contribution to recovery?</i> No comment.</p> |