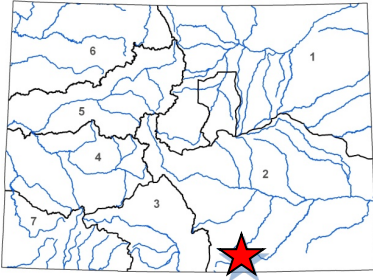




## Purgatoire River Integrated Watershed Management Planning Phase 2 Purgatoire Watershed Partnership

January 2022 Board Meeting

### Colorado Watershed Restoration Program Application

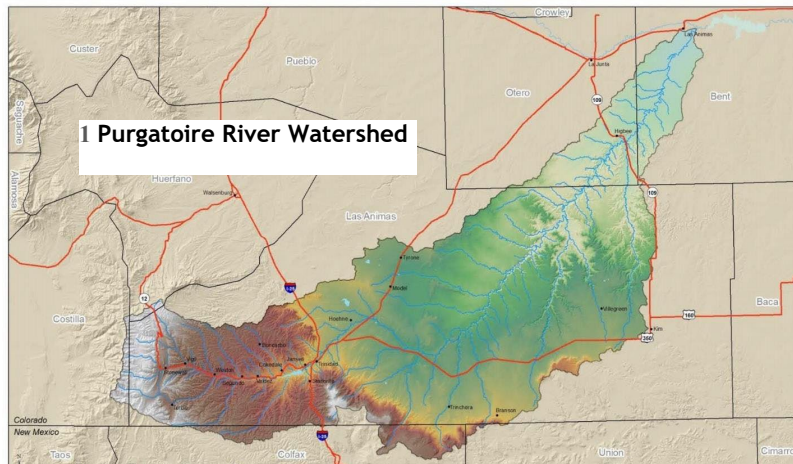


L O C A T I O N	
County/ Counties:	Las Animas, Otero, Bent
Drainage Basin:	Arkansas

D E T A I L S	
Total Project Cost:	\$308,184
Colorado Watershed Restoration Program Request:	\$152,000
<b>Recommended amount:</b>	\$152,000
Other CWCB Funding (Water Plan Grant):	\$5,500
Other Funding Amount:	\$125,684
Applicant Match:	\$25,000
Project Type(s): Planning	
Project Category(Categories): Stream Management Plan	
Measurable Result: Final SMP, 8 Assessments - e.g. Ecological and Water Quality Health Assessments,	

Together with local partners, the Purgatoire Watershed Partnership is currently wrapping up a Phase 1 'Pre-SMP' effort, which conducted a preliminary outreach and engagement effort to stakeholders in the Upper, Middle, and Lower Purgatoire to learn more about their needs and priorities (through stakeholder engagement as well as conducting important assessment work) and determine their interest in moving forward with a larger SMP effort.

Phase 2 of the SMP has evolved into an Integrated Water Management Planning (IWMP) effort. Phase 2 effort includes (a) conducting additional important assessments (determined to be critical gaps in Phase 1), (b) moving forward with Working Group efforts to advance critical conversations and utilize gathered information towards realistic project development, (c) implementing next steps for



stakeholder outreach, education, and engagement with new and existing stakeholders to advance mutual understanding, share new ideas and technology, and capture and prioritize the needs and priorities of new stakeholders previously not engaged (the small rural watershed is currently experiencing a huge influx of new residents migrating from big cities bringing with them new viewpoints and ideas), and (d) development of a Purgatoire River

Integrated Water Management Plan. Specifically, the new assessments to be conducted include a Snow Data Assessment, a Sediment Assessment, a Native Fish Assessment, a River Flow Gage & Climate Data Station Assessment, a Part 2 Irrigation Infrastructure Assessment, a Part 2 Jetty Jack Assessment, a Part 2 Ecological Health Assessment, and a Part 2 Water Quality Assessment.

The Phase 2 effort will deliver a final Purgatoire River Integrated Water Management Plan, complete with realistic on-the-ground collaborative projects prioritized for implementation.

**COLORADO WATERSHED RESTORATION PROGRAM**  
**GRANT APPLICATION**  
**September 2021**

The information below is a brief summary of what must be included in an application for funding from the Colorado Watershed Restoration Program. Proposals shall address all sections listed below. **Please refer to the Colorado Watershed Restoration Program Guidance document for complete descriptions and requirements for the grant application.** Proposals shall be no longer than 5 pages (*minimum 11 point font and 1 inch margins*), not including the summary sheet and attachments (e.g. scope of work).

**SUBMITTAL INFORMATION**

**Completed applications are due by 5:00 pm on November 4, 2021. Applications submitted after 5:00 pm will not be accepted.**

**All applications should be submitted electronically via email to [chris.sturm@state.co.us](mailto:chris.sturm@state.co.us)**  
**Electronic applications on a thumb/flash drive may also be**  
**mailed to: Colorado Water Conservation Board, ATTN:**  
**Chris Sturm**  
**1313 Sherman St., Room 721**  
**Denver, CO 80203**

Logistical questions about submitting applications should be directed to Chris Sturm ([chris.sturm@state.co.us](mailto:chris.sturm@state.co.us)).

**THE ENTIRE APPLICATION MUST BE SUBMITTED AS ONE FILE (including attachments), e.g. word .doc or .pdf.** Files larger than 20mb cannot be received via email. Larger files should be mailed to the address above.

**Please read the application guidance document for information regarding grant types, basic applicant qualifications, and descriptions of evaluation criteria.**

## **PROJECT PROPOSAL SUMMARY SHEET**

**Project Title:** Purgatoire River Integrated Water Management Planning Phase 2

**Project Location:** Our project location is the Purgatoire River in southeast Colorado (see MAPS in attachments). We are a relatively small river but an important tributary of the larger Arkansas River Basin. Because of our smaller size, because most of our engaged stakeholders live in (for example) the upper watershed but work and play in the middle or lower watershed and vice versa, and because much of our watershed is rural with very low population density (e.g. a single rancher may own multiple miles of the river and the next neighbor is miles away), we have taken a broader approach to Stream Management Planning. We split our 196-mile long river into three sections – Upper Purgatoire (headwaters to Trinidad Dam), Middle Purgatoire (Trinidad Dam to eastern edge of Trinidad), and Lower Purgatoire (eastern edge of Trinidad to the confluence with the Arkansas River). Within these sections, different stakeholder needs, priorities and collaborative opportunities have evolved that we are excited to pursue in Phase 2.

**Grant Type:** Stream Management Plan Grant, Colorado Watershed Restoration Program

**Grant Request/Amount:** \$152,000

**Cash Match Funding:** \$76,000

**In-kind Match Funding:** \$80,184

**Project Sponsor:** Purgatoire Watershed Partnership

**Contact person:** Julie Knudson, jknudson@purgatoirepartners.org, 970-420-1915

**Brief description of the project:** Together with local partners, the Purgatoire Watershed Partnership is currently wrapping up a Phase 1 ‘Pre-SMP’ effort, where we conducted a preliminary outreach and engagement effort to stakeholders in the Upper, Middle, and Lower Purgatoire to learn more about their needs and priorities (through stakeholder engagement as well as conducting important assessment work) and determine their interest in moving forward with a larger SMP effort. This Phase 1 effort was incredibly important for us to better understand our stakeholders and what worked and didn’t work as far as outreach/engagement, and really helped us dial into and prioritize an important set of critical needs and priorities for our watershed that are well supported by stakeholders – including our key stakeholder ‘champions’, without which our Stream Management Planning work would not be possible. As such, we are now excited to move onto Phase 2 of our (what is now an) Integrated Water Management Planning effort. The overview of our Phase 2 effort includes (a) conducting additional important assessments (determined to be critical gaps in Phase 1), (b) moving forward with Working Group efforts to advance critical conversations and utilize gathered information towards realistic project development, (c) implementing next steps for stakeholder outreach, education, and engagement with new and existing stakeholders to advance mutual understanding, share new ideas and technology, and capture and prioritize the needs and priorities of new stakeholders previously not engaged (our small rural watershed is currently experiencing a huge influx of new residents migrating from big cities bringing with them new viewpoints and ideas), and (d) development of a Purgatoire River Integrated Water Management Plan. Specifically, the new assessments to be conducted include a Snow Data Assessment, a Sediment Assessment, a Native Fish Assessment, a River Flow Gage & Climate Data Station Assessment, a Part 2 Irrigation Infrastructure Assessment, a Part 2 Jetty Jack Assessment, a Part 2 Ecological Health Assessment, and a Part 2 Water Quality Assessment

**Colorado Watershed Restoration Program**

**PROJECT PROPOSAL** *(No longer than 5 pages [minimum 11-point font and 1-inch margins])*

**Qualifications Evaluation (Maximum of 20 points)**

**Identify the lead project sponsor and describe the other stakeholders' level of participation and involvement. 10 points**

The lead project sponsor is the Purgatoire Watershed Partnership (PWP), a non-profit 501(c)(3) based in the Purgatoire River watershed in Trinidad, Colorado. PWP will serve as the primary lead on all aspects of the proposed project. The key project partner we will be working with most closely on multiple project components is the Purgatoire River Water Conservancy District (PRWCD). Other important project partners we will be working heavily with include local agricultural producers/irrigators (representing agriculture), Trout Unlimited Local Chapter/Purgatoire River Anglers (fish and recreation), the Purgatoire River Run Company (in-stream boating/recreation), the City of Trinidad (municipal, recreation, watershed management), and Evergreen Natural Resources (industrial). Three of our most engaged/committed agricultural producers in this effort include Jim Vigil of the Upper Purgatoire (retired CPW), Frank Milinazzo of the Middle Purgatoire (farmer, rancher, ditch rider), and Steve Wooten of the Lower Purgatoire (4<sup>th</sup> generation rancher, Colorado Cattleman's Association). As far as overall stakeholder engagement, we found through our Phase 1 efforts that stakeholders in the Middle Purgatoire were much easier to engage and much more interested in participating in this effort; as such that is where we currently have the highest level of stakeholder engagement. That being said, we also have a small but important number of strongly engaged stakeholders in the Upper (including agricultural producers, City of Trinidad, CSFS, USFS) and Lower Purgatoire River (agricultural producers), and we hope to engage a significant number of new stakeholders through our Phase 2 efforts. Our PWP Board Members are also heavily engaged and represent the City of Trinidad, Colorado Parks and Wildlife, Trout Unlimited Local Chapter, County Commissioner, Stonewall Fire Protection District, an irrigator/agricultural producer, and a Board Member representing several local philanthropic organizations conducting conservation work around water including Culebra Range Community Coalition, Purgatoire Valley Foundation, and the Bar NI Ranch Community Service Fund. Other important partners we will be working with/coordinating with on this project include Arkansas River Watershed Collaborative (ARWC), Las Animas County, Huerfano County, US Army Corps of Engineers, US Bureau of Reclamation, Colorado Parks & Wildlife, The Nature Conservancy, Natural Resources Conservation Service, Division of Water Resources-DNR District Water Commissioner, the Spanish Peaks-Purgatoire River Conservation District (SPPRCD), Purgatoire Watershed Weed Management Collaborative (PWWMC), Bird Conservancy of the Rockies, Arkansas Basin Roundtable (ABRT), ABRT Public Education Participation & Outreach Group (PEPO), and all other local stakeholders representing a diverse variety of water user interests.

**Specify in-kind services and cash contributions (match) amount for the proposed activities. See section B.2 of the grant program guidance to determine match funding requirements. Discuss whether other funding sources are secured or pending. 10 points**

Overall, we are providing a total of \$76,000 cash contributions and \$80,184.40 in-kind services towards this project. Specifically, cash match is being provided through PWP in direct cash match of \$25,000, as well as cash match of \$5,500 of CWCB Water Plan Grant funds, \$5,500 of USBOR Cooperative Watershed Management Program Phase II Grant Funds, and \$40,000 in CDPHE 2022 NPS Grant funds (Pending). In-kind match sources include: (1) PWP committing \$18,265.60 of PWP Board Member time from 8 Board Members, (2) PRWCD committing \$24,000 of General Manager time, (3) ARWC committing \$3,100 of time, (4) Trout Unlimited Local Chapter contributing \$2,283 of time, (5) Purgatoire River Run Company contributing \$2,283 of time, (6) Agricultural producer Frank Milinazzo contributing \$2,283 of time, (7) Agricultural producer Jim Vigil contributing \$2,283 of time, and (8) All other engaged stakeholder time contributing \$25,686.00 of time. All funding sources are secured, except for the pending CDPHE grant.

### **Organizational Capability (Maximum of 30 points)**

**What is the applicant organization's history of accomplishments in the watershed? Provide several past project or planning examples. List partner organizations and agencies with whom applicant worked to implement past projects or planning efforts. 10 points**

The Purgatoire Watershed Partnership (PWP) continues to work with many local and regional partners and entities on behalf of improving the health and function of the Purgatoire River watershed and supporting stakeholder communication, collaboration and education. Several past and recent project and planning examples include (1) our recent Phase 1 'pre-SMP' effort, where we worked with a host of partners across the watershed as well as engaging many new stakeholders around river flows, collaboration, and planning with diverse water users, (2) working with local agricultural, municipal, environmental, and recreational partners (including PRWCD, local irrigators, Trout Unlimited, Purgatoire River Run Company, City of Trinidad, and others) to develop and secure funding through CWCB for an important \$1.4 million collaborative on-the-ground project called the Baca-Picketwire Diversion Dam Restoration Complex project including fish passage, boater passage, woody invasive species work, fish habitat work, and important agricultural infrastructure improvements (an important project outcome of our Phase 1 work that stakeholders were ready to move forward with), (3) partnering with Trout Unlimited and Coalitions and Collaboratives to implement river habitat assessment work towards improving riparian habitat and the fishery along the river in the urban reach, (4) partnering with the City of Trinidad and Stonewall Fire Protection District on a Colorado State Forest Service grant in support of accomplishing fire mitigation work in the watershed, (5) partnering with the City of Trinidad and many of the partners listed below to plan and successfully implement a \$286,000 GOCO grant towards conducting restoration and recreation enhancement along and near the Purgatoire River as well as to support the development of the Purgatoire Watershed Outdoor Stewardship Program, (6) partnering with Trout Unlimited, Bird Conservancy of the Rockies, and Trinidad Youth Club to plan and successfully secure a grant from the Bar NI Ranch Community Foundation towards youth education and working to enhance the local fishery, native vegetation, and avian habitat, and (7) partnering with SPPRCD and PWWMC to accomplish significant woody invasive species management work conducted along the Middle Purgatoire River.

Other project partners we often work with/coordinate with include CSFS, USFS, Colorado Parks and Wildlife, Las Animas County, Stonewall Fire Protection District, ARWC, Huerfano County, US Army Corps of Engineers, US Bureau of Reclamation, The Nature Conservancy, Natural Resources Conservation Service, Division of Water Resources-DNR District Water Commissioner, the Arkansas Basin Roundtable Public Education Participation & Outreach Group (ABRT PEPO), Colorado State University Extension, Volunteers for Outdoor Colorado, Mile High Youth Corps, Trinidad Outdoor Club, Trinidad Trails, Coalitions & Collaboratives, Trinidad State Junior College, Bar NI Ranch, and the Trinidad Community Foundation.

**What level of staffing will be directed toward the implementation of the proposed project/planning effort? Discuss the number of staff and amount of time dedicated for the project. Will volunteers be utilized, and if so, how? Include brief resumes for each member of the active project team. 10 pts**

The project lead is Dr. Julie Knudson of the Purgatoire Watershed Partnership (PWP). PWP will be working most closely in conjunction with Steve Kastner of the Purgatoire River Water Conservancy District on this project. Julie Knudson will be contributing a minimum of 950 hours to this project over three years, while Steve Kastner estimates contributing a minimum of 240 hours. In particular, PWP Board Members will be contributing a minimum of 640 hours to this project, and PRWCD Board Members will be providing guidance for Steve Kastner. All other engaged stakeholders will be donating their time, and will include a mix of donated paid staff time by participating agencies and organizations as well as a host of unpaid volunteer time donated by all other engaged stakeholders

including engaged farmers and ranchers and other private citizens. In addition to the above partners, we have indicated committed donated time from several other stakeholders including Trout Unlimited, ARWC, Purgatoire River Run Company, agricultural producer Frank Milinazzo, and agricultural producer Jim Vigil. Agricultural producer Steve Wooten will also be advising on this project.

Dr. Julie Knudson is the Watershed Coordinator for the PWP, a non-profit 501(c)(3) focused on conservation and stakeholder engagement and education around all topics relevant to watershed health and enhancement. She has a PhD in Restoration Ecology from Colorado State University, a Masters in Resource Conservation from University of Montana Missoula, and a BA in Biology & Political Science from University of Colorado Boulder. She has worked as a soil scientist, hydrologist, botanist, noxious weed manager, and restoration ecologist throughout Colorado and the western US. Julie has significant experience in both the world of academia and scientific research as well as working as a land manager conducting on-the-ground restoration work. She has extensive experience engaging and providing education to stakeholders, as well as translating science to land managers and other on-the-ground practitioners and laypersons. She also has significant experience with project planning, implementing logistics, and coordinating a wide variety of partners and stakeholders for projects around similar topics as those here.

Steve Kastner is an engineer and the General Manager for the Purgatoire River Water Conservancy District. He is also a member of the Arkansas Basin Roundtable. He works closely with a host of local irrigators, USACE, USBOR, DWR-DNR, and the City of Trinidad Watershed Manager for water planning and management across the Purgatoire River Water Conservancy District area.

**Demonstrate that the project budget and schedule are realistic. Please use the budget/timeline spreadsheet attached to the application. Please note that the start date will take place after funding awards are announced and grants are contracted. 10 points**

The primary project partners worked together to develop the project budget and schedule to ensure that it was realistic. Specifically, the two primary partners carefully assessed their own availability of staff time over the project timeline and determined a realistic number of hours that could be devoted towards this effort, had conversations with the other stakeholders and experts donating staff time to this project in the budget to determine a realistic number of hours they felt they could dedicate to the project, and discussed with our consultants Ecometrics (will be working with us on Part 2 of the Ecological Health Assessment as well as conducting a portion of the sediment assessment work) and Policky Aquatics to determine reasonable cost estimates. We feel that we have determined a fair cost estimate for project components. The two primary partners worked with other key partners to determine a timeline that felt realistic based on other partner commitments. We may be able to complete our project sooner, but we have found that agricultural producers in particular are incredibly busy all year round with their work, and thus we wanted to make sure that we built in enough time to ensure a high level of agricultural producer engagement. We feel that a three-year timeline is completely reasonable for completing our project successfully (see BUDGET/TIMELINE section).

**Proposal Effectiveness (50 points)**

**What information is the project sponsor using to develop the proposed plan or project? Include any relevant information regarding existing watershed plans, stream management plans, geomorphic assessments, flood studies, fire protection plans, riparian conditions assessments, aquatic/terrestrial habitat conditions, wildlife studies, and/or river restoration reports. 10 points**

In short, we will be relying heavily on our outcomes of our Phase 1 Stream Management Planning efforts. In addition, a recent 2022 Purgatoire River Assessment Report was completed that we will also be heavily

utilizing for our work in the Middle Purgatoire.

We also have a variety of additional resources that have been developed that were utilized to inform the development of this project and will also be utilized during the project for information gathering purposes. In 2014 the Purgatoire River Watershed Plan was developed that provides a summary of historical efforts conducted towards watershed health in the basin, identifies nine issues of concern at the watershed level identified by engaged stakeholders, and provides a summary of potential projects that could be implemented towards addressing these concerns. This watershed plan will be a critical resource for information for the project as well as help inform priorities and needs identification. The Stonewall Fire Protection District Community Wildfire Protection Plan was also developed in 2014, which provides valuable information for this project around concerns associated with catastrophic fire (and the resulting potential catastrophic flooding). In 2011, an assessment of existing habitat conditions and a feasibility study for a cold-water fish habitat improvement project was conducted (by Fin-Up Habitat Consultants, Inc.) on a segment of the Purgatoire River within the City of Trinidad (within the proposed project urban reach). This original assessment is still useful on its own as well as being utilized for the Purgatoire River Assessment effort mentioned above. Invasive-species specific resources that may be useful in our efforts include the 2008 Woody Invasives Management Plan, the Las Animas County Weed Plan, and the following two resource guides (1) Tamarisk - Best Management Practices in Colorado Watersheds by Scott Nissen, and (2) Best Management Practices for Revegetation after Tamarisk Removal by Anna Sher. We will also be utilizing the Arkansas Basin Roundtable Basin Implementation Plan to guide our efforts. Additional available resources potentially useful for this effort include: (1) the Water Quality Monitoring Priorities: Purgatoire River from Trinidad Reservoir to the confluence with Van Bremer Arroyo and Purgatoire River from Nine Mile Dam to the confluence with the Arkansas River Report, (2) the 2014 Water Quality Assessment Analysis Project Report which compiled surface water quality data in the Purgatoire Watershed and assessed the data relative to priority water quality standards focusing on the 303(d) list of impaired waters, Monitoring & Evaluation Lists, and existing reports, (3) the 2004 Source Water Assessment Report conducted in Las Animas County, (4) 2012 City of Trinidad Water Conservation Plan, and (5) the City of Trinidad Trail and Greenway Master Plan. It is also estimated that there will be other critical information resources associated with the two selected reaches that will come to light through the stakeholder outreach and engagement effort.

**Discuss the multiple objective aspects of the project and how they relate to each other. Describe similar activities in the watershed and how this project or plan complements but does not duplicate those activities. Multiple objectives may include (but are not limited to) channel stabilization, riparian re-vegetation, habitat improvement, recreation opportunity enhancement, natural hazard reduction, flood mitigation, water supply delivery improvement, fish migration improvement, ephemeral/intermittent channel stabilization, and upland erosion mitigation. 30 points**

Our project objectives are directly aligned with our project tasks and include: (a) implement each of our 5 project tasks successfully, (b) deliver a final Purgatoire River Integrated Water Management Plan, complete with realistic on-the-ground collaborative projects that we can move forward with, and (c) successfully increase stakeholder education, communication and collaboration in our watershed.

On-the-ground components/objectives of priority voiced by local stakeholders for overall watershed health and stakeholder benefit include all of the following: channel stabilization, riparian re-vegetation, habitat improvement, recreation opportunity enhancement, natural hazard reduction, flood mitigation, water supply delivery improvement, fish migration improvement, ephemeral/intermittent channel stabilization, and upland erosion mitigation. A good example of many of these relating/tying into each other all in one location on our river is a prioritized project that was developed in our Phase 1 effort in the Middle Purgatoire – the Baca-Picketwire Diversion Dam Restoration Complex project. In that project area, we have woody invasive species we will be removing and replacing (mostly Russian olive) with native riparian vegetation to improve riparian habitat as well as reduce a natural hazard (Russian olive thorns are a significant natural hazard to instream recreators on our river), and we have bank erosion

issues that we will be addressing through installing in-stream fish habitat structures (J-hooks and cross vanes) that are multi-purpose to improve fish habitat while also significantly reducing bank erosion and enhancing in-stream recreation opportunity. We will also be improving water supply delivery through irrigation infrastructure enhancements, installing a protective concrete erosion/flood protection wall to better protect critical irrigation infrastructure during flood events, installing fish passage to improve fish migration, and installing boater passage to enhance recreational opportunity and safety. Regarding other similar efforts happening in the watershed: We work closely with the other entities and organizations in our watershed to mutually support each other when similar efforts are occurring so that time and money is not wasted. Most of our watershed is located within Las Animas County – one of the lowest income/highest poverty level counties in the state. Frankly, we cannot afford to duplicate efforts in our watershed, and thus for the most part we all try very hard to work together and mutually support each other with the limited time and resources that we have. One example of related efforts in our watershed is the work that PRWCD is doing to improve water supply delivery for its irrigators; as we work closely with PRWCD we guarantee that our efforts are 100% mutually supportive and not duplicative. Another example is our Phase 2 Flood Risk Assessment Working Group. In the working group we will be reviewing and discussing related efforts in the watershed (a 2020 Purgatoire River Assessment Effort that included a significant hydraulic modeling and flood assessment effort for the Middle Purgatoire; a Las Animas County Flood Risk (FEMA) Study that is currently in progress [of which PWP and multiple mutual partners are involved in]; and stakeholder interest in learning more about FHZ mapping) to determine what gaps and opportunities might be identified and prioritized for a future project.

**Describe the proposed monitoring or implementation plan. How will the project or plan measure success of its objectives? 10 points**

Our implementation plan to accomplish project objectives includes five tasks: Task 1 – Overall Project Coordination & Implementation - includes implementation of all project oversight including logistics and communication with all project partners, and expense tracking and reporting; Task 2 – Project Assessments (Consultants & Contractors) – includes all hiring, coordination, and assessment implementation and partner communication and working with stakeholders to share findings; Task 3 – Working Group Formation, Discussion & Project Development – includes all coordination and implementation, Task 4 – Next Steps for Stakeholder Outreach, Education & Engagement, and Task 5 – Final Plan Development. Our project objectives include (a) Implement each of our 5 project tasks successfully, (b) Deliver a final Purgatoire River Integrated Water Management Plan, complete with realistic on-the-ground collaborative projects that we can move forward with, and (c) Successfully increase stakeholder education, communication and collaboration in our watershed. Overall, we will measure our success by ensuring that we have successfully completed all project deliverables in a timely manner and ensuring that we are conducting all other activities associated with grant administration and reporting to the satisfaction of CWCB. Specifically, we will measure the success of our objectives through (a) Keeping a pulse on stakeholder comfort level - continuing to check in with engaged stakeholders to ensure that we are addressing their concerns and that if they have concerns they are addressed to the best of our ability, (b) Checking in with experts (if they aren't already involved in project development) to ensure that prioritized projects being developed are realistic and will be effective and have a clear and concrete benefit for water users and river/watershed health, (c) Developing an Integrated Water Management Plan that is fully supported by stakeholders, (d) Observing diverse stakeholder communication and collaboration over time to see how it evolves through our outreach and education efforts, and (e) Tracking number of engaged stakeholders at all meetings and events and tracking visits to the new Purgatoire River Flows webpage. Our stakeholders do not seem to like surveys so it is trickier to track progress through that method, but we will do our best to develop other quantitative concrete methods of tracking project success (and are open to suggestions).

## **Scope of Work**

**GRANTEE and FISCAL AGENT (if different): Purgatoire Watershed Partnership**

**PRIMARY CONTACT: Julie Knudson**

**ADDRESS : 3590 E. Main St, Trinidad, CO 81082**

**PHONE 970-420-1915**

**PROJECT NAME: Purgatoire River Integrated Water Management Planning Phase 2**

**GRANT AMOUNT: \$152,000**

### **INTRODUCTION AND BACKGROUND**

Together with local partners, the Purgatoire Watershed Partnership is currently wrapping up a Phase 1 'Pre-SMP' effort, where we conducted a preliminary outreach and engagement effort to stakeholders in the Upper, Middle, and Lower Purgatoire to learn more about their needs and priorities (through stakeholder engagement as well as conducting important assessment work) and determine their interest in moving forward with a larger SMP effort. This Phase 1 effort was incredibly important for us to better understand our stakeholders and what worked and didn't work as far as outreach/engagement, and really helped us dial into and prioritize an important set of critical needs and priorities for our watershed that are well supported by stakeholders – including our key stakeholder 'champions', without which our Stream Management Planning work would not be possible. As such, we are now excited to move onto Phase 2 of our (what is now an) Integrated Water Management Planning effort. The overview of our Phase 2 effort includes (a) conducting additional important assessments (determined to be critical gaps in Phase 1), (b) moving forward with Working Group efforts to advance critical conversations and utilize gathered information towards realistic project development, (c) implementing next steps for stakeholder outreach, education, and engagement with new and existing stakeholders to advance mutual understanding, share new ideas and technology, and capture and prioritize the needs and priorities of new stakeholders previously not engaged (our small rural watershed is currently experiencing a huge influx of new residents migrating from big cities bringing with them new viewpoints and ideas), and (d) development of a Purgatoire River Integrated Water Management Plan. Specifically, the new assessments to be conducted include a Snow Data Assessment, a Sediment Assessment, a Native Fish Assessment, a River Flow Gage & Climate Data Station Assessment, a Part 2 Irrigation Infrastructure Assessment, a Part 2 Jetty Jack Assessment, a Part 2 Ecological Health Assessment, and a Part 2 Water Quality Assessment.

### **OBJECTIVES**

- Implement each of our 5 project tasks successfully
- Deliver a final Purgatoire River Integrated Water Management Plan, complete with realistic on-the-ground collaborative projects that we can move forward with
- Successfully increase stakeholder education, communication and collaboration in our watershed.

### **TASKS**

Provide a detailed description of each task using the following format. Detailed descriptions are only required for CWCB funded tasks. Other tasks should be identified but do not require details beyond a brief description.

## **TASK 1 – Overall Project Coordination & Implementation**

### Description of Task

Overall project coordination and implementation, which will be conducted by the project lead, Julie Knudson.

### Method/Procedure

This will be accomplished through close working relationships with all project partners, and utilizing our project timeline to ensure that our project stays on track.

### Deliverable

A successful and well implemented project.

## **TASK 2 – Project Assessments (Consultants & Contractors)**

### Description of Task

We will be conducting a prioritized set of assessments as determined through previous outreach and engagement with stakeholders in Phase 1.

### Method/Procedure

We will be conducting these assessments through volunteer stakeholder labor as well as hired contractors. We have already coordinated with Ecometrics to assist us with further Ecological Health Assessment Part 2 work and a portion of the Sediment Assessment work; and Policky Aquatics to assist us with our fish assessment work. Assessments that will be conducted include:

#### 2A - Ecological Health Assessment Part 2

This will continue our Ecological Health Assessment work in Phase 1, including outreach and engagement with our Purgatoire River Report Card that is in the final stages of development, and working with stakeholders to share with them the findings of the Ecological Health Assessment effort in Phase 1 and develop a list of prioritized projects.

#### 2B - Water Quality Assessment Part 2

This effort will be closely tied to the relevant working group below.

#### *Purgatoire River Water Quality Database – Education, Outreach, & Project Development*

One of our consultants/partners on our Phase 1 Stream Management Planning effort developed a comprehensive Purgatoire River Water Quality Database for us that pulled together an extensive amount of water quality and quantity data for the Purgatoire River from a vast amount of resources. This database was developed as part of our overarching Ecological Health Assessment we conducted in our watershed. The consultant who developed this database was well-experienced in water quality issues; we feel very lucky that we were able to work with them on this effort, and are most grateful to now have such a powerful and useful resource for next steps around water quality in our watershed.

Unfortunately, the watershed coordinator (myself) as well as most of our stakeholders have little to no background in water quality issues and we are all learning together. For our next steps with this large database, we would like to hire a part-time water quality consultant who can help guide us in a ‘deep-dive’ into the database and (a) help us identify all current issues of concern that need to be addressed or protected (including determining ‘where we are now’ with those water quality issues previously identified as concerns in our 2014 Watershed Plan), (b) work closely with us to educate our stakeholders on these issues of concern, and (c) work closely with us and our stakeholders to help develop an updated list of priority water quality projects that we could realistically accomplish and make significant headway in improving or protecting river/community health.

#### *Listening to Stakeholder Voices – Assessing Current Concerns, Determining Next Steps*

Again, through our Phase 1 Stream Management Planning effort we learned through outreach and engagement that many of our stakeholders are concerned about water quality in the watershed. While not a comprehensive list, stakeholder concerns ranged from wondering how best to protect ourselves from potential impacts on our critical drinking water sources (North Lake, Monument Lake) of catastrophic flooding if we were to be significantly impacted by fire in the upper watershed; wanting to know more about sediment sources and potential solutions in our upper watershed as Trinidad Reservoir continues to take on a fair amount of sediment; wanting to know what water quality issues need to be addressed to help support a viable trout fishery in the middle watershed; wanting to better understand

opportunities and solutions for addressing perceived water quality issues with stormwater runoff from across our local community in Trinidad that all dumps into the Purgatoire River; wondering what the actual water quality impacts are on our river from the illegal (homeless) camping that continues to occur through our middle watershed resulting in a fair amount of trash and fecal material accumulating alongside the river and washing into the river; and wanting to know if historic mining operations that are no longer operational are having a negative impact on river water quality today (and what the impacts might be should catastrophic flooding occur).

Utilizing the findings from our database assessment above, as well as reaching out to other experts in our state/region, we will work with stakeholders to systematically address their list of concerns and determine (a) if there is indeed a warranted concern, (b) if so, is more research/monitoring data needed before implementing a solution, or (c) is the concern clear enough and well documented enough to move forward directly with project development if there is enough stakeholder support.

#### *Purgatoire Watershed Water Quality Monitoring Program – Improvement & Expansion*

In our watershed we historically established a small-scale River Watch program. Over time, some of our previously established River Watch stations have seen data collection wax and wane or completely drop off. We have also recently discovered that other organizations and entities have conducted (typically very short-term) monitoring efforts in the basin, but in locations where it might be useful to develop an official River Watch site to implement further monitoring. We also expect that the outcome of some of the efforts above will be that new/more comprehensive (or more targeted) water quality monitoring will be needed in specific locations in support of key project development and/or tracking of project progress.

Once we have determined our new or ongoing water quality monitoring needs tied to the efforts above, we will determine the most appropriate path forward for our current River Watch stations and the potential for establishing several new stations.

#### 2C - Snow Data Assessment

In our watershed we have an incredibly limited (really only one useful snow station) for water planning for the coming year. Developing a plan to secure a more comprehensive and useful snow data set for annual planning is critical. In particular, we are excited to learn more about the ASO project, and other opportunities for satellite and/or flyover data collection that could help better inform our water and river flow planning.

#### 2D - Sediment Assessment

Trinidad Reservoir continues to fill with sediment and whenever we have significant rain events a significant amount of sediment moves down our tributaries and the Purgatoire mainstem. Stakeholders have prioritized that we need to better understand the significant sources of sediment in our basin, and explore opportunities for addressing them. We will be hiring contractors as well as relying on volunteer labor to help us implement with Sediment Assessment.

#### 2E - Native Fish Assessment

Tied into our Phase 1 efforts, a fish assessment was conducted in the Middle Purgatoire. However, in order to develop a comprehensive strategy for native fish on our river, we need to better understand the current status and challenges for our native fish in the Upper Purgatoire and Lower Purgatoire. In particular on the Lower Purgatoire, famed river ecologist and fish biologist Kurt Fausch conducted an assessment of our rare and more common native plains fishes on the Purgatoire between 1983 to 2007.

We are interested to determine how these populations have changed since then and what we need to be doing to better support and conserve this incredibly precious population of native fishes.

#### 2F - Irrigation Infrastructure Assessment Part 2 (continuing work from Phase 1)

#### 2G - River Flow Gage & Climate Data Station Assessment

A fair number of river flow gages on our river are in need of repair. Additionally, we have large gaps in data (by distance) on certain critical stretches of the river where, when a significant rain event occurs, critical data is missing for irrigators and other water managers that could help them act more quickly. In addition, we have very few climate data stations in our watershed; exploring opportunities to improve precipitation data collection (particularly rain data) are critical for meeting PRWCD and USBOR water planning and management goals.

#### 2H – Historical Flood Control Infrastructure (Jetty Jacks) Phase 2 Assessment

A continuation of our Phase 1 jetty jacks assessment, moving on with next steps in partnership with USACE to determine mitigation requirements with removal and work with stakeholders to prioritize projects that will best serve in-stream environmental and recreational goals.

#### Deliverable

Each assessment will result in a summary report and associated data collection, as well as include the development of next steps recommendations and project development through the working groups below. Assessment results will also be included in the final plan.

### **TASK 3 – Working Group Formation, Discussion & Project Development**

#### Description of Task

This task focuses on developing formal working groups based on already determined stakeholder needs and priorities, implementing discussions through these working groups, and developing realistic projects that we could implement for next steps.

#### Method/Procedure

While it may seem like a fair number of working groups, we determined with stakeholders that the only way that we could have efficient and productive conversations *with the limited amount of time that all stakeholders and partners have* were to develop these specialized working groups where all participants/attendees would be able to immediately dial in to the topic of issue and accomplish the most work in the least amount of time, including project development. It is important to note that the project coordinator will be participating in all working group discussions, and multiple stakeholders will overlap working groups, so we will be keeping a close eye on how working group conversations are evolving and looking for increasing opportunities for collaboration for project development as we progress. But we strongly feel that to move these conversations forward we really need to dial in and focus in the beginning. All stakeholders and members of the public will be invited to join any working groups they are interested in.

*It is also important to note that there are a number of important stakeholder needs and concerns that have been prioritized but the path towards project development seems clear and we expect to easily tie these needs directly into other collaborative projects as they evolve (e.g. woody invasive species control).*

Please see below for the list of working groups. Most working group titles are self-explanatory; otherwise some working group description is provided.

I. Working groups that tie in with one or more of the Assessment efforts above, but will also include discussion around novel or larger critical issues:

3A - Working Group 1 – Middle Purgatoire Sport Fishery Needs & Project Development

3B - Working Group 2 – Needs & Opportunities for Native Fish Conservation/Restoration

3C – Working Group 3 - Flows for Fish, Recreation, Agricultural, and Municipal Needs – Determining Needs & Opportunities

3D - Working Group 4 – Forest/Watershed Health & Post-Flood Impacts (Purgatoire-Cucharas Pre & Post-Fire Planning and Prioritization Assessment for Improved Watershed Health and Community Resiliency)

Project partners in the upper watershed have just begun conversations and efforts to improve communication, cross-boundary collaboration, and stakeholder education across our two sister watersheds – the Purgatoire and the Cucharas - for the purpose of more collaborative and efficient planning and implementation of our mutually related work tied to forest and watershed health and preparation for post-fire/flood impacts as well as the tie-ins with our river health and flows. In particular, PWP, ARWC, CSFS, USFS, and Huerfano County have been working closely to forward this effort, and we were recently awarded an NFF MAP grant for collaborative on-the-ground stakeholder education and engagement and fuels mitigation work. In addition, ARWC has recently spearheaded the development of the Central Arkansas Basin Mitigation Group, which we are all tying into. Finally, we look forward to utilizing/implementing the outcomes of the current statewide assessment and framework development effort when it is released publicly next year. We feel that our evolving conversations and efforts will tie in perfectly for next steps around the Statewide Framework

3E – Working Group 5 – Produced Water & River Flows Opportunities

From 1991 to 2004, a local natural gas producer Evergreen Natural Resources (ENR) began work on the development of coalbed methane resources in the Raton Basin, including the beginning of surface water discharge into the Purgatoire River in the Upper Purgatoire. ENR currently holds three active surface discharge permits along the Purgatoire River with coverage under the Colorado Discharge Permit System (CDPS). It is estimated by ENR that approximately 85% of ENR produced water could be (and has been in the past) used on the surface. Because of regulatory changes, ENR is now only discharging approximately 50% of this water, with the other 50% being disposed of in deep disposal wells. This additional produced water from ENR operations is estimated to be the equivalent of 70+ million gallons of water per month that could be discharged to the Purgatoire River and tributaries for increased beneficial uses such as boating, fishing, floating, attraction of livestock and wildlife, and numerous other agricultural benefits. In a watershed where river flows are in short supply, and an entity such as ENR has a lot of water that could potentially be utilized, it felt important to stakeholders that we move forward with conversations about possible novel opportunities for problem-solving and collaboration.

3F – Working Group 6 – Flood Risk Assessment Opportunity

This working group will be focusing on discussing and tying together multiple flood-risk related efforts that have recently been completed, are currently ongoing, or are of potential interest for the future and determine next steps, priorities, and potential projects from our stakeholder's point of view. The three primary resources/efforts that we will be incorporating into these discussions include:

- Recently completed 2020 Purgatoire River Assessment Effort that included a significant hydraulic modeling and assessment effort for the Middle Purgatoire and recommendations for potential needs and priorities to address towards developing potential projects
- A Las Animas County Flood Risk (FEMA) Study is currently in progress. PWP, along with City of Trinidad, and other key local organizations are participating in/providing feedback on this study. This effort was launched in summer 2021. An estimated timeline for this work includes conducting a data development phase between late 2021 to early 2023, development of preliminary maps and appeals in 2023, and then estimated map adoption in mid-2024 and implementation of the Effective Flood Insurance Rate Maps (FIRMs) in late 2024. Their efforts will include looking at terrain model data, incorporating survey data, collecting hydrologic data using stream gages and incorporating other information to determine flows, then moving into the hydraulic modeling stage with either 1D or 2D modeling. Several years ago a FIRM update was conducted in our watershed in the Middle Purgatoire, but that was mostly just a digitization of previous paper maps.
- Several stakeholders have mentioned an interest in learning more about FHZ mapping and better understanding how that ties into the efforts above (if at all), and potential opportunities for our watershed around FHZ mapping

II. Working groups developed specifically to tie in directly with the relevant Assessment effort described in Task 2 and support Assessment implementation, evaluation, and project development.

3G – Working Group 7 - Snow Data Assessment

3H – Working Group 8 - Sediment Assessment

3I – Working Group 9 - Irrigation Infrastructure Assessment

3J – Working Group 10 - River Flow Gage & Climate Data Station Assessment

3K – Working Group 11 - Historical Flood Control Infrastructure (Jetty Jacks) Phase 2 Assessment

3L – Working Group 12 – Ecological Health Assessment Phase 2

3M – Working Group 13 – Water Quality Assessment Phase 2

Deliverable

The deliverable for this Task will be the development of a concrete and realistic list of projects and next steps that will be directly plugged into our final Integrated Water Management Plan.

## **TASK 4 – Next Steps for Stakeholder Outreach, Education & Engagement**

### Description of Task

While we were able to engage an incredible number of stakeholders in our Phase 1 efforts (and in the face of COVID-19 challenges), we continue to see a significant number of new residents moving into our watershed each month (predominantly moving here from larger urban centers), bringing with them a host of new ideas and needs. Additionally, we found in our Phase 1 efforts that agricultural producers are particularly tough to engage in Stream Management Planning efforts as they are incredibly busy and live in the rural portions of our watershed where internet connections are poor and Zoom calls are not realistic; as a result we realize that we still have a lot of work to do around better engaging our rural agricultural stakeholders. As such, we plan to continue our stakeholder outreach and engagement using our important lessons learned in Phase 1 (e.g. surveys are not very helpful; you need to use the telephone to connect with agricultural producers in our watershed as by and large email or internet meetings are typically not realistic forms of communication). Additionally, we look forward to implementing new educational efforts that have emerged as being of interest to stakeholders as well as tying in well with Stream Management Planning efforts and our goals/objectives.

### Method/Procedure

We will accomplish this through:

4A – Stakeholder Outreach & Engagement Plan 2.0 (taking what we learned in Phase 1 and implementing our updated and adjusted Stakeholder Outreach & Engagement Plan)

4B - River Flows Education & Engagement

- River Flows Education Series – We will be implementing a river flows education series with our stakeholders that will include articles in the local newspaper, local river chats, continued social media engagement, and the development of a river flows webpage (see below)
- Purgatoire Engage with Your River Webpage/site – We will develop an educational webpage tied into the PWP website that includes direct links to river flow stations, river webcams, and other engaging data and links to encourage stakeholders to learn more and get more engaged with their river

4C – Agricultural Producers Water & Efficiency New Opportunities

- Farm Water Efficiency Workshop – We have a local producer in the lower watershed with extensive knowledge and experience in trying different water efficiency techniques on his farm. He also has a lot of experience farming in Arizona where conditions are even drier than here, and we look forward to having him share his knowledge and ideas with our stakeholders.
- New & Younger Producers Changing Water Needs Workshop – This workshop will bring the latest technology together with the new ideas of our younger agricultural producers in the watershed. We will bring in local and regional experts to provide presentations; as well we already have several committed younger producers interested in helping facilitate this workshop.

### Deliverable

Increased number of engaged stakeholders, webpage, newspaper articles, social media outreach, 2 workshops

## **TASK 5 – Task 5 – Final Plan Development**

### Description of Task

This task includes pulling together all of the results of the above project components and developing a final Purgatoire River Integrated Water Management Plan. In particular this will include that all relevant outcomes and products of both Phase 1 and Phase 2 are incorporated into this plan.

### Method/Procedure

This will involve development of several plan drafts and summaries by the project coordinator that will be evaluated and edited by stakeholders. Most importantly, at each step along the way, if there are any objections or concerns we will stop and make sure that stakeholder concerns are being addressed. It is understood that this process may move slowly but it is critical that we have full buy in from stakeholders at each step.

### Deliverable

A final stakeholder approved Purgatoire River Integrated Water Management Plan.

## **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.



Task	Description	Target Start Date	Target Completion Date	CWCB Funds	Other Funding Cash Match*	Other Funding InKind Match*	Total
1	Overall All Project Coordination & Implementation	4/1/2022	4/1/2025	\$18,850.00			\$18,850.00
2	Conducting Project Assessments (Contractors & Consultants)	4/1/2022	4/1/2024	\$99,700.00	\$71,000.00	\$28,000.00	\$198,700.00
3	Working Group Formation, Discussion & Project Development	6/1/2022	12/31/2024	\$15,600.00	\$5,000.00	\$52,184.40	\$72,784.40
4	Next Steps for Stakeholder Outreach, Education & Engagement	6/1/2022	4/1/2025	\$10,050.00			\$10,050.00
5	Final Plan Development	4/1/2023	4/1/2025	\$7,800.00			\$7,800.00
				<b>\$152,000.00</b>	<b>\$76,000.00</b>	<b>\$80,184.40</b>	<b>\$308,184.40</b>

#### CASH MATCH

\*CWCB Water Plan Grant

\*CDPHE 2022 NPS Grant (Pending)

\*USBOR Grant

\*PWP

#### INKIND MATCH

\*Arkansas River Watershed Collaborative (ARWC) (20 hrs x \$65/hr + 20 hrs x \$90/hr)

\*PWP Board Members (8 Board Members x 80 hours x \$28.54 vol rate)

\*Trout Unlimited Local Chapter Purgatoire River Anglers - Donated Stakeholder Labor for Education & Assessment (80 hours x \$28.54 vol rate)

\*Purgatoire River Run Company - Donated Stakeholder Labor for Education & Assessment (80 hours x \$28.54 vol rate)

\*Picketwire Ditch - Milinazzo - Donated Stakeholder Labor for Education & Irrigation Infrastructure (80 hours x \$28.54 vol rate)

\*Tijeras Ditch - Vigil - Donated Stakeholder Labor for Engagement & Irrigation Infrastructure (80 hours x \$28.54 vol rate)

\*PRWCD Donated Time (240 hrs x \$100/hr)

\*Stakeholder Engagement Donated Hours through Working Groups, Meetings, Conversations, and Workshops & Other Educational Activities (150 stakeholder.

Task	Description	Target Start Date	Target Completion Date	CWCB Funds	Other Funding Cash Match				Other Funding InKind Match								Total
					CWCB Water Plan Grant	CDPHE 2022 NPS Grant (Pending)	USBOR Grant	PWP	PRWCD	Arkansas River Watershed Collaborative (ARWC)	PWP Board Members	Trout Unlimited Local Chapter Purgatoire	Purgatoire River Run Company	Picketwire Ditch - Millinazzo	Tijeras Ditch - Vigil	All Other Stakeholder Engagement Donated Hours through Working Groups, Meetings, Conversations, Education	
1	Overall All Project Coordination & Implementation	4/1/2022	4/1/2025														
	Watershed Coordinator Labor (290 hrs x \$65/hr)			\$18,850.00													\$18,850.00
2	Conducting Project Assessments (Contractors & Consultants)	4/1/2022	4/1/2024		\$3,000.00		\$3,000.00	\$25,000.00									\$31,000.00
	Watershed Coordinator Labor (180 hrs x \$65/hr)			\$11,700.00													\$11,700.00
	Ecological Health Assessment Part 2			\$5,000.00						\$5,000.00							\$5,000.00
	Water Quality Assessment Part 2			\$0.00		\$40,000.00											\$40,000.00
	Snow Data Assessment			\$10,000.00						\$6,000.00							\$16,000.00
	Sediment Assessment			\$50,000.00						\$8,000.00							\$58,000.00
	Native Fish Assessment			\$20,000.00								\$1,000.00					\$21,000.00
	Irrigation Infrastructure Assessment			\$3,000.00						\$6,000.00					\$1,000.00	\$1,000.00	\$11,000.00
	River Flow Gage & Climate Data Station Assessment			\$0.00						\$4,000.00							\$4,000.00
	Historic Flood Control Infrastructure (Jetty Jacks) Assessment Part 2			\$0.00									\$1,000.00				\$1,000.00
3	Working Group Formation, Discussion & Project Development	6/1/2022	12/31/2024														
	Watershed Coordinator Labor (240 hrs x \$65/hr)			\$15,600.00	\$2,500.00		\$2,500.00										\$20,600.00
	Partner/Stakeholder Participation									\$3,100.00	\$18,265.60	\$1,283.20	\$1,283.20	\$1,283.20	\$1,283.20	\$25,686.00	\$52,184.40
4	Next Steps for Stakeholder Outreach, Education & Engagement	6/1/2022	4/1/2025														
	Watershed Coordinator Labor (120 hrs x \$65/hr)			\$7,800.00													\$7,800.00
	Workshops, Tours & Webpage Development			\$2,250.00													\$2,250.00
5	Final Plan Development	4/1/2023	4/1/2025														
	Watershed Coordinator Labor (120 hrs x \$65/hr)			\$7,800.00													\$7,800.00
				<b>\$152,000.00</b>	\$5,500.00	\$40,000.00	\$5,500.00	\$25,000.00	\$24,000.00	\$3,100.00	\$18,265.60	\$2,283.20	\$2,283.20	\$2,283.20	\$2,283.20	\$25,686.00	<b>\$308,184.40</b>
					<b>\$76,000.00</b>				<b>\$80,184.40</b>								

\*Arkansas River Watershed Collaborative (ARWC) (20 hrs x \$65/hr + 20 hrs x \$90/hr)

\*PWP Board Members (8 Board Members x 80 hours x \$28.54 vol rate)

\*Trout Unlimited Local Chapter Purgatoire River Anglers - Donated Stakeholder Labor for Education & Assessment (80 hours x \$28.54 vol rate)

\*Purgatoire River Run Company - Donated Stakeholder Labor for Education & Assessment (80 hours x \$28.54 vol rate)

\*Picketwire Ditch - Millinazzo - Donated Stakeholder Labor for Education & Irrigation Infrastructure (80 hours x \$28.54 vol rate)

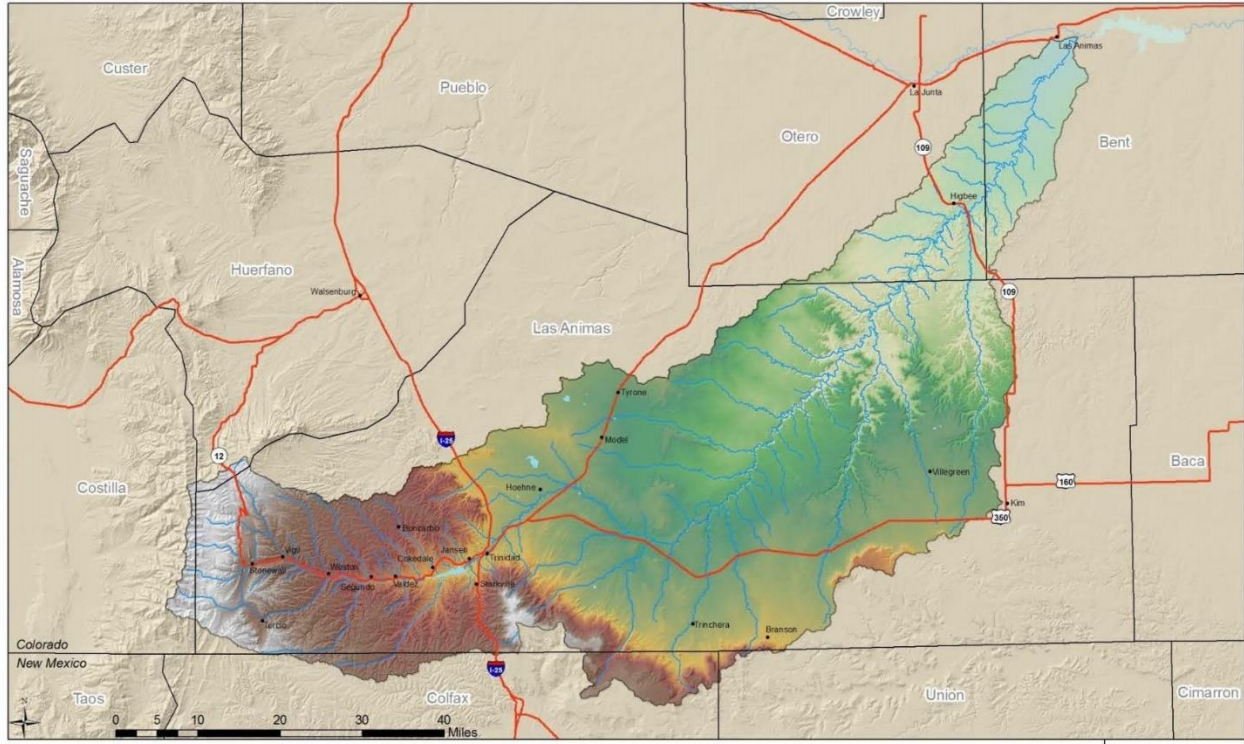
\*Tijeras Ditch - Vigil - Donated Stakeholder Labor for Engagement & Irrigation Infrastructure (80 hours x \$28.54 vol rate)

\*PRWCD Donated Time (240 hrs x \$100/hr)

\*Stakeholder Engagement Donated Hours through Working Groups, Meetings, Conversations, and Workshops & Other Educational Activities (150 stakeholders x 6 hrs each over the course of 3 years x \$28.54 vol rate)

# PURGATOIRE RIVER WATERSHED MAPS AND RIVER SECTIONS

## WATERSHED OVERVIEW

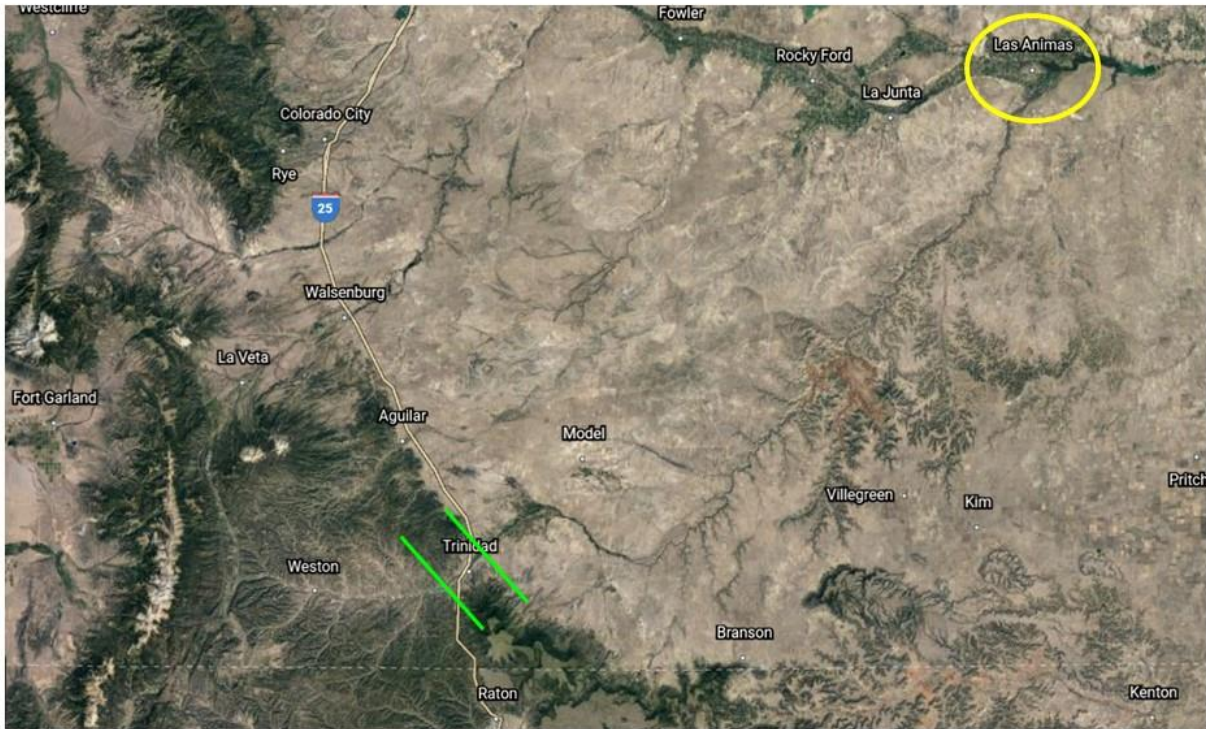


Overview of the Purgatoire River Watershed in Southeastern Colorado. The Purgatoire River begins with its headwaters in the Sangre de Cristo mountains (bottom left), then flows down through forest and open meadows to the foothills where it meets Trinidad Reservoir, then continues down across the eastern plains to where it eventually meets the confluence with the mainstem of the Arkansas River (upper right).

We have divided our watershed into 3 river sections for our SMP/IWMP work:

- Upper Purgatoire River = Extends from the headwaters in the Culebra Range of the Sangre de Cristos down to Trinidad Dam. It is approximately 28 miles from the top of the mainstem of the Purgatoire River to Trinidad Dam, but the headwaters extend up further.
- Middle Purgatoire River = Extends from the base of Trinidad Dam to the Hwy 350/160 Cutoff River Bridge. It is approximately 4.5 miles in length.
- Lower Purgatoire River = Extends from the Hwy 350/160 Cutoff River Bridge to confluence with the mainstem of the Arkansas River. It is approximately 100 miles from the Hwy 350/160 Cutoff River Bridge to Las Animas, CO near the confluence.

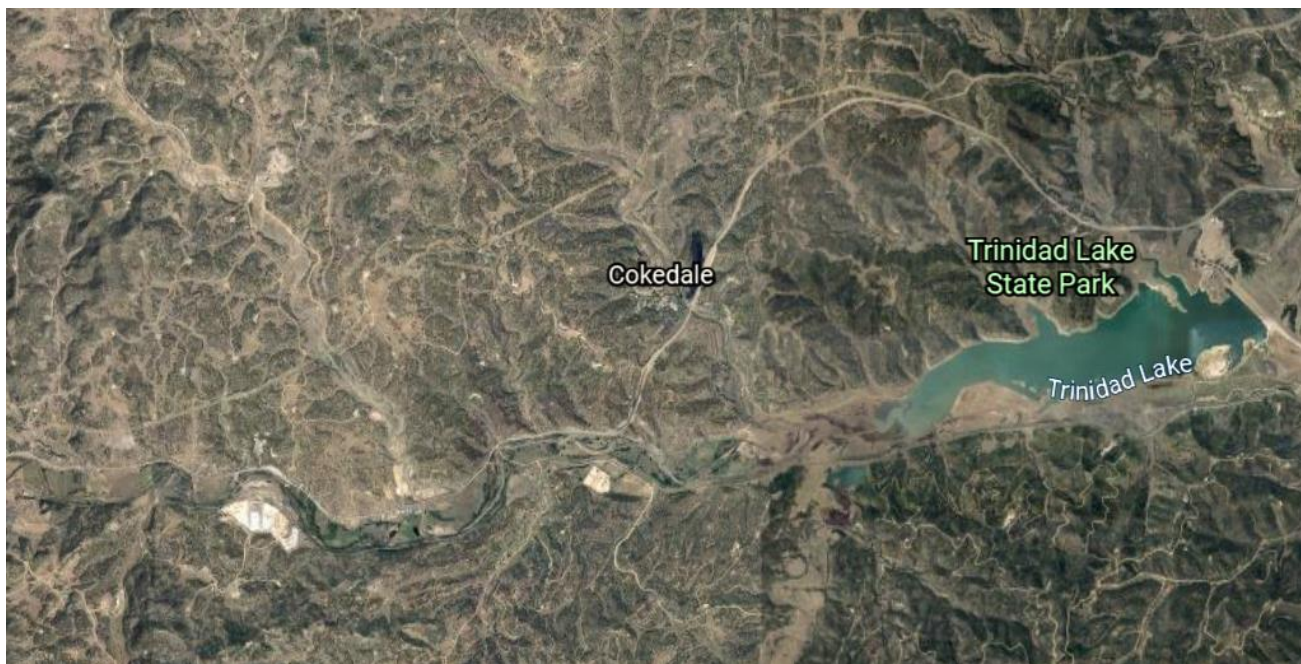
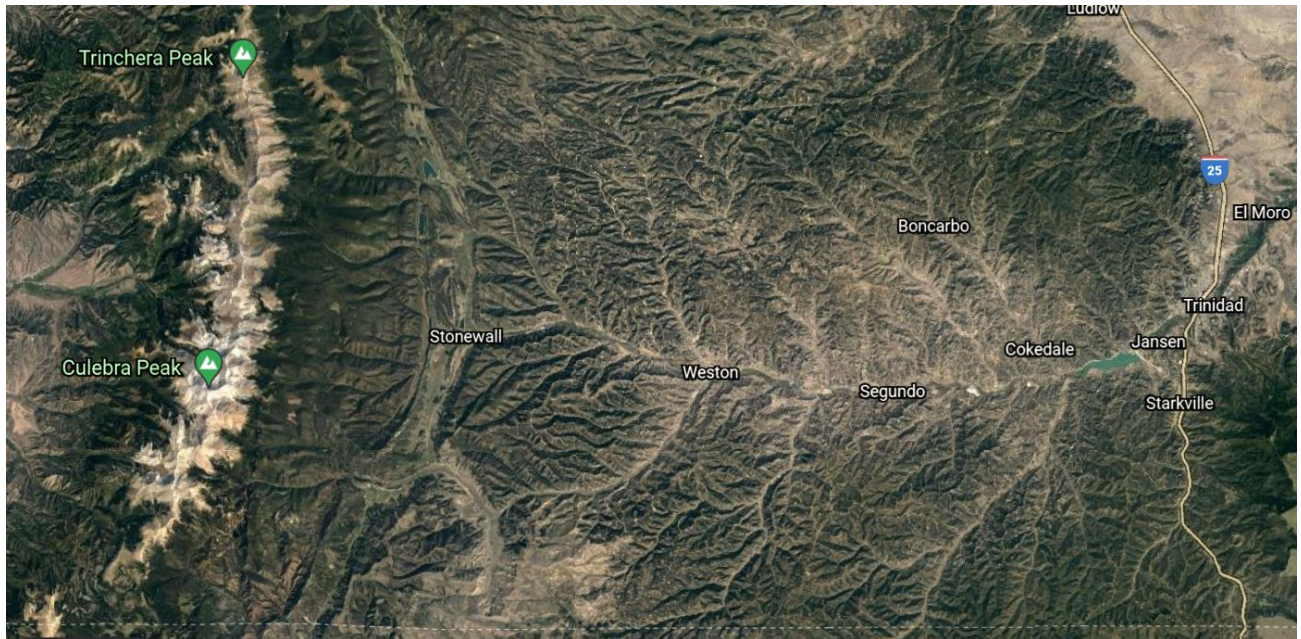
## WATERSHED OVERVIEW



Overview of the Purgatoire River Watershed in Southeastern Colorado. The two green lines show the Middle Purgatoire River section (urban wildlife corridor, running through downtown Trinidad). The yellow circle shows the confluence of the Purgatoire River with the mainstem of the Arkansas River.

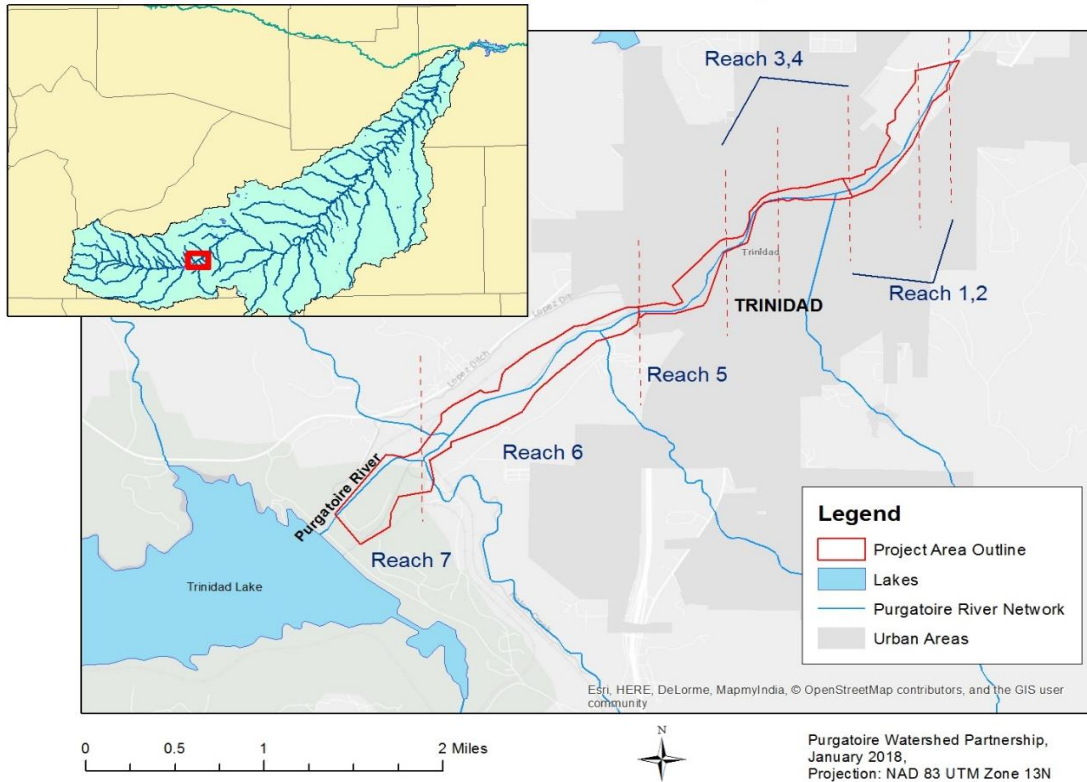
## UPPER PURGATOIRE RIVER

Extends from the Purgatoire River headwaters in Sangre de Cristo Range down to Trinidad Dam. Area consists primarily of high elevation rural agriculture, with extensive forested land, wildlife habitat, and hunting/ fishing/ camping opportunities, as well as intensive oil and gas development and several small incorporated and unincorporated towns. It is also the source of the City of Trinidad's drinking water. Primary water users: agricultural, ecological, recreational, industrial, municipal.



## MIDDLE PURGATOIRE RIVER

Extends from the base of Trinidad Dam to the eastern edge of the town of Trinidad. Area consists of an urban wildlife corridor in the foothills connecting the upper and lower watershed, and is dominated by the town of Trinidad (largest town in watershed). Primary water users: agricultural, ecological, recreational, municipal.



Middle Purgatoire River

This river section extends from the base of Trinidad Dam on the left, to the Hwy 350/160 cutoff river bridge (circled in yellow).

## LOWER PURGATOIRE RIVER

Extends from the eastern edge of the town of Trinidad to the eventual confluence of the Purgatoire River with the Arkansas River near Las Animas, CO. Area consists primarily of rural agriculture occurring across the eastern plains grassland and canyonlands, with good bird and wildlife habitat, some private land hunting and birding, some oil and gas development, and several small incorporated and unincorporated towns. Primary water users include agricultural, ecological, municipal, and industrial.



## **Letters of Support & Commitment Summary**

We are submitting the following Letters of Support and/or Commitment with this grant application:

- Frank Milinazzo, Middle/Lower Purgatoire Local Agricultural Producer – Letter of Commitment
- Jim Vigil, Upper Purgatoire Local Agricultural Producer – Letter of Support and Commitment
- Purgatoire River Water Conservancy District – Letter of Support and Commitment
- Trout Unlimited Local Chapter/Purgatoire River Anglers – Letter of Support and Commitment
- Picketwire Ditch Company – Letter of Support
- Purgatoire River Run Company – Letter of Support and Commitment
- City of Trinidad Office of Outdoor Recreation – Letter of Support
- City of Trinidad Watershed Manager – Letter of Support
- Arkansas River Watershed Collaborative – Letter of Support and Commitment
- Evergreen Natural Resources – Letter of Support
- US Forest Service – Letter of Support
- Colorado State Forest Service – Letter of Support
- Purgatoire Watershed Partnership – Letter of Commitment
- Arkansas Basin Roundtable – Letter of Support



## Letter of Support and Commitment

November 3, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The Arkansas River Watershed Collaborative is pleased to submit this Letter of Support and Commitment for the Purgatoire Watershed Partnership's (PWP) grant application to the Colorado Watershed Restoration Program for the Purgatoire River Stream Management Planning Phase 2 project.

The Arkansas River Watershed Collaborative (ARWC) strongly supports this Purgatoire River Stream Management Planning effort. These project components are critical for watershed health, water planning, and water efficiency. This work will also encourage improved communication, understanding, and collaboration between water users in the Purgatoire watershed.

ARWC and PWP have a strong working relationship, and we are partnering with multiple organizations across the Purgatoire River watershed and the Cucharas River watershed. This collaboration aims to improve communication and project productivity to improve forest and watershed health, benefiting our local communities. We look forward to continuing our conversations in the Purgatoire River watershed and collaborating on projects to reduce wildfire risk and post-fire flooding impacts. Furthermore, understanding more about the Purgatoire River through this management plan will allow us to make better decisions regarding our resources and help us raise more funding to complete this vital work. We show our commitment to this project by contributing \$3,100 in staff time to support the SMP.

Sincerely,

Jonathan Paklaian  
Executive Director  
Arkansas River Watershed Collaborative



November 1, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The City of Trinidad's Office of Outdoor Recreation submits this Letter of Support for the Purgatoire Watershed Partnership's (PWP) Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program.

Our watershed continues to see an increase in enthusiasm and support for advancing recreational opportunities that all community members and visitors can participate in and enjoy. From the recent establishment and opening of Fisher's Peak State Park to new opportunities at Trinidad Lake State Park and City-owned properties throughout the watershed, we are seeing more and more users engaging in both land-based recreation like hiking, biking, and running as well as water-based recreation including fishing, paddle boarding, inner tubing, and kayaking.

In particular, a growing number of community members and visitors are discovering our local Purgatoire River as a beautiful and important asset worth protecting and restoring. Along the stretch of river that flows through downtown Trinidad, we are also seeing increasing support for implementing carefully and thoughtfully developed enhancements that improve opportunities for engagement with the river at all levels whether for active recreation, youth outdoor education, or simply sitting on a bench admiring the river. Our downtown stretch of river also serves as a critical urban wildlife corridor for important resident wildlife as well as wildlife that migrate back and forth between the forest and high mountain meadows of our upper watershed and the wide-open prairie grasslands of our lower watershed. It is not uncommon for recreators playing along this downtown stretch of river to catch special glimpses of bear, bobcat, mule deer, white tail deer, beavers, blue herons, Redtail hawks, kingfishers, osprey, and a variety of fish species as they walk, bike, or inner tube on by.

As the City of Trinidad's Office of Outdoor Recreation, we support the development of new recreational opportunities along the river while also maintaining and restoring the ecological health of our river – not only for obvious recreational and ecological benefit, but also for economic benefit, as our local downtown community is working hard to develop more long-term and sustainable sources of income around (for example) recreational tourism after experiencing a long history of boom and bust economics.



We see PWP's Stream Management Planning efforts as an important platform to encourage and support improved education, communication and collaboration around the river between diverse water users (e.g. recreational, agricultural, municipal, environmental, local developers) for the mutual benefit of all. We have a lot of interesting conversations ahead around recreational development and ecological conservation/restoration on our river (both of which are closely tied to river health and flows), and those conversations will only be made easier and more productive by water users better understanding each other's needs and concerns so that we can work better together to develop creative and viable solutions that benefit everyone.

In summary, we look forward to being a partner on this project and hope you will consider funding this important work in our watershed.

Sincerely,

Jared Chatterley  
Director  
City of Trinidad  
Office of Outdoor Recreation

November 3, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The Colorado State Forest Service (CSFS) submits this Letter in support of the Purgatoire Watershed Partnership's (PWP) Purgatoire River Stream Management Planning/Integrated Water Management Plan Phase 2 grant application to the Colorado Watershed Restoration Program.

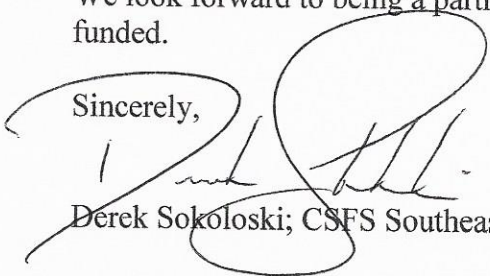
The CSFS strongly supports collaborative projects that improve forest and watershed health directly through on-the-ground projects as well as collaborative planning and project development involving diverse stakeholders. In our area, these stakeholders have been willing to come together around the common goals of improving the overall health of local forests while also addressing their own needs and concerns such as protecting critical infrastructure and community lives and property from catastrophic fire and flooding.

The CSFS is excited to already be involved in a new and growing collaborative partnership with PWP, the Arkansas River Watershed Collaborative (ARWC), US Forest Service, Huerfano County, and multiple other local partners working to improve communication and collaboration on behalf of the forested lands of the Purgatoire River watershed as well as the directly adjacent forestlands in the Cucharas River watershed. While our recent collaborative efforts have been focused primarily on more coordinated fuels mitigation work across property boundaries and stakeholder education, we look forward to expanding our conversations to include discussions regarding better preparation for potential catastrophic flood impacts.

We are excited to see this Stream Management Planning effort happening in the Purgatoire River with obvious benefits for overall forest, watershed, and river health. As well, this effort has clear additional benefits for local communities including improved mutual understanding and collaboration between different water user groups (e.g. environmental, recreational, agricultural, municipal, industrial), which will be critical as we move forward into the future with limited water supplies and increasing diverse demands.

We look forward to being a partner on this project and highly recommend that this project is funded.

Sincerely,



Derek Sokoloski; CSFS Southeast Area Manager



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Evergreen Natural Resources LLC  
1875 Lawrence Street, Suite 1150  
Denver, CO 80202-1871  
Tel: (303) 298 - 8100

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program  
Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

Evergreen Natural Resources LLC (ENR) submits this Letter of Support for the Purgatoire Watershed Partnership's Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program. We look forward to being a partner on this project and to support the stewardship of the Purgatoire River Watershed.

Evergreen Resources Inc. (1991 – 2004) positively impacted the development of coalbed methane resources in the Raton Basin. This set up the beginning of the surface water discharge and engagement with stakeholders for the beneficial re-use of a convenient and readily accessible resource for no cost. Now ENR (2018 – present), with the same CEO, Mark S. Sexton, values the same stewardship and stakeholder benefit of this increasingly prized and valued natural resource – water.

ENR currently holds three active surface discharge permits along the Purgatoire River with coverage under the Colorado Discharge Permit System (CDPS). The three CDPHE WQCD permit numbers are CO0047767, CO0048003, and CO0047776. Given the outstanding produced water quality, approximately 85% of ENR produced water could be (and has been in the past) used on the surface. Due to sweeping regulatory changes which disregard the value of this clean water source, ENR is now only discharging approximately 50% of this water, with the other 50% being disposed of in deep disposal wells, contaminating this clean water forever. This additional clean produced water from ENR operations is the equivalent of 70+ million gallons of water *per month* that should be discharged to the Purgatoire River and Tributaries for increased beneficial uses such as boating, fishing, floating, attraction of livestock and wildlife, and numerous other agricultural benefits.

Produced water from the coal seams in Las Animas County have been producing water to surface discharge points for more than two decades with no detrimental impact to the natural environment. More recently, this once abundant and *free-to-stakeholders* source of water has been restricted by increasing regulatory requirements from the CDPHE and COGCC that are imposed as one-size-fits-all regulations throughout the state of Colorado,

Ms. Julie Knudson  
October 29, 2021  
Page Two

with very limited consideration from local stakeholders or the impacts that reduced access to this water will have on their livelihoods.

ENR would like to extend our support and work with the Purgatoire Watershed Partnership to improve engagement, education, awareness, and collaboration with all stakeholders along the Purgatoire River and the Arkansas River Basin to continue to find solutions, give back, and enhance this prosperous area that has provided us with opportunity. We believe that the clean, produced water from ENR CBM wells can help support ranchers, irrigators, recreational activities, fishing and hunting, water rights management, tourism, community engagement, and overall economic prosperity and well-being for the people in Las Animas County and surrounding areas.

Sincerely,  
Evergreen Natural Resources LLC

A handwritten signature in black ink, reading "Mark S. Sexton". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark S. Sexton  
Chairman & CEO

CC: Michael Joy, ENR LLC  
Kevin Davis, ENR LLC  
Mackenzie Smith, ENR LLC

## **Picketwire Ditch Company Letter of Support**

November 1, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

This Letter of Support is submitted by the Picketwire Ditch Company in strong support of the Purgatoire Watershed Partnership's grant application to the Colorado Watershed Restoration Program for the Purgatoire River Stream Management Planning Phase 2 project.

For many years our river and watershed has supported and been largely comprised of agricultural producers in both the lower and upper watershed. Historically, the majority of residents in our watershed understood the needs and realities of families working the land to support themselves and their communities, and for the most part were respectful of or at least understood how rural private property and water rights 'worked'. More recently, we are witnessing an unprecedented increase in visitors and new residents moving into the watershed from larger urban areas with little to no background in farming or ranching, and little understanding of the negative impacts that their recreational activities (or other activities) on or near private agricultural lands and along the river may have on the livelihoods of our hardworking producers. Education is needed to help visitors and newcomers better understand the negative impacts that they can have on our income, property, and families (even if they set out with good intentions). We see this Stream Management Planning effort as an important effort towards accomplishing this education.

We also support other components of this project including conducting a snow pack data assessment to determine better/more comprehensive snowpack data for our watershed for annual water planning purposes; in-stream irrigation infrastructure assessments towards improving irrigation infrastructure and efficiency; and an assessment of current river flow gages (private and public gages of cooperating entities) to determine current status and needs and gaps tied to improving river flow gaging accuracy and flow data availability that could significantly benefit our normal daily river flow/water management operations as well as provide improved critical information in times of high precipitation/high water events.

We look forward to partnering with Purgatoire Watershed Partnership on this effort and strongly recommend that this project is funded.

Sincerely,



Picketwire Ditch Company

**Frank Milinazzo, Farmer & Rancher, Ditch Rider**

**Letter of Commitment**

November 1, 2021

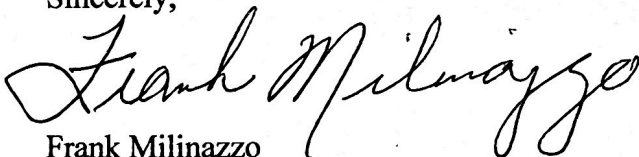
Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

I am a local farmer and rancher, ditch rider, and own shares in the Picketwire Ditch Company. This Letter of Commitment states that I will provide a total of 80 hours of matching funds toward this project through donated labor towards irrigation infrastructure assessments, providing assistance in education and outreach around my agricultural perspective to diverse water users, and providing additional relevant stakeholder support as time allows towards this Stream Management Planning effort. This totals \$2,283.20 in in-kind match (\$28.54 volunteer rate x 80 hours).

Sincerely,

A handwritten signature in black ink, reading "Frank Milinazzo". The signature is written in a cursive, flowing style. The first name "Frank" is written with a large, looped "F". The last name "Milinazzo" is written with a large, looped "M" and a long, sweeping "z" that extends to the right.

Frank Milinazzo

**Purgatoire River Run Company  
Letter of Support and Commitment**

November 3, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

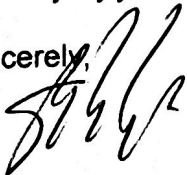
We submit this Letter of Support for the Purgatoire Watershed Partnership's (PWP) Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program. The Purgatoire River Run Company strongly supports this Stream Management Planning/Integrated Water Management Planning effort to support and advance conversations and planning to address new opportunities for increasing and/or adjusting river flows for greater recreational and environmental benefit (while ensuring that no property rights or water rights are injured).

Our company - the Purgatoire River Run Company - is an outdoor water recreation company based in Trinidad, Colorado and specializes in guided inner tube trips down the Purgatoire River through downtown Trinidad. We have been in business for three years and serve a wide variety of clients ranging from longtime locals to their family and friends to an increasing number of recreation tourists who are beginning to discover the wonders and opportunities of the Trinidad area and our watershed.

We look forward to participating in the assessments, conversations, and planning relevant to improved river recreation opportunities and related river flows. For example, we look forward to advancing conversations with agricultural producers to determine how they could benefit from running more consistent and higher river flows when it would also best advantage river recreation. We are also excited to see an emphasis on stakeholder education about 'how our river works' and getting stakeholders more interested in learning about and tracking river flows on the Purgatoire, which we feel will get stakeholders more engaged and invested in having conversations about river flows.

In summary, we strongly support this project and recommend that it is funded. We will provide \$2,283.20 of In-Kind Labor Match for this project (\$28.54 volunteer rate x 80 hours) including further jetty jack assessment work and participating in relevant meetings and planning efforts.

Sincerely,



Brad Kirby  
Owner, Purgatoire River Run Company



Purgatoire Watershed Partnership • 3590 East Main Street, Trinidad, CO 81082 • 970-420-1915

November 3, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The Purgatoire Watershed Partnership submits this Letter of Commitment on behalf of our Purgatoire River Stream Management Planning/Integrated Water Management Plan Phase 2 grant application to the Colorado Watershed Restoration Program.

The Purgatoire Watershed Partnership commits to providing direct cash match of \$25,000, as well as additional cash match through the following grant funds: \$5,500 of CWCB Water Plan Grant funds, \$5,500 of USBOR Cooperative Watershed Management Program Phase II Grant Funds, and \$40,000 in CDPHE 2022 NPS Grant funds (Pending). We also commit \$18,265.60 of In Kind match for PWP Board Member time committed to this project (8 Board Members x 80 hours x \$28.54 volunteer rate).

Sincerely,

A handwritten signature in black ink, appearing to read "Julie", is written over a light yellow rectangular background.

Julie Knudson  
Executive Director/Watershed Coordinator  
Purgatoire Watershed Partnership



## **Letter of Support and Commitment**

**November 3, 2021**

**Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203**

**RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application**

**Dear Mr. Sturm,**

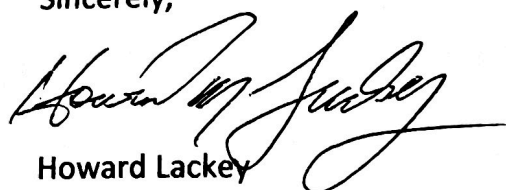
**The Trout Unlimited Local Chapter/Purgatoire River Anglers submits this Letter of Support for the Purgatoire Watershed Partnership's (PWP) Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program.**

**We look forward to being a partner on this project for multiple reasons. We are excited to see more conversations and assessment work being conducted on a broader scale in the Purgatoire River watershed in support of conserving and restoring native fishes as well as our growing sport fishery. We also support moving forward with having careful conversations with diverse water users about their needs and desires tied to river flows (including those of fish), but only if emerging opportunities for collaboration ensure that the majority owners of the flows on our river (agricultural producers) will benefit directly and/or not be harmed in any way.**

**We feel that the conservation of our water and lands to ensure the long-term health and sustainability of our Purgatoire River watershed is critical. Over the years, we have spearheaded multiple habitat protection and improvement projects on behalf of fish and other aquatic life along the Purgatoire River, as well as partnered with PWP and other local and regional partners on important scientific assessments to determine the current health and potential of our river for conservation and restoration efforts and for the careful development of a local sport trout fishery. While we support the development of more recreational opportunities along the river, we are vocal supporters of the careful balance that must be walked to ensure that the health of our river and associated aquatic organisms, birds, and wildlife are absolutely protected.**

We look forward to being a part of this important project and associated conversations and planning for the benefit of overall river health and function as well as for the benefit of our local community. We commit to providing a total of 80 hours of matching funds toward this project through donated labor towards participating in fish assessment work as well as associated meetings, conversations, and planning to forward these Stream Management Planning efforts. This totals \$2,283.20 in in-kind match (\$28.54 volunteer rate x 80 hours).

Sincerely,

A handwritten signature in black ink, appearing to read "Howard Lackey", with a stylized, flowing script.

Howard Lackey

Trout Unlimited Local Chapter/Purgatoire River Anglers

**Jim Vigil**  
**Tijeras Ditch Company, Farmer**

**Letter of Support and Commitment**

November 3, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

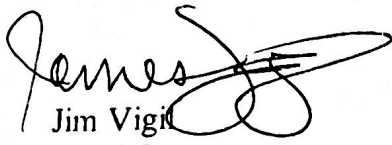
This Letter of Support and Commitment is submitted in strong support of the Purgatoire Watershed Partnership's grant application to the Colorado Watershed Restoration Program for the Purgatoire River Stream Management Planning Phase 2 project.

I am a local farmer and shareholder in the Tijeras Ditch Company located on the upper Purgatoire River above Trinidad Lake. We predominantly grow hay and have horses on our property, although at times we also have cattle. My family has lived here and worked our land for many years, and we have a strong commitment to and appreciation for the Purgatoire River and our watershed. A fair amount of elk utilize our property, and while this sometimes requires additional maintenance of fencing, we support having healthy wildlife populations on our land. Our land runs along approximately one mile of the Purgatoire River, and along with providing good wildlife habitat in general, our stretch of river is also considered to have good fish habitat and fishing.

We support this Stream Management Planning (Integrated Water Management Planning) effort to implement important assessment projects (e.g. irrigation infrastructure, snow pack data, sediment data, flow gage and climate data stations) and further education and collaboration in our watershed for the benefit of our land and livelihood as well as to benefit watershed health and resiliency and our local communities. We are excited to be a part of this effort through working with partners for an irrigation infrastructure assessment on our ditch to determine needs and opportunities, and participating in conversations between diverse water users to better share our agricultural and sportsmen's perspective, as well as listen to other perspectives, so that we can have more productive conversations moving forward about water and flows.

We look forward to being a partner on this project and commit to providing a total of 80 hours of matching funds toward this project through donated labor towards our irrigation infrastructure assessment as well as participating in meetings, conversations, and planning to forward these Stream Management Planning efforts. This totals \$2,283.20 in in-kind match (\$28.54 volunteer rate x 80 hours).

Sincerely,

A handwritten signature in cursive script, appearing to read "James" or "Jim", with a large, stylized flourish at the end.

Jim Vigil  
Local Farmer  
Tijeras Ditch Company Shareholder

A handwritten signature in cursive script, reading "Keith E. Mantelli".

Keith E. Mantelli  
Local Farmer

Tijeras Ditch Company President

November 2, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

This Letter is submitted by the City of Trinidad's Watershed Manager in support of the Purgatoire Watershed Partnership's (PWP) Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program.

This Phase 2 Stream Management Planning (Integrated Water Management Planning) effort focuses on multiple critical components important for advancing water resource protection, water planning, and watershed health, as well as improving water infrastructure and efficiency in the Purgatoire River watershed. Specific project components that may be particularly beneficial to our work include the snow data assessment to determine more comprehensive options for acquiring snowpack data to significantly improve water planning; the sediment assessment to better understand sediment loads on our river and contributions to Trinidad Reservoir; and working to improve planning and cross-boundary collaboration around forest/watershed health in order to better address and prioritize efforts to protect against potential catastrophic fire and flood (including incorporating planning for post-fire/flood impacts and improved watershed and community resiliency). Other important project components include the in-stream irrigation infrastructure assessment and the river flow gage and climate data station assessment.

The focus on education and improved communication and collaboration between diverse water users is also viewed as an important aspect of this project. In our watershed, we have an increasing number of water users, each with their own priorities, needs, and concerns. The diversity of water users is also increasing – where water use historically focused most heavily on agricultural, municipal, and industrial uses, we are now seeing a growing number of water users putting a higher value on recreational and environmental flows/water uses in our watershed. As many of these same new water users do not have a background in agricultural production, water rights, and/or water management, the educational outreach and engagement aspects of this project will play a critical role in advancing water user understanding of 'how water works' in our watershed, so that we can all have more effective and productive conversations about water and flows moving forward.

The City of Trinidad's municipal pool in Trinidad reservoir will be an important component of Trinidad's growth. Trinidad Lake is on-stream storage. The protection of the watershed is crucial to the future use of our water resource.

This is an important project with both localized and large-scale benefits for our watershed and community members. We highly recommend that this project is funded.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Ramirez", with a long, sweeping horizontal stroke extending to the right.

Gil Ramirez  
Watershed Manager  
City of Trinidad

**PURGATOIRE RIVER WATER CONSERVANCY DISTRICT**

3590 East Main Street, Suite 3

Trinidad, Colorado 81082

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**(719) 846-7285**

November 11, 2021

Colorado Water Conservation Board

Department of Natural Resources

Attn: Mr. Chris Sturm

1313 Sherman Street, Room 718

Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 Application

Dear Mr. Sturm,

This Letter of Support and Commitment is submitted by the Purgatoire River Water Conservancy District (PRWCD) in strong support of the Purgatoire Watershed Partnership's grant application to the Colorado Watershed Restoration Program for the Purgatoire River Stream Management Planning Phase 2 project.

The PRWCD works closely with local irrigators and other water managers and decision makers responsible for the efficient and responsible management of water rights and flows within the PRWCD, as well as other important local river partners such as the Purgatoire Watershed Partnership.

The PRWCD strongly supports multiple components of this Purgatoire River Stream Management Planning project that directly tie into the PRWCD's own water resources and river flow management goals and which address critical needs and gaps in the Purgatoire River watershed related to improving water resource management and efficiency in the PRWCD.


Specifically, we support the following project components: sediment assessment to better determine sources of sediment inflows to the Purgatoire River and opportunities to reduce these sediment inflows into Trinidad Reservoir; the snow pack data assessment to assist the PRWCD in determining new technology and more comprehensive options for gathering more

accurate snow data for annual water forecasting and planning purposes; the irrigation infrastructure assessment to determine the needs and opportunities for irrigation infrastructure and efficiency improvements of PRWCD member ditches; and the assessment of current Purgatoire River flow gages (private and public gages of cooperating entities) to determine the needs and gaps tied to improving river flow gaging information, accuracy and water rights administration with the potential significant benefit for our daily river flow and water management operations as well as providing critical information in times of high flow events. We are also very supportive of conducting the climate data station assessment to understand and document current gaps and opportunities related to gathering weather data and other critical climate data directly tied to irrigation water requirements and project supply management in the PRWCD.

We also support the project goals of improved engagement and education of diverse water users, who do not always understand how and why Purgatoire River flows are managed the way they are and look forward to more informed and productive conversations moving forward around water and water rights administration as a result of this effort.

PRWCD will provide an in-kind match for this project with a value of \$24,000 (240 hours x \$100/hour) through assessment and evaluation work conducted in support of project goals that directly tie into the roles and responsibilities of the PRWCD.

Sincerely,

A handwritten signature in black ink, appearing to read "David Philpott", written over a horizontal line.

Mr. David Philpott, President of the Board  
Purgatoire River Water Conservancy District

Cc: PRWCD Board of Directors



United States  
Department of  
Agriculture

Forest  
Service

Pike and San Isabel  
National Forests  
Cimarron and Comanche  
National Grasslands

San Carlos Ranger District  
3028 E. Main  
Canon City, CO 81212  
(719) 269-8500  
Fax (719) 269-8719  
[www.fs.fed.us/r2/psicc](http://www.fs.fed.us/r2/psicc)

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**File Code:** 1580

**Date:** November 9, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The Pike-San Isabel National Forests & Cimarron and Comanche National Grasslands, San Carlos Ranger District, strongly supports the Purgatoire Watershed Partnership's Purgatoire River Stream Management Planning/Integrated Water Management Plan Phase 2 grant application to the Colorado Watershed Restoration Program.

In particular, we are strongly supportive of improved coordination, communication, and collaboration between the Forest Service and surrounding diverse property owners in the Purgatoire River watershed and its sister watershed the Cucharas River watershed (the San Carlos Ranger District straddles both watersheds) for the purpose of advancing our goals as well as those of our partners to improve forest health, and to be more collaborative and strategic about fuels mitigation efforts so that we are maximizing effectiveness of such treatments and working across boundaries to better protect our mutual resources and local communities.

We also feel that it is important to begin having more collaborative conversations and strategy regarding better preparation for post-flood impacts should we see a catastrophic fire occur in the upper forested portions of the watersheds in the future. We have critical drinking water sources and other critical infrastructure in our upper watershed, not to mention the life and property in the local communities, that would be significantly impacted by post-fire catastrophic flooding. Such flooding, should it occur, would likely involve movement of large volumes of water, woody debris, and sediment on a river that continues to see increasing channelization and a reduction in opportunities for flood waters to spread out and slow down.

We look forward to working together with Purgatoire Watershed Partnership, Arkansas River Watershed Collaborative, and all other project partners to advance these conversations and efforts for the benefit of all. We highly recommend the funding of this important project for the Purgatoire River watershed.

Sincerely,

Destiny Chapman  
District Ranger



## **Arkansas Basin Roundtable**

November 16, 2021

Colorado Water Conservation Board  
Department of Natural Resources  
Attn: Mr. Chris Sturm  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Purgatoire Watershed Partnership's Colorado Watershed Restoration Program Stream Management Planning Phase 2 Grant 2021 application

Dear Mr. Sturm,

The Arkansas Basin Roundtable (Roundtable) submits this Letter of Support for the Purgatoire Watershed Partnership's Purgatoire River Stream Management Planning Phase 2 grant application to the Colorado Watershed Restoration Program.

The Roundtable supports and encourages important projects such as this Stream Management Planning Phase 2 effort on the Purgatoire River focused on gathering critical information tied to better informing water planning and management of river flows and storage, and working to engage and educate diverse water users (e.g. agricultural, municipal, industrial, ecological, recreational) to encourage improved mutual understanding and collaboration. Specifically, this project includes conducting a snow data assessment, a sediment assessment, a river flow gage and climate data station assessment, and a native fish assessment. This effort will move forward Phase 2 tasks tied to an irrigation infrastructure assessment, jetty jacks assessment, and Ecological Health Assessment and Water Quality Assessment initiated in the prior Phase 1 SMP effort. This project will also initiate or continue critical conversations around improved collaboration and planning for forest/watershed health and fire/post-flood impacts; needs and opportunities for native fish and further development of the recreational trout fishery; opportunities for flood risk planning; and industrial water/flows realities and opportunities. The educational components of this project also tie in with the Roundtable's Public Education Participation & Outreach (PEPO) program goals, and project partners will be working in collaboration with PEPO as relevant on this effort.

In summary, the Roundtable fully supports this effort of the Purgatoire Watershed Partnership and the work they are doing on the Purgatoire River, and this project clearly supports the goals identified in the Arkansas Basin Implementation Plan and in the Colorado State Water Plan.

Sincerely,



Mark Shea  
Chair