I. Project Title: FR-168 White River Management Plan

II. Bureau of Reclamation Agreement Number(s): N/A

III. Principal Investigator(s):
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IV. Abstract: Provide and protect flows for endangered fish in the White River

V. Study Schedule: 2012 - 2019

VI. Relationship to RIPRAP:
I. PROVIDE AND PROTECT INSTREAM FLOWS (HABITAT MANAGEMENT)
   I.B.3. Develop and implement a White River Management Plan
   I.B.3.a. Conduct programmatic Section 7 and NEPA compliance on recovery actions and a level of future water demand.

VII. Accomplishment of FY 2016: We refined a schedule and defined the participant in the below sequence document:

SEQUENCING AND ROLES FOR UPDATE AND FINALIZATION OF ENDANGERED FISH FLOW RECOMMENDATIONS FOR USE IN MANAGEMENT PLAN AND PROGRAMMATIC BIOLOGICAL OPINION FOR THE WHITE RIVER BASIN IN COLORADO AND UTAH (July 2016)

This proposal applies the program protocol and responds to the requests for clarification of the roles of the PDO, the modeling contractor, the program committees, the White River Work Group (WRWG), and the USFWS in the update, review and approval of the flow recommendations

<table>
<thead>
<tr>
<th>Estimated dates of completion&lt;sup&gt;1&lt;/sup&gt;</th>
<th>WHO</th>
<th>WHAT</th>
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<tbody>
<tr>
<td>Dec-16</td>
<td>PDO, USFWS, Planning Team, WRWG</td>
<td>Develop Future Demand Scenarios. PDO will tabulate and review future demands in CO and UT, including scenarios and storage developed by the Yampa/White BRT for future demands. High and low scenarios that represent a range of reasonable future demands will be selected by the Planning Team in consultation with the WRWG and USFWS. <strong>July – Sep, 2016</strong></td>
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<tr>
<td><strong>Concurrent activities; greater detail provided in cells to right.</strong></td>
<td>Contractor</td>
<td>Develop Current Hydrology. Generate daily current flows by extending StateMod to the Watson gage and consult with Utah on the extension of StateMod to the Green River so as to model future demands in Utah. Restate all flow statistics and daily hydrographs for the baseline. <strong>July – Sep, 2016</strong></td>
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<td></td>
<td>PDO in concert with Flow Rec authors, Planning Team</td>
<td>Specify Preliminary Flow Targets (using current daily flows from StateMod). Review and resolve comments on July 2011 draft flow recommendations report, including the Topics prepared by TNC for the 12-10-2012 workshop. Incorporate current hydrology and flow statistics and hydrographs developed by contractor. <strong>Sep – Oct, 2016</strong></td>
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<td></td>
<td>PDO, Planning Team, WRWG</td>
<td>PDO will seek feedback on Preliminary Flows Targets from the Planning Team, the BC and WAC, and will keep WRWG apprised of the specification of the preliminary flow targets. The WRWG will coordinate any concerns / comments through their Recovery Program representative. <strong>Nov – Dec, 2016</strong></td>
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<td>May-17</td>
<td>Contractor, PDO, Planning Team, WRWG</td>
<td>Model Future Demands and Identify Impacts on Preliminary Flow Targets. The contractor will model the selected future demand scenarios (including storage for future demands) and identify impacts on the preliminary flow targets. PDO and Planning Team will keep WRWG apprised of the impacts on the preliminary flow targets. The WRWG will coordinate any concerns / comments through their Recovery Program representative. <strong>Nov 2016 – May 2017</strong> using the outputs from Tasks 2a and 2b in the Wilson Water scope of work</td>
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<tr>
<td>Sep-17</td>
<td>USFWS, BC, WAC, MC, PDO, Planning Team, WRWG, Contractor</td>
<td>Finalize Draft Flow Recommendations Report. USFWS will update the draft flow recommendations report after considering the impact of future demands and new storage on the preliminary flow targets and responding to independent peer review. USFWS will seek approval of a final draft flow recommendations report, first, from the BC and WAC and then the MC (from an implementation perspective) before issuing a final report. PDO and Planning Team will keep WRWG apprised of any significant changes to the preliminary flow targets. The WRWG will coordinate any concerns / comments through their Recovery Program representative. This will encompass the iterative modeling Wilson Water has identified as Task 2c. <strong>Mar – Sep, 2017</strong></td>
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<td>Sep-17</td>
<td>PDO, USFWS, Planning Team, WRWG</td>
<td>PDO and USFWS will develop non-flow management actions to improve endangered fish populations in the White River and identify how such actions (in addition to the final flow recommendations) will offset the flow impacts from agreed upon amount of future water development. We expect the USFWS will seek input from the BC, WAC, or MC on how these non-flow management actions will offset the depletion effects to the endangered fish populations. PDO and Planning Team will keep WRWG apprised of these non-flow management actions. The WRWG</td>
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<sup>1</sup> Derived primarily from the Wilson Water proposal and Director Walsh’s letter to Representative Tipton.
will coordinate any concerns / comments through their Recovery Program representative. These activities should be accomplished in concert with finalization of the flow recommendations. **Feb – Sep, 2017**

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<tr>
<th>Nov 2017</th>
<th><strong>Contractor, WRWG, Planning Team</strong></th>
<th>Wilson Water finalizes report <strong>Sep – Nov, 2017</strong></th>
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<tr>
<td>Feb 2018</td>
<td><strong>PDO, USFWS, WRWG</strong></td>
<td>Draft remainder of White River Management Plan, with all other roles and sequencing to be specified. Service should start drafting PBO through this timeframe as well. We expect limited involvement from WRWG at this point. <strong>Sep 2017 – Feb 2018</strong></td>
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<td>March 2018</td>
<td><strong>WRWG and USFWS</strong></td>
<td>Sign a Cooperative Agreement (CA) to implement the Management Plan. Drafting the CA should occur coincident with drafting the Management Plan. Service signature constitutes the federal action that causes the PBO (the PBO should be well underway by this point in time).</td>
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<tr>
<td>June 2018</td>
<td><strong>USFWS</strong></td>
<td>PBO complete</td>
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The Planning Team now consists of Tom Pitts for all water users, Tom Chart and Jana Mohrman for the PDO, Michelle Garrison for the CWCB, James Greer for Utah Division of Water Rights, and Robert Wigington (transitioning to Meg White and Nancy Smith) for TNC, and Alden Vanden Brink, District Manager Rio Blanco Water Conservancy District.

The White River Work Group now consists of the Yampa/White BRT, including the Rio Blanco Water Conservancy District, the Uintah/Ouray Ute Indian Tribe, the BLM, CRWCD, Uintah Water Conservancy District, Utah Division of Water Resources

The BC, WAC, and MC refer to, respectively, the Biology Committee, Water Acquisition Committee and Management Committee for the Upper Colorado Endangered Fish Recovery Program

The PDO refers to the Program Directors Office, which runs the Upper Colorado Endangered Fish Recovery Program and is staffed by the USFWS

The USFWS refers to the U.S. Fish and Wildlife Service, which is responsible for authoring the preliminary flow targets, the final draft flow recommendations report, and the Programmatic Biological Opinion for the White River Basin. The PDO will coordinate USFWS representation (e.g. USFWS personnel who serve as authors of the flow recommendations and / or personnel from Ecological Services (UT and CO)) and input throughout this process. In many instances the PDO will lead these USFWS tasks.

VIII. Additional noteworthy observations: The Yampa/White/Green round table hired Wilson Water Group (WWG) to convert the StateMod to a daily step model and is working closely with the recovery Program to help us understand current hydrology (1975 – 2015, 41 years with accurate diversion records) and what flow targets depict natural flow for native fish.

IX. Recommendations: USFWS, CWCB, Utah and the Ute Tribe work together to hire a consultant to model current, future, and endangered fish needs.

X. Project Status: We are current on the below assignment
<table>
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<th>Specify Preliminary Flow Targets (using current daily flows from StateMod). Review and resolve comments on July 2011 draft flow recommendations report, including the Topics prepared by TNC for the 12-10-2012 workshop. Incorporate current hydrology and flow statistics and hydrographs developed by contractor. Sep – Oct, 2016</th>
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XI. FY 2016 Budget Status

A. Funds provided: 7/13/2013 The State legislature approved $250K for the White River Plan from the Species Conservation Fund
B. Funds Expended: $0
C. Difference: $0
D. Percent of the FY 2016 work completed: NA
E. Recovery Program funds spent for publication charges: N/A

XII. Status of Data Submission N/A

XIII. Signed: Jana Mohrman 11/10/2016 Principal Investigator Date

Signed: Michelle Garrison 12/??/2016 Principal Investigator Date