ORDER APPROVING PETITION FOR CHANGE IN PURPOSE OF USE AND DEDICATION OF INSTREAM FLOW

SOURCE:  Hole in the Ground Creek tributary to the Shasta River
          Little Springs Creek tributary to Big Springs Creek thence the Shasta River
          Big Springs Creek tributary to the Shasta River
          Shasta River tributary to the Klamath River

COUNTY:  Siskiyou

WHEREAS:

1. On July 18, 2012, The Nature Conservancy (Petitioner) filed eight petitions pursuant to Water Code section 1707 with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) to change the place of use and purpose of use for the Shasta River watershed water rights described in this Order and in Attachment 1 to this Order. Shasta River water rights have been adjudicated and are described in Shasta River Decree No. 7035 (Decree). Diversions pursuant to the Decree are managed by the Scott Valley and Shasta Valley Watermaster District (Watermaster). This Order affects the following Decree diversion numbers: 167, 168, 169, 170, 171, 172, 241, 243, 244, 245, 246, 247, 248.

2. For the purposes of this Order, the water rights subject to this Order are collectively described as Petitioner’s Rights. Each right is further described below and in Attachment 1 to this Order:

   a. J000014. Petitioner owns Hole in the Ground Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 233) at Points of Diversion (POD) 167, 168, 169, 170, 171 and 172 (aka Louie Brothers Ditches Nos. 1 to 6). (Decree at pp. 118-119.)

   b. J000015. Petitioner owns Big Springs Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 234) at POD 241 (aka the Louie-Rose Ditch). (Decree at pp. 119-120.)

   c. J000016. Petitioner owns Little Springs Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 235) at POD 243 (aka the Louie Little Spring Dennis Ditch). (Decree at pp.120-121.)
d. J000017. Petitioner owns Little Springs Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 236) at POD 244 (aka the Louie Little Spring Middle South Ditch). (Decree at p.121.)

e. J000018. Petitioner owns Little Springs Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 237) at POD 245 (aka the Louie Little Spring North Ditch). (Decree at p.121.)

f. J000019. Petitioner owns Little Springs Creek water rights originally granted to John Louie, Manuel Louie and Frank Louie (Paragraph No. 238) at POD 246 (aka the Louie Little Spring Simonds Ditch). (Decree at p.122.)

g. J000020. Petitioner owns Shasta River water rights originally granted to Frank H. Mills (Paragraph No. 264) at POD 247 (aka the Buscombe Pumping Plant). (Decree at p.134.)

h. J000021. Petitioner owns Shasta River water rights originally granted to Angelo Salvadori (Paragraph No. 331) at POD 248 (aka the Dunlap Ditch). (Decree at pp.166-167.)

3. The petitions propose to add fish and wildlife preservation and enhancement as an authorized beneficial use for the Petitioner’s Rights and add portions of Hole in the Ground Creek, Little Springs Creek, Big Springs Creek, and the Shasta River to the authorized place of use described in Attachment 1 to this Order.

4. Elevated water temperatures and low dissolved oxygen levels in the Shasta River watershed have resulted in the impairment of designated beneficial uses of water and the non-attainment of water quality objectives, primarily associated with cold water fish. This includes the migration, spawning, and early development of cold water fish such as coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*O. tshawytscha*), and steelhead trout (*O. mykiss*). The coho salmon population in the Shasta River watershed is listed as threatened under the federal Endangered Species Act and the California Endangered Species Act.

5. Water Code section 1707 authorizes the use of the change petition provisions of Water Code section 1700 et seq. to add the purposes of preserving or enhancing wetland habitat, fish and wildlife resources, or recreation in, or on, the water. All water rights at issue in the subject petitions are pre-1914 appropriative rights. Therefore, Petitioner is not required to obtain State Water Board approval to change the place of use, purpose of use or point of diversion for its adjudicated water rights predating the Water Commission Act (1914) (Wat. Code, § 1706); however, Petitioner submitted the petition in the interest of ensuring that the changes in its water rights are adequately documented and enforceable.

6. Before approving a petition submitted pursuant to Water Code section 1700, the State Water Board must find that the proposed change will neither in effect initiate a new right nor injure any other legal user of water. (Cal. Code Regs., tit. 23, § 791.) Under Water Code section 1707, the State Water Board must find that the proposed change will not increase the amount of water the person is entitled to use, will not unreasonably affect any legal user of water, and otherwise meets the requirements of the Water Code. (Wat. Code, § 1707.)

7. To support a finding that the proposed change will not initiate a new right, the State Water Board must determine that: (1) the right was properly established in accordance with the law; (2) recent beneficial use of the water subject to the right has occurred; and, (3) there is evidence that continuous beneficial use of the water has occurred since the right was established. Petitioner’s Rights were properly established in the Decree. Petitioner has provided a declaration from Ira Alexander, who is employed by the California Department of Water Resources, and performed
Watermaster duties predominantly on the Shasta River from 2007 to 2011. The contents of the declaration provide evidence of recent beneficial use of the water subject to the Petitioner’s Rights. Additionally, historic Watermaster District records that are publicly available provide evidence of continuous beneficial use since the Petitioner’s Rights were established.

8. Petitioner intends to continue to divert water to irrigate pasture as a beneficial use. In certain circumstances, diversion of water for irrigation will be reduced during some or all of the irrigation season leaving the water instream to be applied to beneficial use for the purpose of fish and wildlife preservation and enhancement in Hole in the Ground Creek, Little Springs Creek, Big Springs Creek, and the Shasta River. Dedicating water as requested by the petition is consistent with the Decree because the project: (1) would be operated in accordance with water rights recognized in the Decree; (2) will be subject to any seasonal diversion limits established in the Decree; and (3) does not change the priorities of rights established in the Decree.

9. To avoid injury to other legal water users, the water that may be dedicated for instream purposes must not exceed the consumptive amount used in the past. Petitioner has provided documentation to quantify the amount of water that, as a proportion of the total amount authorized for diversion in the Decree, is consumptively used and would otherwise have been consumptively used during periods when Petitioner reduces diversions. The table below is a summary of the amounts of water that would have been consumptively used including consideration of transportation losses which were considered negligible to the point of measurement. When Petitioner exercises the option to use water for instream beneficial uses, Petitioner proposes to dedicate up to 18.11 cfs for instream flow. The amounts shown below are based on a dedicated diversion amount of 18.11 cfs and shall remain instream and shall not be later recovered under any appropriative water right.

<table>
<thead>
<tr>
<th>Water Right Record</th>
<th>Point(s) of Diversion</th>
<th>Decreed Rate</th>
<th>Dedicated Rate by Month</th>
<th>Quantity (cubic-feet per second)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J000014</td>
<td>167-172</td>
<td>1.50</td>
<td>Apr: 0.05</td>
<td>18.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May: 0.40</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>June: 0.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July: 0.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August: 0.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>September: 0.39</td>
<td></td>
</tr>
<tr>
<td>J000015</td>
<td>241</td>
<td>6.71</td>
<td>Apr: 0.26</td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May: 1.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>June: 2.41</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July: 2.88</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August: 2.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>September: 1.74</td>
<td></td>
</tr>
<tr>
<td>J000016, J000017, J000018, J000019</td>
<td>243-246</td>
<td>7.60</td>
<td>Apr: 0.25</td>
<td>8.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May: 1.97</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>June: 2.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July: 3.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August: 2.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>September: 2.00</td>
<td></td>
</tr>
<tr>
<td>J000020, J000021</td>
<td>247-248</td>
<td>2.30</td>
<td>Apr: 0.11</td>
<td>4.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May: 0.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>June: 1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July: 1.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August: 1.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>September: 0.72</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18.11</strong></td>
<td>Apr: <strong>0.67</strong></td>
<td><strong>6.72</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>May: <strong>4.90</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>June: <strong>6.72</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>July: <strong>8.02</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>August: <strong>6.95</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>September: <strong>4.85</strong></td>
<td></td>
</tr>
</tbody>
</table>

*As explained in Attachment 2, only 6.71 cubic feet per second is available for dedication.

*Rate as described in the Decree, combined where necessary to reflect current operations.

1 The petition adds fish and wildlife preservation and enhancement as an authorized beneficial use but does not remove any other authorized uses or reduce the amount of water that may be diverted for those uses. Thus, approval of the petition does not, in and of itself, operate to dedicate any water to the environment; the dedication occurs when Petitioner exercises the option, as authorized by this Order, of using water for instream beneficial uses instead of diverting and using that amount of water for other uses within the authorized place of use. (See condition 2 of this Order.) Neither approval of the petition nor Petitioner’s later dedication of water for instream flow requires the Petitioner to continue to apply a specific amount of water to instream use in the future.
10. Decisions about whether or when diversions will be reduced will be made by the Petitioner and the California Department of Fish and Wildlife and in communication with the Watermaster, based on the water rights’ potential to provide an instream beneficial use depending on natural flow conditions, water temperatures, biological needs of fish and wildlife and other relevant considerations.

11. For any water released for the purpose of fish and wildlife enhancement and preservation within the instream place of use as requested by the petition, Petitioner has requested that such water be in addition to water that is required, if any, to be used for instream purposes to satisfy any applicable federal, state, or local regulatory requirements governing water quantity, water quality, instream flows, fish and wildlife, wetlands, recreation, and other instream beneficial uses. As of the date of this Order, the Shasta River is not subject to any mandatory watershed-wide instream flow requirements.

12. On November 8, 2012, the State Water Board provided public notice of the petition. The original notice period ended on December 10, 2012, and was extended to March 11, 2013. Protests were received from Rice Livestock, Emmerson Investments Inc., Siskiyou County Flood Control and Water Conservation District, Grenada Irrigation District, the Watermaster, and Siskiyou County Water Users Association.

13. The protest issues and responses can be summarized into the following categories:

a. **Injury to Other Legal Users of Water.** As explained above, granting the change petition will not injure any other legal users of water. Petitioner has provided documentation to quantify the amount of water that, as a proportion of the total amount authorized under the Petitioner’s Rights, is consumptively used and would otherwise have been consumptively used during periods when Petitioner reduces diversions.

b. **Uncertainty Regarding Measurement Location.** Petitioner has agreed that the Montague-Grenada weir, located at North 2,506,411 feet and East 6,415,051 feet by California Coordinate System 1983, Zone 1, will be used as the compliance monitoring point for the purposes of measuring the quantity of water beneficially used for instream purposes.

c. **Potential Watermaster Cost Increases.** Petitioner has agreed to assume responsibility for any costs incurred by the Watermaster associated with implementing the subject instream flows that are above and beyond normal reasonable costs associated with monitoring and implementing the Decree’s adjudicated water rights.

d. **Uncertainty Regarding Amounts Proposed for Dedication.** Petitioner seeks the ability to dedicate the full face value of the right. However, as described in item a. above and finding 8, Petitioner proposes that only the amount of water that has been consumptively used will not be available for diversion by appropriative water right holders.

e. **Effects of Fallowing on Soil Moisture Recharge.** Approval of the proposed change will not require the Petitioner to forego diversion and cease irrigation, and the possession of a right to divert water does not require the diversion of water. Absent the Petitioner’s proposed change, the Petitioner has the ability to forego and reinstitute the diversion of water at any time during the irrigation season.

f. **Big Springs Right (J000015) Wasting Water Provision.** Paragraph 234 of the Decree refers to the Big Springs Right (J000015) and contains a provision specifying that when water is not required for irrigation, that water may not be “wasted” down Big Springs Creek but
rather remain in Big Springs for use by other appropriators. (Decree at p.120.) When fish and wildlife preservation and enhancement is added as a lawful beneficial purpose of use to the water right, allowing water to remain in the stream for such beneficial use would not constitute waste and therefore would be consistent with this provision of the Decree.

g. **State Water Board Authority.** The State Water Board exercises concurrent jurisdiction with the courts in adjudicated basins. Water Code section 2819 requires that any change authorized by the State Water Board in a statutorily adjudicated water right pursuant to Chapter 10 (commencing with section 1700), Part 2, Division 2 shall be made the subject of a supplemental decree. The Siskiyou County Superior Court will be notified of the issuance of this Order and will be requested to issue a Supplemental Decree for the Petitioners’ decreed water rights in accordance with this Order.

14. By letter dated March 29, 2013, the Division provided to the Petitioner and protestants a summary of the protest timelines and activities that each party is responsible for completing. Pursuant to Water Code section 1703.5, the Division’s letter included a request for the Petitioner and protestants to provide a letter to the Division by September 7, 2013 that advises whether the protest is resolved, the steps that have been taken to address the protest, and a schedule for continued protest negotiations if the protest remains unresolved.

15. Petitioner has developed, in coordination with the Watermaster and in consultation with the other protestants, a compliance plan that describes how any dedication of water to instream resources will be implemented and monitored. The Division has approved the compliance plan, which is included as Attachment 2 to this Order. The compliance plan contains procedures for the Division, the Petitioner or the protestants to request a change to the compliance plan.

16. By letter dated September 6, 2013, in compliance with finding 14 above, Petitioner advised the State Water Board of Petitioner’s efforts to resolve any protests.

17. By letter dated October 18, 2013, the Division provided a draft order and compliance plan for consideration by the protestants. The Division letter provided that each protest (except for the Siskiyou County Water Users Association protest) was subject to abandonment unless the protestant responded to the letter within the time provided. In response to the October 18, 2013 letter, Emmerson Investments Inc., the Siskiyou County Flood Control and Water Conservation District, and the Watermaster all requested to conditionally withdraw their protest subject to the conditions included in the draft order and compliance plan. Rice Livestock and Grenada Irrigation District did not respond to the letter within the time provided and are therefore dismissed due to abandonment. (Cal. Code Regs., tit. 23, § 750.)

18. The protest filed by the Siskiyou County Water Users Association (Association) on March 11, 2013 was based on the following assertions: (1) the State Water Board lacks the authority to approve the changes requested in the petitions; (2) paragraph 234 of the Decree contains a provision that prevents the “wasting” of water in Big Springs Creek, and dedication of water in the manner presented in the petitions will result in “wasting” of water; and (3) injury to other legal users of water. Issues (1) and (2) are addressed in finding 13 above. California Code of Regulations, title 23, section 749 provides that a protest issue may be rejected if it fails to raise a valid ground for protest. These protest issues do not raise a valid ground for protest and are therefore rejected.

---

2 Substantive correspondence available in the file indicated that the Siskiyou County Water Users Association was not likely to withdraw its protest or allow its protest to be abandoned.
19. By letter dated September 16, 2013 and addressed to the Siskiyou County Flood Control and Water Conservation District, with copy sent to the State Water Board, the Association commented on Petitioner’s September 6, 2013 protest response letter. The Association disputed Petitioner’s response regarding the issue of controlling Big Springs flow. This assertion was not raised in the Association’s protest; rather, it was raised in Grenada Irrigation District’s protest, which has been deemed abandoned. To the extent this assertion relates to (3) injury to other legal water users, the Association has not submitted, in compliance with the Division’s request in finding 14 above, any evidence that disputes the evidence of historic consumptive use of Petitioner’s rights. This Order only allows Petitioner to dedicate to instream beneficial uses the amount it consumptively used in the past, and therefore the Order does not enlarge the Petitioner’s existing, legal use of water and it is shown with certainty that other legal water uses cannot be injured. Accordingly, to the extent the Association’s September 16, 2013 letter may be deemed to raise additional protest issues, this issue is canceled for failure to provide information requested by the State Water Board. (Water Code, § 1703.6, subd. (d).)

20. Association also asserted that Petitioner’s Rights are subject to the Klamath River Basin Compact (Wat. Code, § 5901 et seq.). The Klamath River Basin Compact provides a process for any person seeking to acquire any unappropriated water after its effective date. (Compact Art. III (B).) The Compact became effective on September 11, 1957 and explicitly recognizes vested rights under the laws of the state in which the use or diversion is made. Further, the Compact does not modify, amend or supersede California water rights laws or the State Water Board’s jurisdiction to regulate California water rights. Accordingly, to the extent the Association’s September 16, 2013 letter may be deemed to raise additional protest issues, this issue fails to state a valid ground of protest and therefore is rejected. (Cal. Code Regs., tit. 23, § 749.)

21. Petitioner has complied with the statutory requirements for requesting modification of its Rights. For the reasons stated above, the Division finds that: (1) the petition for change will not operate to the injury of any legal user of the water involved; (2) good cause for such change has been shown; and, (3) the petition does not constitute the initiation of a new right.

22. The project is exempt from the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) (CEQA) under categorical exemptions for minor alterations to land and agency actions for protection of natural resources or the environment (Cal. Code Regs., tit. 14, §§ 15301, 15304, 15307, & 15308). The project meets the exemption for existing facilities (Cal. Code Regs., tit. 14, § 15301) because the change involves negligible or no expansion of use beyond what existed at the time the Division approved the change. The approved changes could all be exercised absent the approval except that the approval provides for enforcement of water remaining instream as against other diverters. Under the existing right, water need not be diverted for irrigation use and may be left instream for a given season (less than five years of nonuse). The approval does not expand any existing use; it quantifies the consumptive use portion of the right, which is less that the full entitlement of water, and is careful in only enforcing the instream dedication to that extent. In addition, the project meets the exemption for minor alterations to land (Cal. Code Regs., tit. 14, § 15304), which consists of “minor public or private alterations in the condition of land, water, and/or vegetation.” (Id., italics added.) While the area is not an "officially designated wildlife management area" or "fish production facility" under the example listed in subdivision (d) of the regulation, it will "result in improvement of habitat for fish and wildlife resources or greater fish production." (Id.) The list of examples demonstrates the types of projects that fit this exemption, and the project is very similar to one of the examples. The project also meets the exemptions for actions by regulatory agencies for the protection of natural resources and the environment (Cal. Code Regs., tit. 14, §§ 15307 & 15308). These exemptions apply to actions authorized under state law to assure the "maintenance, restoration, enhancement, or protection" natural resources and the environment. The very purpose of Water Code section 1707 is for "preserving or enhancing wetlands habitat, fish and wildlife resources" in
the water. (Wat. Code, § 1707.) The project does not involve construction activities or relaxation of any standard allowing environmental degradation. Finally, this project is exempt from CEQA because it can be seen with certainty that there is no possibility that the project will have a significant effect on the environment. (Cal. Code Regs., tit. 14, § 15061, subd. (b)(3).) The Division will file a Notice of Exemption in accordance with the California Code of Regulations, title 14, section 15062 after issuance of this Order.

23. In addition to any obligation the State Water Board may have under CEQA, the State Water Board has an independent obligation to consider the effect of the proposed change on public trust resources and to protect those resources where feasible. (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419 [189 Cal.Rptr. 346, 658 P.2d 709].) There is no evidence that the dedication of water for instream beneficial uses will have any adverse impacts on public trust resources.

24. Pursuant to Resolution No. 2012-0029, the State Water Board has delegated authority to the Deputy Director, and authorized redelegation to the Assistant Deputy Director, to act on change petitions and take related actions to comply with the California Environmental Quality Act.

NOW, THEREFORE, IT IS ORDERED:

1. The purpose of use for Petitioner’s Rights is modified to include fish and wildlife preservation and enhancement.

2. The place of use for Petitioner’s Rights for the purpose of fish and wildlife preservation and enhancement is modified to include portions of Hole in the Ground Creek, Little Springs Creek, Big Springs Creek and the Shasta River as described in Attachment 1 to this Order.

3. Based on a dedicated instream diversion amount of 18.11 cfs, the quantity of water that would have otherwise been consumptively used and may be beneficially used for instream purposes in each month under the Petitioner’s Rights is provided in finding 9 above. In communication with the Watermaster, the Petitioner may exercise the option to forego diversion and beneficially use an amount of water for instream flow resources not to exceed the amounts shown below. When exercised, the amounts shown in finding 9 above that are used for instream flow resources shall not be later recovered under any appropriative water right.

4. Petitioner shall be responsible for any costs incurred by the Watermaster associated with implementing the subject instream flows that are above and beyond normal reasonable costs associated with monitoring and implementing the Decree’s adjudicated water rights.

5. No party, other than the Petitioner, shall be required to install, replace or modify any existing diversion works or measuring devices to facilitate the dedication of instream flows pursuant to this Order.

6. No water shall be dedicated to instream use pursuant to this Order unless Petitioner is operating, satisfactory to the Deputy Director for Water Rights, in accordance with the compliance plan included as Attachment 2 to this Order.
7. Petitioner shall install and maintain devices, as described in Table 4 of the compliance plan included as Attachment 2 to this Order, to measure the amount of water diverted for beneficial use under Petitioner’s Rights (Wat. Code, §§ 1605, 5100 et seq.). Petitioner shall coordinate with the Watermaster to meet this requirement.

8. The compliance monitoring point for the purposes of measuring the quantity of water beneficially used for instream purposes shall be the Montague Grenada weir at North 2,506,411 feet and East 6,415,051 feet by California Coordinate System 1983, Zone 1, or in accordance with the procedure specified in the compliance plan included in Attachment 2 to this Order upon written request to, and approval by the Deputy Director for Water Rights.

9. Petitioner shall maintain records of the amount of water used including: (a) the quantity of water diverted for consumptive use; (b) the quantity of water beneficially used for instream flow resources pursuant to this Order; and, (c) the total quantity of water diverted for consumptive use and/or beneficially used for instream flow resources.

10. Petitioner shall satisfy the reporting requirements of Water Code section 5100 et seq. Reporting by the Watermaster pursuant to Water Code section 5101 shall satisfy Petitioner’s obligation to submit such information to the State Water Board.

11. The State Water Board may supervise the diversion and use of water under this Order for the protection of legal users of water and instream beneficial uses and for compliance with the conditions. Petitioner shall allow representatives of the State Water Board and the Watermaster reasonable access to the project works to determine compliance with the terms of this Order.

12. Any water that is otherwise available for diversion that is dedicated to instream flow resources pursuant to this Order shall not be credited by any state or local agencies towards compliance with any regulatory requirements governing water quantity, water quality, instream flows, fish and wildlife, wetlands, recreation, and other instream beneficial uses. A federal agency shall comply with this requirement to the extent required by federal law or to the extent it chooses to comply.

13. This Order does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 et seq.) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 et seq.). If a "take" will result from any act authorized under this water right, the water right holder shall obtain authorization for an incidental take prior to construction or operation of the project. The water right holder shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this Order.
Attachment 1 – Summary of Petitioner’s Rights

Adjudicated Water Right J000014

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Points of Diversion 167, 168, 169, 170, 171, and 172 from Hole in the Ground Creek, a tributary to the Shasta River. The Decree authorizes direct diversion of 1.5 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 67.2 acres. The authorized points of diversion on Hole in the Ground Creek (PODs 167-172) are listed on pages 118 and 119 of the Decree. The point of diversion currently exercised (POD 168) is located approximately 1,430 feet from the S quarter corner of Section 9 on a bearing of approximately N88° 30'E, being within SE ¼ of SE ¼ of Section 9, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000014 includes portions of Hole in the Ground Creek and the Shasta River from POD 168 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 168 at North 2,459,391 feet and East 6,445,691 feet by California Coordinate System 1983, Zone 1, being within SE ¼ of SW ¼ of Section 9, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

Adjudicated Water Right J000015

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 241 from Big Springs Creek, a tributary to the Shasta River. The Decree authorizes direct diversion of 10.0 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 451.9 acres. The authorized points of diversion for the Big Springs Right are listed on pages 119 and 120 of the Decree. The point of diversion currently exercised (POD 241) is located approximately 1,420 feet from the S quarter corner of Section 3 on a bearing of approximately N0° 30'W, being within NE ¼ of SW ¼ of Section 3, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Rights J000015 includes portions of Big Springs Creek and the Shasta River from POD 241 to the location of the United States Geological Survey (USGS) Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 241 at North 2,466,096 feet and East 6,449,691 feet by California Coordinate System 1983, Zone 1, being within SE ¼ of SW ¼ of Section 3, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

Adjudicated Water Right J000016

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 243 from Little Springs Creek, a tributary to Big Springs Creek thence the Shasta River. The Decree authorizes direct diversion of 4 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 198.5 acres. The authorized point of diversion on Little Springs Creek (POD 243; listed on pages 120 and 121 of the Decree) is located approximately 1,240 feet from the NW corner of Section 10 on a bearing of approximately S2° 30'E, being within NW ¼ of NW ¼ of Section 10, T43N, R5W, MDB&M.

---

1 Petitioner holds the right to divert 10 cfs from Diversion #241, subject to Irene Busk’s reservation of the right to divert that quantity of water necessary for the reasonable and beneficial uses, on her retained lands, consistent with the limitations and obligations of a conservation easement held by Petitioner. Petitioner seeks to dedicate up to 6.71 cfs of the total 10.0 cfs to instream uses for the purpose of preserving and enhancing fish and wildlife resources.
2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000016 includes portions of Little Springs Creek, Big Springs Creek, and the Shasta River from POD 243 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 243 at North 2,463,591 feet and East 6,447,068 feet by California Coordinate System 1983, Zone 1, being within NW ¼ of NW ¼ of Section 10, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

Adjudicated Water Right J000017

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 244 from Little Springs Creek, a tributary to Big Springs Creek thence the Shasta River. The Decree authorizes direct diversion of 0.5 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 16.7 acres. The authorized point of diversion on Little Springs Creek (POD 244; listed on page 121 of the Decree) is located approximately 2,860 feet from the south quarter corner of Section 9 on a bearing of approximately N20° 30'E, being within NW ¼ of SE ¼ of Section 9, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000017 includes portions of Little Springs Creek, Big Springs Creek, and the Shasta River from POD 244 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 244 at North 2,462,090 feet and East 6,445,305 feet by California Coordinate System 1983, Zone 1, being within SW ¼ of NE ¼ of Section 9, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

Adjudicated Water Right J000018

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 245 from Little Springs Creek, a tributary to Big Springs Creek thence the Shasta River. The Decree authorizes direct diversion of 1.15 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 49.3 acres. The authorized point of diversion on Little Springs Creek (POD 245; listed on page 121 of the Decree) is located approximately 3,170 feet from the northeast corner of Section 9 on a bearing of approximately S31° 30'W, being within SW ¼ of NE ¼ of Section 9, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000018 includes portions of Little Springs Creek, Big Springs Creek, and the Shasta River from POD 245 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 245 at North 2,462,176 feet and East 6,445,318 feet by California Coordinate System 1983, Zone 1, being within SW ¼ of NE ¼ of Section 9, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

Adjudicated Water Right J000019

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 246 from Little Springs Creek, a tributary to Big Springs Creek thence the Shasta River. The Decree authorizes direct diversion of 1.95 cubic feet per second (cfs) between April 1 and October 1 of each year for the purpose of irrigation of 76.8 acres. The authorized point of diversion on Little Springs Creek (POD 246; listed on page 122 of the Decree) is located approximately 3,370 feet from the northeast corner of Section 9 on a bearing of approximately S48° 00’W, being within SW ¼ of NE ¼ of Section 9, T43N, R5W, MDB&M.
2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000019 includes portions of Little Springs Creek, Big Springs Creek and the Shasta River from POD 246 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca). The upstream limit is POD 246 at North 2,462,610 feet and East 6,444,533 feet by California Coordinate System 1983, Zone 1, being within SW ¼ of NE ¼ of Section 9, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

**Adjudicated Water Right J000020**

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 247 from the Shasta River. The Decree authorizes direct diversion of 1.2 cubic feet per second (cfs) between March 1 and November 1 of each year for the purpose of irrigation of 60 acres. The authorized point of diversion on the Shasta River (POD 247; listed on page 134 of the Decree) is located approximately 1,600 feet from the NW corner of Section 5 on a bearing of approximately S60° 30'E, being within NE ¼ of NW ¼ of Section 5, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000020 includes portions of the Shasta River from POD 247 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca) as an authorized place of use. The upstream limit is POD 247 at North 2,469,273 feet and East 6,437,934 feet by California Coordinate System 1983, Zone 1, being within NE ¼ of NW ¼ of Section 5, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.

**Adjudicated Water Right J000021**

1. **Current Place of Use.** Shasta River Decree No. 7035 (Decree) authorizes The Nature Conservancy to divert water at Point of Diversion 248 from the Shasta River. The Decree authorizes: (1) direct diversion of 1.10 cubic feet per second (cfs) between April 1 and October 1 of each year for the purposes of domestic, stockwatering and irrigation of 63.8 acres; and, (2) direct diversion of 0.25 cfs between October 1 of each year and April 1 of the succeeding year for the purposes of domestic and stockwatering. The authorized point of diversion on the Shasta River (POD 248) is listed on page 167 of the Decree. The point of diversion currently exercised (POD 247; listed on page 134 of the Decree) is located approximately 1,600 feet from the NW corner of Section 5 on a bearing of approximately S60° 30'E, being within NE ¼ of NW ¼ of Section 5, T43N, R5W, MDB&M.

2. **Proposed Additional Place of Use.** The place of use for Adjudicated Water Right J000021 includes portions of the Shasta River from POD 247 to the location of the United States Geological Survey Gage No. 11517500 (Shasta River near Yreka, Ca) as an authorized place of use. The upstream limit is POD 247 at North 2,469,250 feet and East 6,437,934 feet by California Coordinate System 1983, Zone 1, being within NE ¼ of NW ¼ of Section 5, T43N, R5W, MDB&M. The downstream limit is the USGS Gage No. 11517500 (Shasta River near Yreka, Ca) at North 2,548,013 feet and East 6,399,633 feet, Zone 1, being within SE ¼ of NE ¼ of Section 24, T46N, R7W, MDB&M.
Attachment 2 – Compliance Plan

Compliance Plan for
The Nature Conservancy’s 1707 Instream Petitions

Introduction

In 2005 and 2009 The Nature Conservancy (TNC) purchased two adjacent ranches along the Shasta River with water rights governed by the Shasta River Adjudication and Decree (see Table 1). These ranches were purchased because of their location in the Upper Shasta River watershed, an area with important salmon spawning and rearing habitat and water rights to important cold water sources. These water rights originate from four different bodies of water: the Shasta River, Big Springs Creek, Hole in the Ground Creek and Little Springs Creek. In 2012, TNC petitioned the State Water Resources Control Board to add fish and wildlife as a beneficial use to these water rights. These water rights are all administered as part of the Scott and Shasta Watermaster District (Watermaster)¹. See Figure 1 for diversion locations.

Table 1. TNC Water Rights According to Shasta River Adjudication 1932--Decree No. 7035

<table>
<thead>
<tr>
<th>Diversion Number(s)</th>
<th>Water Source</th>
<th>Total Water Right (cfs)</th>
<th>Priority Date</th>
<th>Paragraph in Decree</th>
</tr>
</thead>
<tbody>
<tr>
<td>167, 168, 169, 170, 171, 172</td>
<td>Hole In the Ground Creek</td>
<td>1.5</td>
<td>4/1/1893, 2/15/1898, 4/1/1898, 4/1/1900</td>
<td>233</td>
</tr>
<tr>
<td>241</td>
<td>Big Springs Creek</td>
<td>6.71</td>
<td>4/1/1872</td>
<td>234</td>
</tr>
<tr>
<td>243</td>
<td></td>
<td>4</td>
<td>6/15/1891</td>
<td>235</td>
</tr>
<tr>
<td>244</td>
<td>Little Springs Creek</td>
<td>0.5</td>
<td>4/1/1893</td>
<td>236</td>
</tr>
<tr>
<td>245</td>
<td></td>
<td>1.15</td>
<td>4/11/1892</td>
<td>237</td>
</tr>
<tr>
<td>246</td>
<td></td>
<td>1.95</td>
<td>4/1/1900</td>
<td>238</td>
</tr>
<tr>
<td>247, 248</td>
<td>Shasta River</td>
<td>1.2, 1.1</td>
<td>3/18/1914, 3/21/1899</td>
<td>264, 331</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td><strong>18.11 cfs</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Nature Conservancy plans to occasionally forego diversion on some or all of the above-listed water rights during some portion of the irrigation season, depending upon the needs of fish and wildlife. While the petitions request that the entire water right be subject to the fish and wildlife benefit, only the consumed portion of the water rights will be protected downstream beyond other water users (see Table 3). The consumed portion of these water rights is the amount of water that would otherwise have been consumptively used by plants and the environment if the water were to be used for irrigation. This is the amount of water that would be protected downstream from diversion by other lower priority water diverters. The use of these water rights for fish and wildlife benefit should not result in any change to water availability for downstream users compared to the water availability to

¹ On December 22, 2011, the Siskiyou County Superior Court granted the petition of the Scott and Shasta Watermaster District (Watermaster) to replace the Department of Water Resources. The Watermaster began to provide services on or about February 1, 2012.
Figure 1.

**Water Rights (cfs):**
- Little Springs Creek: 7.6 cfs
- Big Springs Creek: 6.71 cfs
- Hole in the Ground Creek: 1.5 cfs
- Shasta River: 2.3 cfs

**Legend**
- Rivers and Creeks
- TNC property boundary
- Main Ditches

Map Created By: Ada Fowler, Mt Shasta, CA
Map Projection: NAD83 UTM Zone 10N
Aerial Imagery: NAIP 2010
SBSR Diversions, January 2013
downstream users in the situation where these rights are used for irrigation.

If the petitions are approved, water withdrawals from these diversions, in certain circumstances, could be reduced during some or all of the irrigation season for the purpose of preserving and enhancing fish and wildlife resources in Big Springs Creek and the Shasta River. Decisions about whether and when diversions will be reduced will be made by TNC and the California Department of Fish and Wildlife in communication with the Watermaster and will be based on natural flow conditions, water temperatures, biological needs of fish and wildlife and other relevant considerations.

**Purpose of 1707 Dedication**

With these 1707 dedications, the water rights owner would like to continue present cattle operation while, at times, choosing to leave these water rights instream for the benefit of aquatic species, specifically coho and Chinook salmon. At this time, based on the best available science, we believe there are three general times and locations where these water rights could have direct benefits to these aquatic species. The extent of the downstream benefits will depend upon the water year type (wet, dry, critically dry, etc.), the time of year, the current meteorological conditions, and the presence or absence of these fish in the system. The most likely scenarios for when these water rights would be left instream are summarized in Table 2 below.

**Table 2. Summary of Current Likely Scenarios for Instream Water Use of TNC Water Rights**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Target Species</th>
<th>Life Stage targeted for benefit</th>
<th>Objective of potential instream use</th>
<th>Monitoring Location</th>
<th>General timing of potential benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>Coho</td>
<td>Over summer rearing</td>
<td>Improve water temperatures in Upper Shasta River</td>
<td>Point of Diversion</td>
<td>April through August</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>Fall Chinook</td>
<td>Adult spawners</td>
<td>Improve water quality (flow amount?) in Shasta River Canyon</td>
<td>Montague/Grenada Weir (~RM 15.5)</td>
<td>Late August through September 30th</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>Coho and Fall Chinook</td>
<td>Out-migrating smolts</td>
<td>Improve water temperature and increase flow volume for out-migrating smolts</td>
<td>Montague/Grenada Weir (~RM 15.5)</td>
<td>April</td>
</tr>
</tbody>
</table>

---

2 This information is based on best available science and understanding of the Shasta River salmon use as of 2013.
**Consumed Water**

To avoid injury to other legal water users with this request for instream dedication, only the “consumed” portion of these water rights will be bypassed downstream for fish and wildlife. In 2011 TNC hired Davids Engineering to calculate the “consumptive use” of TNC owned water rights. "Consumptive use" is the portion of the water right that is evaporated, transpired by plants, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment and therefore not returned to the system for use by other water users. This consumptive use analysis considered the soil types of the area, the number of irrigated acres, the crop types, grazing intensity, the water delivery method and the local weather conditions to determine average amount of water taken up by plants and the environment per month. For complete details of this analysis, see Davids Engineering Report *Shasta Big Springs Ranch and Nelson Ranch Crop Evapotranspiration Estimates DE Project # 1088.07 (available upon request to ahoss@tnc.org)*.

**Table 3. Summary of “Consumed Water” of TNC owned water rights in the Shasta River Watershed.**

<table>
<thead>
<tr>
<th>Diversion Number Water Source</th>
<th>Decreed Acres</th>
<th>Total Water Right Flow&lt;sup&gt;4&lt;/sup&gt;, CFS</th>
<th>Calculation of Consumed Water (CFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Apr</td>
<td>May</td>
</tr>
<tr>
<td>Hole in the Ground Creek</td>
<td>67.2</td>
<td>0.05</td>
<td>.4</td>
</tr>
<tr>
<td>% of water right consumed</td>
<td></td>
<td>3%</td>
<td>26%</td>
</tr>
<tr>
<td>Big Springs Creek</td>
<td>303.2</td>
<td>.26</td>
<td>1.79</td>
</tr>
<tr>
<td>% of water right consumed</td>
<td></td>
<td>4%</td>
<td>27%</td>
</tr>
<tr>
<td>Little Springs Creek</td>
<td>341.3</td>
<td>.25</td>
<td>1.97</td>
</tr>
<tr>
<td>% of water right consumed</td>
<td></td>
<td>3%</td>
<td>26%</td>
</tr>
<tr>
<td>Shasta River</td>
<td>123.8</td>
<td>.11</td>
<td>.74</td>
</tr>
<tr>
<td>% of water right consumed</td>
<td></td>
<td>5%</td>
<td>32%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>835.5</td>
<td>.67</td>
<td>4.9</td>
</tr>
<tr>
<td>% of water right consumed</td>
<td></td>
<td>4%</td>
<td>27%</td>
</tr>
</tbody>
</table>

<sup>3</sup> These numbers are averages based on flood irrigation to grow pasture grass. If crop or delivery method changes are made, ET values will change and this table will be updated.

<sup>4</sup> As described in the Shasta River Adjudication 1932-Decree No. 7035.
Table 3 summarizes the consumptive use estimates for TNC owned water rights in the Shasta River Watershed for each month of the irrigation season (April 1<sup>st</sup> through September 30<sup>th</sup>). These numbers are the amounts of water that would be expected to be bypassed beyond lower priority downstream diverters for instream beneficial uses.

**Possible Other Losses to Evapotranspiration or Seepage**
In order to determine whether or not these instream flow dedications would result in incremental water losses in the Shasta River, either to evapotranspiration or to seepage, TNC hired Watercourse Engineering to advise us on these topics. They determined that in general, the increase from an instream flow dedication from TNC water rights would have, if any, a minimal effect (i.e., tenths of a cfs) on evapotranspiration and seepage losses because the volumes under consideration for instream dedication are relatively small volumes of water and will not measurably affect stream width or depth in the Shasta River. Additionally, the memo surmised that the Shasta River between the point of diversions and the monitoring location on the Shasta River is a gaining reach of river and therefore, additional transportation or seepage losses would not be expected. *Copies of the memos from Watercourse Engineering are on file with the Division of Water Rights or available upon request to ahoss@tnc.org.*

**Communication and Coordination with the Watermaster**
TNC will work to help facilitate a smooth and uncomplicated process for use of these water rights for instream benefit. In order to minimize the time required of the Watermaster to oversee the instream use of these water rights, the following communication protocol will be utilized when these water rights are to be used for instream benefit.

1. Via phone and email, TNC will provide a minimum of 48-hour notice to the Watermaster when these rights are going to be used for instream benefit.
2. As part of this communication, the following information will be clearly provided in written form, via email:
   a. the water right(s) by diversion number that will be left instream<sup>5</sup>,
   b. the amounts of water from Table 3 that will be expected to be bypassed (if bypass is desired based on expected instream benefits),
   c. the period of time these water rights will be used for instream purposes, and
   d. the Scenario (1, 2 or 3—see Table 2) for the water rights left instream.

**Monitoring Plan**

*Point of Diversion Verification:*
Spot checks can be made by the Watermaster at the points of diversion (POD(s)) to confirm the water rights are being used for instream purposes and are not being diverted for irrigation. Each POD has a system for quantifying and verifying water use and a summary of the instrumentation is found below in Table 4.

---

<sup>5</sup> When using water instream, we will only be using the full water rights for each body of water (Big Springs Creek, Little Springs Creek, Hole in the Ground or Shasta River).
Table 4. Measuring Diversion at each Point of Diversion

<table>
<thead>
<tr>
<th>Diversion #</th>
<th>Measurement Device</th>
<th>Access (Real-time, on-site, or data download)</th>
</tr>
</thead>
<tbody>
<tr>
<td>167-172</td>
<td>Needs measurement device; awaiting permits for construction of headgate</td>
<td>(expected installation by April 2014)</td>
</tr>
<tr>
<td>241</td>
<td>ARGO SW acoustic Doppler flow meter</td>
<td>On-site, real time read-out and logger</td>
</tr>
<tr>
<td>243</td>
<td>Portable flow meter; thermistor</td>
<td>On-site; data download</td>
</tr>
<tr>
<td>244</td>
<td>MACE acoustic Doppler flow meter</td>
<td>On-site, real time read-out and logger</td>
</tr>
<tr>
<td>245</td>
<td>MACE acoustic Doppler flow meter</td>
<td>On-site, real time read-out and logger</td>
</tr>
<tr>
<td>246</td>
<td>Portable flow meter; thermistor</td>
<td>On-site; data download</td>
</tr>
<tr>
<td>247-248</td>
<td>Dynasonics trans-pipe acoustic Doppler flow meter</td>
<td>On site, real time read-out and logger</td>
</tr>
</tbody>
</table>

These measuring stations can be used by TNC and the Watermaster to verify and summarize when these water rights were used for irrigation and when they were used for preserving and enhancing fish and wildlife resources.

**Monitoring at the New Proposed Place of Use:**

*Scenario 1 Monitoring:* A gaging station has recently been installed in the Upper Shasta River that might be useful to help measure consumed use of water rights to be left in-stream in the Upper Shasta River region. This gage is located in the newly created boulder riffle upstream of the Grenada Irrigation District diversion just downstream of TNC’s most downstream diversion on the Shasta River (247-248). It will take one or more irrigation seasons to determine the reliability of the information collected for measuring water quantities at this gage. Once this gaging system is deemed reliable by the Watermaster, it could be used to monitor these dedications under Scenario 1.

*Scenario 2 and 3 Monitoring:* In these scenarios, the downstream limit of where TNC’s water rights will have the potential to benefit aquatic resources is the USGS gage #11517000 on the Shasta River near Montague, California (located at 41° 42’ 33” N 122° 32’ 13” W) approximately ½ mile from the confluence of the Shasta River with the Klamath River. Due to the potential for “noise” in the system at this gaging station as a result of changes in flow in Yreka Creek, spring seepage, and other potential inputs and outflow, TNC and the Watermaster agree to use the USGS gage #11517000 on the Shasta River near Montague, California as the compliance monitoring point (located at 41°42’ 33” N 122° 32’ 13” W).6

In any of the three Scenarios, TNC will follow steps 1 and 2 outlined in the Communications Section above to inform the Watermaster as to the quantity of water that will be left in-stream and the amount of this water that is “consumed,” thereby the amount that TNC expects will be bypassed. Since the consumed value of water will be known, the Watermaster will add this

---

6 This gage is known locally as the Montague-Grenada Weir or the DWR Weir.
total consumed amount of the water rights TNC is leaving instream to the quantity of water normally measured at these locations to meet the current downstream diversions in the Watermaster’s service area.

Transit Time Downstream:
Because any water right left in stream will take time to move downstream, there will be a lag in the time at which water will be measured at the downstream location. Table 5 provides an estimate as to the transit time downstream of these water rights.

Table 5. Approximate Transit Time Downstream of Water Rights

<table>
<thead>
<tr>
<th>Location</th>
<th>River Mile (on Shasta River)</th>
<th>Approx. Transit time from POD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point of Diversion</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BS Creek Confluence</td>
<td>33.5</td>
<td>3 hours</td>
</tr>
<tr>
<td>Grenada Irrigation District Diversion</td>
<td>30.5</td>
<td>8 hours</td>
</tr>
<tr>
<td>Montague Grenada Gage</td>
<td>15.5</td>
<td>30 hours</td>
</tr>
</tbody>
</table>

Costs Associated with Watermastering 1707 Dedications
TNC will pay all reasonable costs incurred by the Watermaster to implement the subject instream flows in excess of the costs associated with normal Watermaster duties for these water rights when diverted for irrigation.

Normal monitoring of these diversions for irrigation usually occurs approximately 3 times per month. A visit to each TNC diversion takes the Watermaster approximately 4 hours.

If the instream dedication can be coordinated within the regular schedule of the Watermaster, then no additional costs will be associated with monitoring and measuring these flows when used for instream purposes. If, however, an instream use of water occurs outside the regular schedule of the Watermaster and requires additional monitoring above and beyond the 12 hours per month, then a fixed cost, which will include 4 hours of time plus mileage costs, will be applied to TNC’s annual Watermaster fee assessment to cover the additional costs associated with monitoring the instream dedication.

TNC and the Watermaster will agree in writing annually as to the hourly rate and mileage costs to be paid by TNC for each monitoring event that is outside the regular schedule of the Watermaster for these diversions.

Challenges to Measuring and Monitoring
TNC and the Watermaster acknowledge that it is extremely difficult to measure water with a significant degree of precision in the Shasta River watershed and that there will be more or less water delivered at some times due to these difficulties. The Watermaster’s ability to quantify
and track very specific amounts of water rights left instream for downstream benefits is complicated by a number of inputs and outputs of water in the system, including: riparian diversions, potential influences of groundwater pumping on stream flow, tailwater inputs, spring accretions and potential loss due to seepage. In implementing the results of our 1707 petitions, we anticipate that the Watermaster will take all reasonable actions to measure these water rights just as they would measure other legal water rights in the Watermaster’s service area. As stated above, we do recognize that it will be difficult to track specific quantities of water long distances downstream with a high degree of precision and that there will be more or less water delivered at some times due to these difficulties.

In the event that there is a disagreement between TNC and the Watermaster regarding the measurement and monitoring of the instream water rights, the parties will work together to try to resolve the issues and mutually agree to an amendment to the plan.

**Binding Elements—Required Components of Implementation Plan**
The following elements of this Plan have been agreed to by TNC and the Watermaster and shall be incorporated in any water right order issued to grant the 1707 petitions. The following elements of this plan may be amended only by mutual agreement between TNC and the Watermaster, and with approval by the State Water Resources Control Board.

- The only compliance monitoring point for these petitions will be the USGS gage #11517000 on the Shasta River near Montague, California (located at 41°42' 33" N 122° 32' 13" W).
- Only the consumed portion of these water rights, as described in Table 3, above, will be bypassed beyond other lower priority water rights holders.
- The Evapotranspiration quantities that will be used are those found in Table 3 of this document.
- The Watermaster costs associated with implementing the subject instream flows, above and beyond costs associated with monitoring water rights for irrigation, will be borne by TNC.
- No other user of water shall be required to install, replace, or modify any existing diversion works or measuring devices to facilitate the dedication of the subject instream flows.

Prior to final approval of any change in these binding elements, the following protestants or parties shall be given at least thirty (30) days written notice of any proposed change:

1. Emerson Investments, Inc.
2. Grenada Irrigation District
3. Montague Water Conservation District
4. Brian Rice
5. Siskiyou County Flood Control and Water Conservation District
6. Siskiyou County Water Users Association