

April 20, 2013

COMMENTS FROM THE TETRICK RANCH REGARDING SOUTH COW CREEK PORTION OF FERC PROJECT 606.

The FERC decommissioning process of the Project has been most interesting to date, but it is this SWRCB proceeding that is the important one in light of the FERC Staff's failure to deal with the rights of the water holders and the future use of water resulting from the proposed PG&E decommissioning of Project No. 66 by dismantling the entire Project water system, in its FEIS. Unfortunately, FERC's process has not produced a resolution that will allow for the continuing use and disposition of water in the South Cow Creek Project No. 606 area. Instead, FERC Staff stated in its P-606 FEIS decision: "Whether or not the Proposed Action (of decommissioning proposed by PG&E) would violate the water rights of others is a matter to be determined by the State of California, not the Commission." FEIS at 33. Instead of deferring any evaluation until the issue of adequate protection of the water right holders was addressed, the FERC Staff ignored the issue and the important issue of the "future disposition of PG&E's abandoned water rights," as unknown; and relied on its unsupported conclusion that it was "unlikely that another entity would have an opportunity to attain the abandoned water rights in the future." These critical issues affecting State water rights and uses must be addressed in this proceeding, where FERC concedes they are properly to be determined.

Thus, we look forward to the CEQA process and urge that the State of California compel PG&E and the resource agencies to do the right and lawful thing for the residents of Shasta County, and the landowners of South Cow Creek Valley. We appreciate that the California State Water Resource Control Board is the lead agency on this process and trust that the "beneficial uses" of the water from South Cow Creek will be legally and fairly considered.

As you know, the Project has been in place for over 100 years. It is important to understand the significance of the history of the Project. Before a decision is made to undo what has become a natural "part of the environment", it is vital to understand who, when, how, and why certain things were done in the first place. Below is a brief history of the South Cow Creek side of the Project. These findings are a compilation of many sources, including but not limited to the testimony of several "long-timers" from the So. Cow Creek valley such as Art Abbott, Bud Farrell and others, FERC applications c. 1927, and 1976, SWRCA records, title information, Shasta Historical Society archives, and Shasta County records.

1) Background – "Pre-Project" Condition South Cow Creek Portion of FERC PROJECT 606

- a) Long prior to Northern Light and Power constructing Project 606, "the Project", Wagoner, in 1852, settled South Cow Creek Valley and began developing and diverting 2000 miner inches (40 CFS) from South Cow Creek for irrigation of South Cow Creek Valley.
- b) Prior to the Project, Wagoner designed, built, and used an elaborate ditch system across Wagoner (now Tetrick) Ranch, starting from upper S. Cow Creek, and extending along the

hillsides of the ranch, eventually watering the east channel of South Cow Creek and Hooten Gulch. The physical evidence of these many ditches still remain today as a constant reminder of the past. (Pictures can be provided upon request.) These ditches were abandoned when Wagoner worked out a deal with Northern Light and Power to generate hydro-electric power, and thus continue watering Hooten Gulch.

2) History – Timeline Facts and Findings - South Cow Creek Plant

- a) Wagoner, predecessor to the Tetrick Ranch, settled most of South Cow Creek Valley in 1852 and developed an elaborate water delivery system from South Cow Creek to Hooten Gulch. The delivery system included several diversions, flumes, and ditches that diverted and directed water from South Cow Creek to Hooten Gulch to what is now known as Diversion 73. From Diversion 73, waters then flowed into a ditch that irrigated much of the 400 irrigable acres of the South Cow Creek Valley with a ditch system.
- b) Wagoner filed a Notice of Appropriation for over 2000 miner inches in the 1880's.
- c) Wagoner sells lands in west end of South Cow Creek Valley to Hunt and Farrell (ADU) in 1890's.
- d) Wagoner makes agreement with Edward Smith of Northern Light and Power, "NLP", to sell 5 acres of land for a powerhouse in the middle of his ranch in 1907. Agreement enables NLP to develop hydroelectric plant and deliver Wagoner water to South Cow Creek Valley via Hooten Gulch, for Wagoner's beneficial "***use and enjoyment of the lands***", without expiration. (See *Indenture Wagoner-Smith dated July 20, 1907, Appendix 1*).
- e) Edward Smith, Northern NLP, filed a Notice of Appropriation in 1906 for non-consumptive water rights to be delivered to the Wagoner Place (Hooten Gulch) at the upper end of the South Cow Creek Valley. (See *Smith - Notice of Appropriation dated December 3, 1906, Appendix 2*).
- f) NLP constructed South Cow Creek dam and diversion in 1907. There was no minimum bypass developed for fish or for Wagoner senior water rights because most of Wagoner water was delivered to the South Cow powerhouse and Hooten Gulch. Only water that leaked from the dam and the ditches provided water into bypass reach through Wagoner canyon when flows in South Cow Creek were less than 40 cfs. In other words, the dam was ***terminus*** until flows in South Cow Creek were greater than 40 cfs. (See *1965 California State Water Boards Study, Page A-90, excerpt, Appendix 3*).
- g) NLP sells South Cow facility to Sacramento Valley Power, SVP, in 1908.
- h) SVP sells South Cow facility to NCP in 1912.

- i) According to PG&E and FERC records, documents between NCP, NCPC and SVP were sparse.
- j) PG&E acquires South Cow and Kilarc Power plants through a merger with NCP in 1919.
- k) PG&E files license application with FERC in 1927.
- l) PG&E claims in its application for license to FERC, it has the right to divert water citing the history of NCP, SVP and the fact that there water was appropriated in 1906-8 in the license application. (*See Smith - Notice of Appropriation 1906, Appendix 2*).

- m) PG&E in its application for license to FERC claims that prior to 1911 there was no “water commission act”. PG&E states in their Application to FERC in 1927, Exhibit E, Page 4:

“All of the water rights now possessed and used by applicant in connection with the aforesaid canals and power plants were vested and accrued long prior to the enactment of the first water commission act of the State of California. No certificate of approval, permit or license by any board or officer was required as a condition precedent to the appropriation and use of the water by the laws of the State of California prior to the enactment of the first water commission act in the year 1911.”

- n) In the 1924 Filing with FERC, PG&E states in Exhibit H, Statement of Effect of Operation on the Normal Flow of the Stream:

*“Above Cow Creek power-house, the forebay...has little or no effect on the stream flow as only minor regulation is possible. The water stored is beneficial for power and **partly for irrigation purposes** but has no value in flood control or navigation purposes.”*

- o) In both the 1927 and 1974 FERC applications, PG&E contends that documents and records from the previous owners, NLP, SVP and NCPC are sparse or nonexistent.
- p) May 1, 1936 - Wagoner quitclaims 2,000 miner inches to Abbott, Ellis, Jones and Hunt Estates Company.
- q) 1937 PG&E initiates lawsuit against upper South Cow Creek water users.
- r) 1940's -1970's - US Army Corp of Engineers (ACOE) did significant construction in South Cow Creek. They eliminated the natural braided stream beds and created a main channel that prevented the east channel from flowing continuously to Hooten Gulch.

- s) 1965 Water Board Study sites that a majority the water for Diversion 73 “consists principally of water discharged into Hooten Gulch through the South Cow Creek tailrace”. (See Appendix 3).
- t) 1969 Adjudication – includes tailrace water as “natural flow”: The 1969 Decree defines “Natural Flow” as it relates to the beneficial interests of the Tetrick Ranch and the ADU. (See 1969 Adjudication excerpt, Appendix 5).
- u) In the PG&E 1974 Application to FERC under Section IV Page 16, Section B, Fish Water Releases and Stream Operating Criteria: “There are currently **no minimum flow release requirements** at either of the two main Project diversion dams, Kilarc and South Cow Creek, for the maintenance of aquatic life.” This further verifies that PG&E was diverting the first of 40 CFS of stream flows from South Cow Creek for the benefit of both hydro and water delivery to the Wagoner Ranch/South Cow Creek Valley and that Diversion 64 was terminus.
- v) In the 1974 FERC document, Section V, Page 22, Unavoidable Adverse Environmental Effects, “The generating facilities are now **part of the environment**, and benefit the public by providing electric power.”
- w) In the 1974 FERC Application, Section V, Page 25, E. Finite Resources states “All fish are renewable as long as small populations are maintained.”
- x) 2001 PG&E pre-consultation package (Entrix) states on Page 79 - “The flow in the canal empties into the South Cow Creek Forebay. At this point, the water enters the penstock and flows to the powerhouse. The powerhouse releases water to Hooten Gulch, a tributary of South Cow Creek. Flow in Hooten Gulch provides the water supply for the Abbott Ditch. **Therefore, without flow through the powerhouse, Abbott Ditch water rights could not be met. Currently, the Licensee schedules powerhouse outages through the powerhouse based upon the Abbott Ditch water needs**”.
- y) 2005 MOU.....Pre-decision made without consulting any of the stakeholders involved. NOAA Fisheries, NMFS on their website announced an “historic early decommissioning agreement with PG&E”, (2005 MOU), and claims that “ over 40 miles of additional habitat will be open to anadromous fish that have been closed off for over 100 years”. As landowners and stakeholders who know that there is fish bypass on South Cow Creek and the barriers at Whitmore Falls and OC11, it is clear this claim is unfounded. We have yet to see the evidence for such claim and request the SWRCB to seek clarification on this claim.

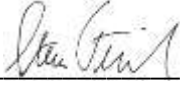
3) Situation analysis

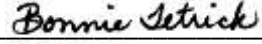
- a) PG&E's non consumptive water rights were established by earlier agreements with its predecessors. (Smith, NLP, SVP, NCPC) The Notice of Appropriation filed in 1906 by Edward Smith of NLP, that PG&E relied upon in their filings with FERC states that water is to be diverted at South Cow Creek via pipeline "to the intended point of use" to the Wagoner place. The purpose and intent of the Appropriation is clear. Wagoner settled the South Cow Creek Valley in 1852 and established his Appropriation for over 2,000 miner inches long before Edward Smith showed up. NLP developed a dam, Diversion 64, at its current location that prevented all flows up to 40 CFS from going down Wagoner Canyon and Wagoner's other points of diversions. After PG&E acquired the facilities in 1918, they claim in their two filings with FERC, 1927 and 1974, that their water rights were established by their predecessors and then set forth in the 1969 Decree. Given the fact that PG&E is in power production business and they never intended to cease high head hydroelectric operations, it was apparently never considered even in the Decree that the PG&E diversion and water delivery system to Hooten Gulch would cease. PG&E claims in its applications to FERC that all records prior to 1918 are sparse.
- b) PG&E should be denied its License Surrender Application and should not be able to abandon their water rights without an "in place" physical solution to water delivery to the Wagoner Ranch. The Wagoner Ranch transferred water rights, established ranching practices, and constructed a 100KW small hydro plant with a "conduit exemption", and other improvements in reliance and dependence upon its beneficial interests in the water flows in Hooten Gulch consistent with the 1907 Indenture, [Appendix 1](#). The ADU has irrigated its lands, have acquired lands and established improvements and their livelihood on water they own delivered by PG&E since 1907 through the South Cow Creek Powerhouse and Hooten Gulch.
- c) Costs of permitting and constructing new diversions on private lands in 2013 are much different, if not impossible, than in 1904. If Wagoner understood that PG&E could cut and run at any time, turn off the water and leave their transmission lines and wires, he would have not agreed to sell his land and would have required the utility to construct a sustainable diversion somewhere else. Additionally, the land owners that have invested in the South Cow Creek Valley have done so in reliance and dependence on the water delivery system that has been in place for over a century. It appears that the landowners of the South Cow Creek valley were misled by the public utilities and the agencies over the past 100 years and during the 1969 Adjudication process because it was never assumed that the Diversion 64 would be removed.

4) Technical Solution

- a) Both the Tetrick Ranch and the ADU have developed a proposed solution, "Technical Solution", (TS) for water delivery to Diversion 73 in the event the Project is to be decommissioned. Please see [Appendix 6](#) for detail.

b) We are requesting that the CSWRCB hold a mandatory settlement conference with the parties required for approval on or before June 1, 2013. In our view the TS is a pragmatic solution and would cost an estimated \$2.5-million to complete all phases, including right of ways for construction and maintenance, fees, permits, studies, design, engineering and construction. If the affected parties can agree, then the TS should be included as a part of any FERC surrender order. In the absence of agreement, SWRCB should notify FERC that it requests, as a mandatory condition, that PG&E be required to construct and pay for such a Technical Solution or its equivalent such that the water users are not adversely affected. Furthermore, it is essential that the resource agencies agree in advance that they will entertain such a resolution and promptly process the TS. Finally, PG&E should be required to take all steps necessary to assure that the water users continue to enjoy the uninterrupted and continuous water deliveries to their homes and properties to avoid economic harm.

Tetrick Ranch By:  Date April 20, 2012
Steve Tetrick

By:  Date April 20, 2012
Bonnie Tetrick

Appendix 1

Indenture Wagoner-Smith 1907

Ded 582

William G. Wagoner, et al.
To J. Edward Smith.
Dated July 20th 1907.

This Indenture, made this 20th day of July, one thousand nine hundred and seven, between William G. Wagoner, Elya Ann Wagoner, Sr., Elya Ann Wagoner, Jr., and Charlotte Mary Ellis, (formerly Charlotte Mary Wagoner), all of the county of Shasta, state of California, the parties of the first part, and J. Edward Smith, of said county and state, the party of the second part, Witnesseth.

Whereas, Erastus Wagoner was in his lifetime the owner of the following described real estate and property, to-wit: the Northeast quarter ^{and East}

half of the Northwest quarter of section 7, township
 31 North, range 1 West, M. D. M., and of an undiv-
 ided one half interest in the Southeast quarter ^{and}
 the South half of the Northeast quarter ^{and} East
 half of the Southwest quarter of section 6, town-
 ship 31 North, range 1 West, M. D. M.; of which
 last described property, to wit: the Southeast
 quarter and South half of the Northeast quarter
 and East half of the Southwest quarter of section
 6, as aforesaid, the said William G. Hagoner
 was and is the owner of the other undivided
 one half interest, ^{and} whereas, the said Erastus
 Hagoner died, leaving a last will ^{and} testament
 which has been duly admitted to probate in
 the Superior Court of the State of California
 in ^{and} for the County of Shasta, whereby he gave
 and bequeathed the use ^{and} income of all his
 said real estate, as above described, to his sur-
 viving wife Eliza Ann Hagoner (who is herein-
 before designated as Eliza Ann Hagoner, Sr.)
 during her life, and upon her death the said
 property to become the property of said William
 G. Hagoner; and, whereas, the said estate of
 Erastus Hagoner, deceased, is still pending in
 said Superior Court in process of administrat-
 ion; and, whereas, the said party of the second
 part is desirous of purchasing, taking and
 acquiring the title in fee of that certain tract,
 piece or parcel of land comprising a portion
 of the above described lands, ^{and} herein after
 particularly described, for the purpose of using
 the same as a site for a power plant ^{and} for
 use in connection with the generation ^{and} trans-
 mission of electricity ^{and} electrical power, together

with the rights and privileges, as hereinafter set forth;

Now, Therefore, the said parties of the first part for and in consideration of the sum of ten dollars (\$10) gold coin of the United States of America, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, do by these presents grant, bargain, sell, convey and confirm unto the said party of the second part, and to his heirs and assigns, forever, all that certain tract, piece or parcel of land, situate, lying and being in said county of Shasta, state of California, in section six (6) township thirty-one (31) north, range one (1) west M. D. M., particularly bounded and described as follows, to wit:

Starting from a point two thousand four hundred and twenty-two and six-tenths (2422.6) feet west and one thousand nine hundred and seventy-two (1972) feet north of the southeast corner of said section six; running thence north eight degrees west four hundred feet to the north west corner, marked with a stake; thence north eighty-two degrees east five hundred and forty and two-tenths feet to the northeast corner, marked with a stake; thence south eight degrees east four hundred feet to the south east corner, marked with a stake; thence south eighty-two degrees west five hundred and forty and two-tenths feet to the southwest corner and place of beginning, also marked with a stake; said tract containing five acres or thereabouts;

Also the necessary right of way for roads, wagon roads, ditches, pipe lines and aqueducts.

and for the erection of poles and stringing of wires to and from said site over and across the lands of the said parties of the first part, with dischargend outlet through Hooten Gulch for the water after it leaves the wheels of the plant or point of use, said rightsnd privileges to be used with as little damage as is practicable to the use and enjoyment of the lands of said parties of the first part.

Together with the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.

To Have And To Hold, the said premises, together with the appurtenances, unto the said party of the second part, and to his heirs and assigns, forever.

In Witness Whereof the said parties of the first part have hereunto set their hands and seal the day and year first above written:

Signed, sealednd delivered in the presence of Mrs. C. Erickson.
Mrs. A. W. Felzer

William G. Wagoner (Seal)
Eliza x Ann Wagoner Sr. (Seal)
Eliza Ann Wagoner Jr. (Seal)
Charlotte Mary Ellis (Seal)

State of California, }
County of Shasta }

On this 20th day of July in the year one thousand nine hundred and seven before me, A. H. Smith, a Notary Public innd for the County of Shasta, personally appeared William G. Wagoner known to me to be the person whose name is subscribed to the within instrument, and he duly acknowledged to me that he

executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my Official Seal at my office in the County of Shasta, the day and year in this certificate first above written.



A. W. Smith.
Notary Public in and for the
County of Shasta, State of
California.

State of California, }
Fall River Mills }
County of Shasta }⁵⁵

On this 12th day of August in the year one thousand nine hundred and seven, before me, August W. Fetzer, a Notary Public in and for the County of Shasta, personally appeared Eliza Ann Wagoner, Sr. of Millville, in the County of Shasta, State of California known to me to be the person whose name is subscribed to the within instrument, and she acknowledged to me that she executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my Official Seal at my office in the County of Shasta, the day and year in this Certificate first above written.



August W. Fetzer.
Notary Public in and for the
County of Shasta State of
California.

State of California, }
County of Shasta }⁵⁶

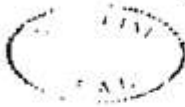
On this 26th day of August in the year one thousand nine hundred and seven before me, A. W. Smith, a Notary Public in and for the County

of Shasta, personally appeared Eliza Ann Wagoner, Jr. known to me to be the person whose name is subscribed to the within instrument, and she duly acknowledged to me that she executed the same.

In Witness Whereof I have hereunto set my hand and affixed my Official Seal at my office in the County of Shasta, the day and year in this certificate first above written.

A. W. Smith.

Notary Public In and For The County Of Shasta, State of California



State of California }
County of Shasta }

On this 30th day of August in the year one thousand nine hundred and seven before me, A. W. Smith, a Notary Public in and for the County of Shasta, personally appeared Charlotte Mary Ellis known to me to be the person whose name is subscribed to the within instrument, and she duly acknowledged to me that she executed the same.

In Witness Whereof I have hereunto set my hand and affixed my Official Seal at my office in the County of Shasta, the day and year in this certificate first above written.

A. W. Smith.

Notary Public In and For The County of Shasta, State Of California.



Recorded At Request Of George O. Perry Sep. 26 1907 at 15 min past 10 o'clock A. M.

A. L. Webb
County Recorder.

587

Appendix 2

Smith - Notice of Appropriation - 1907

17

Notice Of Appropriation

Notice is hereby given that the undersigned, J. Edward Smith, has this day appropriated and claims the water flowing in South Cow Creek to the extent of three thousand inches, measured under a four inch pressure.

That the purpose for which he claims said water is for the generation of electricity and electrical power for heating, lighting, mechanical and manufacturing purposes, for supplying cities, towns and villages with heat, light and power, for public use and for purposes of irrigation.

The place of intended use is to be first at the place known as the John E. Hamilton place on South Cow Creek in the County of Shasta, State of California, and second on the place known as the Hagones place at the upper end of South Cow Creek valley in said County of Shasta, State of California.

into the natural channel of South Cow Creek and flow down said South Cow Creek to the place known as the St. Vrain place there to be again taken out of the natural channel of said South Cow Creek by means of a ditch of equal or greater size than above specified and conveyed by said ditch to the head of a pipe line near the said place known as the Wagoner place and by said pipe line to the intended point of use on said Wagoner place.

Dated this 3rd day of December A.D. 1906.

Witnesses:

A. W. Smith

J. Edward Smith.

Locator.

Appendix 3

1965 California State Water Board Study, Page A-90, excerpt:

Leakage through the diversion dam and from the ditch which runs along the hillside parallel to the creek maintain a live stream in South Cow Creek in the reach between the diversion dam and Hooten Gulch.

Appendix 4

1965 California State Water Board Study

1965 Water Board Study sites that a majority the water for Diversion 73 “consists principally of water discharged into Hooten Gulch through the South Cow Creek tailrace”:

Diversion 73 is the Abbott Ditch from the south side of the east channel of South Cow Creek within SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 6, T31N, R1W.

A concrete and flashboard dam 6 feet high and 30 feet long diverts the water into a ditch 7 feet wide and 2 feet deep. Water available for diversion consists principally of water discharged into Hooten Gulch through the South Cow Creek Powerhouse tailrace, although a small amount is also contributed by the eastern channel of South Cow Creek and return flow from lands irrigated by the Wagoner Ditch (Diversion 72).

Appendix 5

1969 Adjudication – includes tailrace water as “natural flow”:

5. Natural Flow

The term "natural flow" means such flow as will occur at any point in a stream from the runoff of the watershed which it drains, from springs and seepage which naturally contribute to the stream, and from waste and return flow from dams, conduits, and irrigated lands, as distinguished from water released directly from storage for rediversion and use, or water imported from another watershed which is released directly to the natural channel for conveyance to place of beneficial use.

Appendix 6

Technical Solution

April 2013

Technical Solution to Resolve Tetrick Ranch / ADU Loss of Water from Decommissioning Project No. 606

Problem:

The proposed PG&E and FERC solution described as the preferred alternative in the Final Environmental Impact Statement (FEIS) for the decommissioning of FERC P-606 includes removing the Cow Creek powerhouse and eliminating the facilities that deliver the associated tailrace water that currently feeds Hooten Gulch. However this water supplies the Tetrick Ranch and Abbott Irrigation Ditch. Removal of the water from the tailrace also degrades the wetland-aquatic-riparian habitat along 0.5 miles of Hooten Gulch, which is known to support listed steelhead during portions of the year. The Tetrick Ranch and Abbott Ditch Users (ADU) as landowners and water rights holders have developed a solution to the problems associated with loss of habitat for listed anadromous salmonids and the FEIS failure to maintain water delivery to the ADU.

Solution:

The proposed project would re-establish approximately 1,200 feet of the historic east channel of South Cow Creek so that it once again flows into Hooten Gulch and thus continues to provide water to the historic and current Abbott Diversion. This solution also maintains flow in an additional 1,200 feet (approximately) of Hooten Gulch downstream of the confluence of the restored east channel that would be lost under the preferred alternative in the FEIS.

Project Elements would include:

- Construct a rock weir to deliver water from the existing east channel of South Cow Creek into a restored historic channel that contained flows prior to channelization of the main stem of South Cow Creek in the 1940's.
- The project would restore the aquatic and riparian habitat and adjacent floodplain within the historic channel (1,200 feet) such that fish habitat value is optimized and wetland habitat would be created.

- The boulder weir would be designed to allow fish passage and feature a failsafe diversion that allowed peak flows to continue to the main stem of South Cow Creek should they exceed the capacity of the restored channel.
- The newly restored channel banks would be stabilized with on-site rock, planted with native riparian vegetation and fenced to exclude livestock as necessary.
- The Project would maintain existing aquatic habitat in the lower quarter mile of Hooten Gulch by reestablishing historic flow from the restored east channel of South Cow Creek (this portion of Hooten Gulch would be dried up following the planned removal of the P-606 facilities).
- Reestablishing this flow in Hooten Gulch via restoration of the historic east channel minimizes changes to the existing water delivery pattern and maintains the Abbott Ditch Diversion 73 in its original and current location as corrected by the Shasta County Superior Court, January 30, 2012, per case number **68-38577**.
- The project would install a fish screen and ladder at the currently unscreened and un-laddered Hooten Gulch diversion dam (Diversion 73).
- Because the restored east channel will be designed as optimum fish habitat, screens are not needed at the inflow and outflow of the channel and fish will be encouraged rather than prevented from using this habitat.
- Adequate flow will be maintained in the restored channel because PG&E bypasses will be restored causing increased year-round flow in South Cow Creek.

Project Components:

- Fish screen and ladder at the Abbott Diversion
- Restoration and maintenance of up to 2,500 linear feet of salmonid habitat with a 1-3% gradient, substrate optimized for spawning, and stable, vegetated banks.
- Create and maintain up to 3 - 5 acres additional acres of wetlands
- A fish passable and failsafe rock weir design at the inflow of the re-established channel
- Fencing to eliminate bank damage from livestock
- Additional shade in the restored areas

Project Benefits:

- The FERC and CEQA process for the South Cow Creek portion of the PG&E proposed P-66 decommissioning can be solved with this project's approval.
- The historic and current diversion point of the Abbott Ditch remains unchanged.
- Project work could begin during periods of low flow as early as August 2014.
- No new screened diversion will need to be constructed in the main stem of South Cow Creek which is prone to flooding.

- No new roads or power lines will be required to operate a mechanical screen.
- Land owner cooperation.
- Additional 2,500 linear feet of ideal gradient for fish habitat.
- Maintains 1,200 linear feet of Hooten Gulch or fish and aquatic habitat.

Project Process:

- Buy-in of the stakeholders
- Settlement with PG&E
- Buy-in of resource agencies
- Project design benefits listed salmonids
- 1600 permit
- CEQA

Project Timeline:

- Stakeholder review of proposed project
- Settlement conference



- Existing Channel
- Restored East Channel

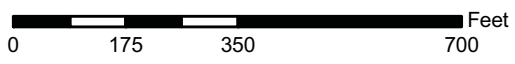


FIGURE 1
TETRIC RANCH TECHNICAL SOLUTION
RESTORED EAST CHANNEL
TETRIC RANCH
SHASTA COUNTY, CALIFORNIA



SOURCE: BING 2011