Churchwell White LLP

churchwellwhite.com

1414 K Street, 3rd Floor
Sacramento, CA 95814
T 916.468.0950 | F 916.468.0951

Kerry A. Fuller
T: 916.468.0620
Kerry@churchwellwhite.com

January 10, 2017

VIA HAND-DELIVERY

Ken Petruzzelli
State Water Resources Control Board
Office of Enforcement
801 K Street, 23rd Floor
Sacramento, CA 95814

Re: *Douglas and Heidi Cole, Marble Mountain Guest Ranch*

Dear Mr. Petruzzelli:

Enclosed please find the answers to the twenty-four questions posed in your email dated November 15, 2016, as well as the relevant documents requested described below.

Exhibit A - Articles of Incorporation for Marble Mountain Ranch
Exhibit B - The Grant Deed
Exhibit C - Statement of Information dated March 9, 2015
Exhibit D - Annual reports submitted to the United States Forest Service
Exhibit E - Email from David Markin confirming fire guests
Exhibit F & G - Diversion control structure project design and budget
Exhibit H - Records of Stanshaw Flow monitoring efforts
Exhibit I - Concept paper detailing alternative power upgrades
Exhibit J - Email confirming quote for solar power system update
Exhibit K - Proposal to return flow to Stanshaw Creek
Exhibit L - Grant application from 2004

If you have any questions or concerns please do not hesitate to email or call me.

Kind regards,

Churchwell **White** LLP

Kerry A. Fuller
cw

Enclosures

Churchwell White LLP

churchwellwhite.com

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Sacramento, CA 95814
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ACKNOWLEDGMENT OF RECEIPT

I, Julie Macedo, Sr Staff Counsel, received the letter dated
[Name] [Title]
January 10, 2017, from Kerry Fuller and all enclosures described therein, on

1/11, 2017.

Macedo
Signature of Recipient

Marble Mountain Ranch
Responses to State Water Resources Control Board Questions for December 16, 2016 Meeting

1. **Please provide corporate formation documents for Marble Mountain Ranch, Inc.**

The Articles of Incorporation for Marble Mountain Ranch are attached as **Exhibit A.**

2. **Please provide all title documents for the Marble Mountain Ranch property.**

The Grant Deed demonstrating the Coles' ownership of Marble Mountain Ranch is attached as **Exhibit B**.

3. **Please provide the most recent Statement of Information filed with the California Secretary of State.**

A copy of the latest Statement of Information is attached as **Exhibit C.**

4. **How did the diesel generator operating hours this year compare to operating hours in previous years? If the Coles have kept records of diesel generator operation, please provide them back to January 1, 1995.**

Records are only available for 2015 and 2016. Historically, in normal rainfall years, Marble Mountain Ranch would run the hydroelectric plant year round. Normal operations also included short periods of transfer to the diesel plant for episodic peak power demands that coincided with low flow periods in Stanshaw Creek.

During low flow periods, Marble Mountain Ranch's ditch and power management plans call for the truncation of flows to meet consumptive uses only while the diesel plant provides the needed electrical power until seasonal rains in the fall bring sufficient ditch flows to return to hydropower generation.

In 2016, Marble Mountain Ranch has only diverted enough water for consumptive use and remained on diesel power to comply with the National Marine Fisheries Service ("NMFS") recommended bypass flow and related Water Board demands. The hydroelectric power operation was shut down in May 2016 and Marble Mountain Ranch has continued to operate the diesel power generator in lieu of the hydroelectric plant through December 2016.

5. **How much did the diesel generator operation cost each month this summer? How did those expenses compare to earlier summers? If the Coles have kept records of operating costs for the diesel generator, please provide them. Again, if they have records back to 1995, please provide them back to January 1, 1995.**

Average daily diesel fuel use in 2016 year to date is 42 gallons per day. Diesel fuels were less expensive in 2016 due to global conditions and kept the operational expense of the diesel plant lower than some previous years. Total diesel plant operation expenses for the 8 month period of

May through December 2016 totals $34,682 with expected end of year costs totaling approximately $40,000.

6. **How many non-fire crew guests have the Coles had each month since January 1, 1995? If they have records, please provide them.**

The Coles do not maintain guest records for the period requested. Instead, attached as **Exhibit D**, are annual reports submitted to the United States Forest Service ("USFS") as a condition of the Coles' special use permit for use of USFS land. The records are a non-comprehensive review of the non-fire guests who have visited Marble Mountain Ranch in 2015 and 2016. The records do not include any records of lodging, meal services, recreational activities, or other services that are provided on Marble Mountain Ranch's privately held land.

7. **How many fire crew guests have the Coles had each month since January 1, 1995? If they have records, please provide them.**

An email from the Orleans/Ukonom Ranger District, District Fire Management Officer, David Markin is attached as **Exhibit E**. His email confirms that the Orleans/Uknonom Ranger District has used Marble Mountain Ranch for fire camps numerous times since the Coles' purchase of Marble Mountain Ranch in 1994.

Marble Mountain Ranch's services to fire crew guests vary dramatically on a year to year basis. Marble Mountain Ranch resources are often used when services from national caterers and contractors are unavailable. The single largest event that Marble Mountain Ranch has served occurred in 1994 during the Dillion complex fire. Marble Mountain Ranch served fire crew personnel that at times exceeded 600 individuals and services were provided from August of 1994 through October of 1994. Services varied, but included land use for commissaries, medical stations, security stations, public relations tents, payroll stations, sleeping quarters, laundry facilities, helicopter landing facilities, meeting facilities, meals services, and other related services.

The fire crews often hire Marble Mountain Ranch's services that are normally provided to Marble Mountain Ranch guests including:

- Rafts and drift boats being hired to transport crews across rivers
- Horses and pack strings hired to deliver meals and equipment to "spike" crews
- Pasture space rented for helicopter landing pads and sleeping quarter areas for crews to erect tents
- Cabins rented for helicopter pilots and incident commanders
- Housekeeping facilities are used to provide laundry services for crews on extended terms of duty
- Ranch kitchen services are used to provide hot meals for fire crews and fire camp management

Fire camps at Marble Mountain Ranch are generally smaller in size, ranging from 20-200 crew members. Marble Mountain Ranch does not maintain fire-camp specific records or contracts, but has entered into contracts for services that include a range of the services listed above with both USFS and Cal Fire.

8. **Have the Coles had any project proposals or estimates for installing a diversion control structure? What have those proposals and estimates been? Please provide any written proposals or estimates.**

As part of a grant from the Mid Klamath Watershed Council ("MKWC"), MKWC worked with Cascade Stream Solutions ("CCS") to create a design for a diversion control structure for a 6" PVC pipe intake to accommodate transport of consumptive use flows to Marble Mountain Ranch. The design has been previously provided and is attached as **Exhibit F**.

9. **Have the Coles had any project proposals or estimates for piping the diversion ditch? What have those proposals and estimates been? Please provide any written proposals or estimates.**

The MKWC worked with CSS to create a design for a 6" PVC pipe intake to accommodate transport of consumptive use flows to Marble Mountain Ranch. The design and budget for that project are attached as **Exhibits F and G**.

10. **Have the Coles had any project proposals or estimates for monitoring their diversion? What have those proposals and estimates been? Please provide any written proposals or estimates.**

MKWC monitored flows twice a month between May 2016 and August 2016, including taking readings above and below the diversion, multiple readings in the ditch itself before and after shunt flow channels, at the Highway 96 culvert on Stanshaw Creek, and going into and out of the MMR pond. MKWC spent $2,356.39 from NFWF Coho Enhancement Funds on this effort. Records of that monitoring effort are attached as **Exhibit H**.

11. **Have the Coles had any project proposals or estimates for monitoring bypass flows? What have those proposals and estimates been? Please provide any written proposals or estimates.**

The flow monitoring effort described in question #10 included bypass flowing monitoring.

12. **What are the Coles' electricity demands? Do they measure or keep records? If they have kept records, please provide the records. If the Coles still have records back to January 1, 1995, please provide them.**

The Coles are not connected to any conventional power grid. They generate their own electricity and there has never been a need to record the quantities that they produce or consume. As part of a possible upgrade to Marble Mountain Ranch's electrical system, an energy consultant made an

estimate of the current electrical demand and estimated the energy demand at Marble Mountain Ranch at roughly 126,265 kilowatts per year.

13. Have the Coles had any project proposals or estimates for alternative electricity production? What have those proposals and estimates been? Please provide any written proposals or estimates.

The Coles had a consultant, The Electrician INC. prepare a concept paper that explores various options for alternative energy production. Basically, a combination of allowable hydropower, solar and generator power, combined with energy saving infrastructure upgrades (distribution lines, reduced use of space heaters, etc) was proposed. That paper is attached as **Exhibit I.** The cost associated with that proposal was $425,000.

The Coles also had a solar power specialist provide them with a quote for updating their power system. The quote associated with that effort is $526,000 for a 65 Kilowatt solar system. An email confirming that quote is attached as **Exhibit J**.

The Coles have also explored the possibility of installing lined power from PG&E, with a consultant who no longer works with the Coles securing a quote from PG&E. The Coles have requested the quote from that consultant, but it has not been provided. At the time the quote was secured, the consultant indicated that pursuing lined power is prohibitively expensive without grant funding.

14. Have the Coles had any project proposals or estimates for eliminating the discharges to Irving Creek? What have those proposals and estimates been? Please provide any written proposals or estimates.

In 2004, MKWC worked with NRCS to create a proposal to CDFW FRGP program to pipe the entire Marble Mountain Ranch water system at the 3 cfs amount, including a return flow pipe from Marble Mountain Ranch back to Stanshaw Creek along Highway 96. This proposal was not funded because CDFW lawyers said Marble Mountain Ranch's water right needed further substantiation. The proposal is attached as **Exhibit K**.

The Coles were successful in demonstrating that they had a pre-1914 3 cfs right. They now are prepared to move forward with resource improvements, provided the funding is available to implement the proposed solutions.

15. Please provide any written plans, proposals, or project estimates for any alternative or alternatives to the project proposed on March 24, 2016.

Please see the response to question 16.

16. Please provide any alternative or alternatives to the project proposed on March 24, 2016 will eliminate and prevent the misuse of water, protect public trust resources, and prevent the discharge of pollutants and provide equal or greater protection.

This will be important for the meeting. Staff will need to be able to evaluate whether the Coles' "alternative" will adequately address the issues with their diversion and use of water.

The Coles are not engaged in any misuse of water. Thus, the Water Board and the Regional Board lack the jurisdiction to require that the Coles implement resource improvements. As pre-1914 right holders, their right to divert the 3 cfs of water has already considered public trust impacts and the State Water Board lacks the jurisdiction to require the Coles, as established pre-1914 rights holder, to take action to benefit public trust resources.

Nevertheless, the Coles are open to implementing any solutions that will benefit all users in the system, provided that there is funding available to them for those solutions. To that end, the Coles have assembled a new consultant team to assist them with designing, permitting and implementing resources improvements at Marble Mountain Ranch. Funding these improvements continues to be an obstacle to implementing those solutions. The Coles have sought funding opportunities throughout their ownership of the Ranch, but have been met with regulatory resistance which has blocked the Coles' efforts to improve the diversion.

17. **How many days of maintenance has the diversion ditch required since January 1, 1995? Do the Coles have records? If they do, please provide them.**

The Coles do not keep records of the hours that they spend maintaining the diversion and ditch. It is a part of the routine maintenance of ranch operations and occurs on a regular basis. The goal of the regular maintenance activity is to ensure that the diversion works. As part of their regular maintenance of the diversion, the Coles and their staff at Marble Mountain Ranch regularly reinforce the berm to prevent erosion and overtopping of the ditch, clear debris from the ditch, remove sediment build up from the ditch bottom and manage the diversion during storm events to block flow from entering the ditch until the storm surge has passed.

18. **How many times has the diversion ditch failed in January 1, 1995? When did those failures occur? What was the cause of each failure? What was the result of each failure? What was the time and cost to repair each failure?**

During the time of the Coles' ownership and maintenance of Marble Mountain Ranch, the diversion ditch has not had any failures.

19. **Please provide invoices for the cost of repairing the water tanks after January 1, 2015.**

The plastic water tanks were not repairable and the entire water system was replaced in order to meet the demand of the Water Board. The total cost for the replacement of the water purification system was $47,542. The most significant portions of this project include a contract with Watson Well Service for $27,345 to install three new filter tanks and an additional water storage tank. Additional expenses for this project included rental equipment to move filter medium ($2630.00), demolition and removal of the old tanks and gravel medium, excavator operator and equipment hires to complete site work ($2932), and additional water storage tanks purchased by

Marble Mountain Ranch separately (approximately $1700 / tank) to bring to a total of seven 2600 gallon Snyder storage tanks (one week storage capacity at full ranch occupancy).

20. Please provide invoices for the cost of purchasing new water tanks after January 1, 2015.

Invoices are not available, the cost of these efforts is included above.

21. Please provide any and all contracts for hosting fire crews since January 1, 1995.

The contracts are not available. An email from the coordinator for the fire station in the area confirming their use of Marble Mountain Ranch facilities is attached as **Exhibit E**.

22. Please provide any copies of applications for grants or other funding the Coles made since January 1, 1995 for improving energy, water, or similar infrastructure or for mitigating or remediating the impacts of their diversion and use of water.

A copy of the grant application from 2004 is attached as **Exhibit L**. The Coles also recently sought grant funding to install a six inch pipeline to transport consumptive use water to Marble Mountain Ranch. Following the Regional Water Board's Cleanup and Abatement Order and the State Water Board's Draft Order, the funding organization elected not to fund the project. The six inch pipe proposal design is attached as **Exhibit F**.

23. Please provide any copies of grants or other funding the Coles have received since January 1, 1995 for improving energy, water, or similar infrastructure or for mitigating or remediating the impacts of their diversion and use of water.

The Coles have not received any grants or other funding for these purposes. MKWC received funding to attain third party validation of the Cole's water right from Martha Lennihan at Lennihan Law from the NFWF Coho Enhancement Fund, and additional funding from this source to coordinate stakeholders meetings to pursue development of alternatives to address issues and concerns of various stakeholders. The Cole's have used their own funding to make all improvements to the diversion, thus far.

24. Please provide any records of diversion measurements the Coles have made since March 20, 2010.

The flow data from MKWC Fisheries program staff from May, 2016, to August, 2016 is attached as **Exhibit H**.

WR-157

ARTICLES OF INCORPORATION

E3752657

FILED
Secretary of State
State of California
FEB 02 2015

OF

MARBLE MOUNTAIN RANCH INC.

FIRST: The name of this corporation is **MARBLE MOUNTAIN RANCH INC.**

SECOND: The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of California other than the banking business, the trust company business or the practice of a profession permitted to be incorporated by the California Corporations Code.

THIRD: The name and address in this State of the corporation's initial agent for service of process is:

Douglas Cole
92520 Hwy 96
Somes Bar California 95568

FOURTH: The Initial Street and Mailing Address of Corporation is:

92520 Hwy 96
Somes Bar California 95568

FIFTH: This corporation is authorized to issue only one class of shares of stock, which shall be common stock. The total number of shares which the corporation is authorized to issue shall be One-Thousand (1,000) shares.

IN WITNESS WHEREOF, for the purposes of forming this corporation under the laws of the State of California, the undersigned, the sole Incorporator of this corporation, has executed these Articles of Incorporation this 28th day of January, 2015.

John J. Stifter

DECLARATION OF INCORPORATOR

The undersigned, John J. Stifter, does hereby declare that he is the person whose name is subscribed to the above Articles of Incorporation and that he executed the same by subscribing his name thereto, which execution is his act and deed.

Executed in Orange County, California, this 28th day of January, 2015.

John J. Stifter

WR-157

RECORDING REQUESTED BY
SISKIYOU COUNTY TITLE CO.

Siskiyou County Recorder
Leanna Dancer, Recorder

DOC - 07-0002949
Acct 1-Siskiyou County Title Co.
Monday, MAR 05, 2007 08:59:06
Ttl Pd $16.00 Nbr-0000119359
RAS/C2/1-4

RECORDING REQUESTED BY
Santa Cruz Title Company

MAIL TAX STATEMENTS TO
AND WHEN RECORDED MAIL
Norman D. Cole and Carolyn Taylor Cole and Douglas T. Cole and Heidi A. Cole
92520 Hwy 96
Somes Bar, CA 95568
Escrow or Loan No. **09558423-JEA**
201128-3

SPACE ABOVE THIS LINE FOR RECORDER'S USE

APN: 026-290-200, 026-290-240, 026-290-270

GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is -0-
☐ computed on full value of property conveyed, or
☐ computed on full value less value of liens and encumbrances remaining at time of sale.
☑ Unincorporated area: ☐ City of , and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged.
Norman D. Cole and Carolyn Taylor Cole, husband and wife, as joint tenants and Norman D. Cole and Carolyn Taylor Cole, as Trustees of the Cole Family Trust dated November 11, 1994 hereby GRANT(S) to **Norman D. Cole and Carolyn Taylor Cole, husband and wife and Douglas T. Cole and Heidi A. Cole, husband and wife** , all as joint tenants

the following described real property in the County of **Siskiyou,** State of California:

Dated: February 16, 2007

STATE OF CALIFORNIA
COUNTY OF ~~SISKIYOU~~ Yolo } SS.

On February 23, 2007 before me,
Gary R Wright, a Notary Public, personally appeared
Norman D. Cole and Carolyn Taylor Cole
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal.

Signature _____

Norman D. Cole
Norman D. Cole, Indiviually and as ~~Trustee~~

Carolyn Taylor Cole
Carolyn Taylor Cole, Indiviually and as ~~Trustee~~

GARY R. WRIGHT
Commission # 1699962
Notary Public - California
Yolo County
My Comm. Expires NOV. 18, 2010

MAIL TAX STATEMENT AS DIRECTED ABOVE

This form furnished by SANTA CRUZ TITLE COMPANY

Order Number: 00207128-300

Exhibit "One"

All that real property situate in the State of California, County of Siskiyou, described as follows:

PARCEL I

The Southeast quarter of the Northwest quarter of the Southwest quarter, the Southwest quarter of the Northeast quarter of the Southwest quarter, the North half of the Northwest quarter of the Southeast quarter of the Southwest quarter, the Northeast quarter of the Southeast quarter of the Southwest quarter, the Northeast quarter of the Southeast quarter of the Southeast quarter of the Southwest quarter, the Northwest quarter of the Northwest quarter of the Southwest quarter of the Southeast quarter, the South half of the Northwest quarter of the Southwest quarter of the Southeast quarter, and the Southwest quarter of the Southwest quarter of the Southeast quarter of Section 33, Township 13 North, Range 6 East, Humboldt Base and Meridian.

EXCEPTING THEREFROM all that portion of the Southwest quarter of the Southeast quarter of Section 33, Township 13 North, Range 6 East, Humboldt Meridian described as:

BEGINNING at the South quarter corner of said Section;
thence East 330 feet to the TRUE POINT OF BEGINNING;
thence East 330 feet along the South line of said Section to the East boundary of the Lue Hayes property;
thence North 330 feet along the East line of said Hayes property;
thence West 330 feet;
thence South 330 feet to the TRUE POINT OF BEGINNING.

FURTHER EXCEPTING those portions of the land in the West half of the Southwest quarter of the Southeast quarter, and in the Southwest quarter of Section 33, Township 13 North, Range 6 East, Humboldt Meridian, as conveyed to Lue Hayes et ux, by deed recorded July 1, 1955,inBook 352 at page 253, Official Records of Siskiyou County, lying Southerly of the line described as follows:

COMMENCING at a point on the South line of said Section 33, from which the corner common to Sections 3 and 4, Township 12 North, Range 6 East, Humboldt Meridian, and Sections 33 and 34, Township 13 North, Range 6 East, Humboldt Meridian, bears South 88°51'44" East, 1769.19 feet, said point also being Engineer's Station "A" 479+77.35 P.O.C., as established from the Department of Public Works 1964 Survey between Somes Bar and Ti Creek Road 01-Sis-96;
thence from a tangent which bears North 47°20'27" West, along a curve to the left having a radius of 1000.00 feet, through an angle of 07°37'11", a distance of 132.99 feet to Engineer's Station "A" 481+10.34 E.C., as established from said survey;
thence North 35°02'22" East, 100.00 feet to a point hereinbelow referred to a Point "B";
thence North 54°57'38" West 180 feet more or less to the East line of the West half of the Southwest quarter of the Southeast quarter of said Section 33, being the TRUE POINT OF BEGINNING of this line;
thence continuing North 54°57'38" West, 610 feet to a point for a total distance of 790.42 feet from said Point "B";
thence South 35°02'22" West, 34.00 feet;
thence from a tangent which bears North 54°57'38" West, along a curve to the left, having a radius of 1266.00 feet, through an angle of 14°29'35" a distance of 320.24 feet to a point hereinbelow referred to as Point "C";
thence North 69°27'13" West 520 feet, more or less, to the West line of the East half of the East half of the Southwest quarter of said Section 33;
thence continuing North 69°27'13" West, 290 feet , more or less to the South line of the North half of the North half of the Southeast quarter of the Southwest quarter of Section 33;

thence continuing North 69°27'13" West, 47 feet to a point, hereinbelow referred to as Point "D" for a total distance of 857.37 feet from said Point "C";
thence from a tangent which bears North 69°27'13" West along a curve to the left, having a radius of 5066.00 feet a distance of 355 feet, more or less to the West line of the Southeast quarter of the Southwest quarter of said Section 33;
thence continuing along last said curve, a distance of 335 feet to a point, hereinbelow referred to a Point "E:, through a total angle of 07°48'15", and a total distance of 690.03 feet from said Point "D";
thence North 41°41'14" West, 178 feet, more or less, to the South line of the Northwest quarter of the Southwest quarter of said Section 33;
thence continuing North 41°41'14" West 138 feet to a point for a total distance of 316.31 feet from said Point "E";
thence North 76°12'04" West, 128 feet, more or less, to the Point of Termination of this line on the West line of the East half of the Northwest quarter of the Southwest quarter of said Section 33.

EXCEPTIING THEREFROM that portion thereof lying Southerly of the line described as follows:

COMMENCING at said Engineer's Station "A" 481+10.34 E.C., hereinabove described;
thence North 54°57'38" West, 159.66 feet;
thence South 35°02'22" West, 225.00 feet to a point hereinbelow referred to as Point "F";
thence North 11°17'26" East, 17 feet, more or less, to the South line of said Section 33, being the TRUE POINT OF BEGINNING of this line;
thence continuing North 11°17'26" East, 120 feet to a point for a total distance of 136.57 feet from said Point "F";
thence North 54°57'38" West, 575.76 feet;
thence from a tangent which bears North 54°57'38" West, along a curve to the left, having a radius of 1100.00 feet, through an angle of 14°29'35", a distance of 278.25 feet;
thence North 69°27'13" West, 115 feet, more or less, to the POINT OF TERMINATION of this line on the West line of the East half of the East half of the East half of the Southwest quarter of said Section 33.

ALSO EXCEPTING THEREFROM that portion thereof conveyed to Edwin T. McMannis, et ux, by Deed recorded January 19, 1965 in Book 512 at page 457, Official Records of Siskiyou County.

The bearings used in the above description are on the California Co-ordinate System Zone 1, and the distances are surface.

PARCEL II:

That portion of the lands in the Southwest quarter of the Southeast quarter of Section 33, Township 13 North, Range 6 East, H.M., conveyed to the State of California by deed recorded December 15, 1965 in Book 524, Official Records, page 98, Siskiyou County Records, lying Northeasterly of a line described as follows:

COMMENCING at a point on the South line of said Section 33, from which the corner common to Sections 3 and 4, Township 12 North, Range 6 East, H.M., and Sections 33 and 34, Township 13 North, Range 6 East, H.M., bears South 88°51'44" East, 1769.19 feet, said point also being Engineer's Station "A" 479+77.35 P.O.C., as established from the Department of Public Works 1964 Survey between Somes Bar and Ti Creek Road 01-Sis-96;
thence from a tangent that bears North 47°20'27" West, along a curve to the left with a radius of 1000.00 feet, through an angle of 07°37'11", for a distance of 132.99 feet;
thence North 35°02'22" East, 100.00 feet;
thence North 54°57'38" West, 182 feet, more or less to the POINT OF INTERSECTION with the East line of said land, last said point being the TRUE POINT OF BEGINNING of this parcel thence continuing North 54°57'38" West, 117 feet, more or less to the POINT OF TERMINATION of this line

on the North line of said lands.

The bearings used in the above description are on the California Coordinate System Zone 1, and the distance are surface.

PARCEL III

A parcel of land lying in Section 33, Township 13 North, Range 6 East, Humboldt Meridian, Siskiyou County, California, described as follows:

BEGINNING at AP-8 of Tract 48, on the line between Tracts 48 and 49;
thence South 0°13' East, 120.00 feet along the West line of Tract 49 to a witness point, which is a standard USDA Forest Service aluminum post with an aluminum cap;
thence continuing South 0°13' East 13.38 feet;
thence leaving the West line of Tract 49 North 70°25'29" West 328.87 feet along the right-of-way line of California State Route 96, to a tangent curve, concave to the Southwest, having a radius of 5066.00 feet and a central angle of 0°47'55";
thence along said curve and the right-of-way line, 70.61 feet to a point on line 7-8 of Tract 48, which is West along said line 376.05 feet from AP-8;
thence East along said line 7-8, 376.05 feet to the POINT OF BEGINNING.

Assessor's Parcel No: 026-290-200 026-290-240 026-290-270

State of California
Secretary of State

S

Statement of Information
(Domestic Stock and Agricultural Cooperative Corporations)

FEES (Filing and Disclosure): $25.00.

If this is an amendment, see instructions.

IMPORTANT – READ INSTRUCTIONS BEFORE COMPLETING THIS FORM

1. CORPORATE NAME
MARBLE MOUNTAIN RANCH INC.

2. CALIFORNIA CORPORATE NUMBER
C3752657

This Space for Filing Use Only

No Change Statement (Not applicable if agent address of record is a P.O. Box address. See instructions.)

3. **If there have been any changes to the information contained in the last Statement of Information filed with the California Secretary of State, or no statement of information has been previously filed, this form must be completed in its entirety.**
☐ If there has been no change in any of the information contained in the last Statement of Information filed with the California Secretary of State, check the box and proceed to Item 17.

Complete Addresses for the Following (Do not abbreviate the name of the city. Items 4 and 5 cannot be P.O. Boxes.)

	CITY	STATE	ZIP CODE
4. STREET ADDRESS OF PRINCIPAL EXECUTIVE OFFICE 92520 HWY 96	SOMES BAR	CA	95568
5. STREET ADDRESS OF PRINCIPAL BUSINESS OFFICE IN CALIFORNIA, IF ANY 92520 HWY 96	SOMES BAR	CA	95568
6. MAILING ADDRESS OF CORPORATION, IF DIFFERENT THAN ITEM 4	CITY	STATE	ZIP CODE

Names and Complete Addresses of the Following Officers (The corporation must list these three officers. A comparable title for the specific officer may be added; however, the preprinted titles on this form must not be altered.)

	ADDRESS	CITY	STATE	ZIP CODE
7. CHIEF EXECUTIVE OFFICER/ DOUGLAS T. COLE	92520 HWY 96	SOMES BAR	CA	95568
8. SECRETARY HEIDI A. COLE	92520 HWY 96	SOMES BAR	CA	95568
9. CHIEF FINANCIAL OFFICER/ HEIDI A. COLE	92520 HWY 96	SOMES BAR	CA	95568

Names and Complete Addresses of All Directors, Including Directors Who are Also Officers (The corporation must have at least one director. Attach additional pages, if necessary.)

	ADDRESS	CITY	STATE	ZIP CODE
10. NAME DOUGLAS T. COLE	92520 HWY 96	SOMES BAR	CA	95568
11. NAME HEIDI A. COLE	92520 HWY 96	SOMES BAR	CA	95568
12. NAME	ADDRESS	CITY	STATE	ZIP CODE

13. NUMBER OF VACANCIES ON THE BOARD OF DIRECTORS, IF ANY: 0

Agent for Service of Process If the agent is an individual, the agent must reside in California and Item 15 must be completed with a California street address, a P.O. Box address is not acceptable. If the agent is another corporation, the agent must have on file with the California Secretary of State a certificate pursuant to California Corporations Code section 1505 and Item 15 must be left blank.

14. NAME OF AGENT FOR SERVICE OF PROCESS
DOUGLAS T. COLE

15. STREET ADDRESS OF AGENT FOR SERVICE OF PROCESS IN CALIFORNIA, IF AN INDIVIDUAL
92520 HWY 96

CITY: SOMES BAR STATE: CA ZIP CODE: 95568

Type of Business

16. DESCRIBE THE TYPE OF BUSINESS OF THE CORPORATION
ude ranch

17. BY SUBMITTING THIS STATEMENT OF INFORMATION TO THE CALIFORNIA SECRETARY OF STATE, THE CORPORATION CERTIFIES THE INFORMATION CONTAINED HEREIN, INCLUDING ANY ATTACHMENTS, IS TRUE AND CORRECT.

03/09/2015	John J. Stifter	Attorney	
DATE	TYPE/PRINT NAME OF PERSON COMPLETING FORM	TITLE	SIGNATURE

APPROVED BY SECRETARY OF STATE

SI-200 (REV 01/2013)

Secretary of State ALEX PADILLA

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SECRETARY OF STATE | ELECTIONS & VOTER INFO | CAMPAIGN FINANCE | CA.GOV BUSINESS PORTAL | ARCHIVES & MUSEUM | OTHER SERVICES

Results Detail

Last statement filed on: 9/17/2016

Corporation		
MARBLE MOUNTAIN RANCH INC.		
Number: C3752657	**Incorporation Date:**2/2/2015	**Status:**Active
Jurisdiction: CA	**Type:** Domestic Stock	
Address		
92520 HWY 96,		
SOMES BAR, CA 95568		
Agent For Service Of Process		
DOUGLAS T COLE		
92520 HWY 96,		
SOMES BAR, CA 95568		

Please review this information to determine if you have located the correct corporation. The corporation is not yet due to file the required statement; therefore, this filing must be filed either by mail or at our public counter in Sacramento. Refer to Statement of Information for the forms and instructions.

Search Results | New Search

Marble Mountain Ranch Back-Country Trail Use - 2016

Start Date	Trail Head	Destination	# Days	Exit Trail Head	# Stock	# Clients	Gross Income
4/20	Bull Pine	MMR	1 hr	MMR	5	4	$180
4/21	ranch river	MMR	1 hr	MMR	5	4	$180.00
4/22	Bald Butte	MMR	1hr	MMR	5	4	$180.00
5/20	Bull Pine	MMR	1hr	MMR	5	4	180
5/21	ranch river	MMR	1hr	MMR	5	4	180
5/28	Bald Butte	MMR	1hr	MMR	7	6	270
5/29	Bull Pine	MMR	1hr	MMR	7	6	270
6/1	ranch river	MMR	1hr	MMR	8	7	315
6/2	Bald Butte	MMR	1hr	MMR	8	7	315
6/8	Bull Pine	MMR	1hr	MMR	11	9	405
6/9	Bald Butte	MMR	1hr	MMR	11	9	405
6/10	Bull Pine	MMR	1hr	MMR	11	9	405
6/15	ranch river	MMR	1hr	MMR	23	20	900
6/16	Bald Butte	MMR	1hr	MMR	23	20	900
6/17	ranch river	MMR	1hr	MMR	23	20	900
6/22	Bull Pine	MMR	1hr	MMR	35	29	1305
6/23	Bald Butte	MMR	1hr	MMR	35	29	1305
6/24	Bull Pine	MMR	1hr	MMR	35	29	1305
6/29	ranch river	MMR	1hr	MMR	39	34	1530
6/30	Bald Butte	MMR	1hr	MMR	39	34	1530
7/1	ranch river	MMR	1hr	MMR	39	34	1530
7/6	Bull Pine	MMR	1hr	MMR	39	33	1485
7/7	ranch river	MMR	1hr	MMR	39	33	1485
7/8	Bull Pine	MMR	1hr	MMR	39	33	1485
7/13	Bull Pine	MMR	1hr	MMR	42	36	1620
7/14	Bald Butte	MMR	1hr	MMR	42	36	1620
7/15	ranch river	MMR	1hr	MMR	42	36	1620
7/20	Bull Pine	MMR	1 hr	MMR	38	32	1440
7/21	Bald Butte	MMR	1 hr	MMR	38	32	1440
7/22	ranch river	MMR	1 hr	MMR	38	32	1440
7/27	Bull Pine	MMR	1 hr	MMR	38	32	1440
7/28	Bald Butte	MMR	1 hr	MMR	38	32	1440
7/29	Bull Pine	MMR	1 hr	MMR	38	32	1440
8/3	ranch river	MMR	1 hr	MMR	40	34	1530
8/4	Bald Butte	MMR	1 hr	MMR	40	34	1530
8/5	ranch river	MMR	1 hr	MMR	40	34	1530
8/10	Bull Pine	MMR	1hr	MMR	39	33	1485
8/11	Bald Butte	MMR	1hr	MMR	39	33	1485
8/12	Ranch River	MMR	1hr	MMR	39	33	1485
8/17	Bull Pine	MMR	1hr	MMR	37	31	1395
8/18	Bald Butte	MMR	1hr	MMR	37	31	1395
8/19	Ranch River	MMR	1hr	MMR	37	31	1395
8/24	Bull Pine	MMR	1hr	MMR	21	19	855
8/25	Bald Butte	MMR	1hr	MMR	21	19	855
8/26	Ranch River	MMR	1hr	MMR	21	19	855
8/31	Bull Pine	MMR	1hr	MMR	12	9	405
9/1	Bald Butte	MMR	1 hr	MMR	12	9	405
9/2	Ranch River	MMR	1hr	MMR	12	9	405
9/7	Bull Pine	MMR	1 hr	MMR	7	6	270
9/8	Bald Butte	MMR	1 hr	MMR	7	6	270
9/9	Ranch River	MMR	1 hr	MMR	7	6	270

Bull Pine trail needs additional tread work repairs for 2017 and additional brush clearing.							
Bull Pine / Irving creek / ranch river trail rides = All 1 hr rides are based on $45/hr							
Total Volunteer Trail hours by MMR staff for 2016 =285 hours							
Note: maximum group size is 12 guests and 2 wranglers, so dates with large numbers illustrate our rot							
Totals:			0			$1,117	$50,265

Submitted By:

Name___ Doug Cole Compan MMR Date___ #####

Marble Mountain Ranch Back-Country Trail Use - 2015

Start Date	Trail Head	Destination	# Days	Exit Trail Head	# Stock	# Clients	Gross Income
5/13	Bull Pine	MMR	1 hr	MMR	11	7	$280
5/14	ranch river	MMR	1 hr	MMR	11	7	$280.00
5/20	Bald Butte	MMR	1hr	MMR	4	3	$120.00
5/21	Bull Pine	MMR	1hr	MMR	4	3	120
5/23	ranch river	MMR	1hr	MMR	4	3	120
5/27	Bald Butte	MMR	1hr	MMR	7	5	200
5/28	Bull Pine	MMR	1hr	MMR	7	5	200
6/3	ranch river	MMR	1hr	MMR	8	6	240
6/4	Bald Butte	MMR	1hr	MMR	8	6	240
6/5	Bull Pine	MMR	1hr	MMR	8	6	240
6/10	Bald Butte	MMR	1hr	MMR	12	19	760
6/11	Bull Pine	MMR	1hr	MMR	12	19	760
6/12	ranch river	MMR	1hr	MMR	12	19	760
6/17	Bald Butte	MMR	1hr	MMR	12	25	1000
6/18	ranch river	MMR	1hr	MMR	12	25	1000
6/19	Bull Pine	MMR	1hr	MMR	12	25	1000
6/24	Bald Butte	MMR	1hr	MMR	10	10	400
6/25	Bull Pine	MMR	1hr	MMR	10	10	400
6/26	ranch river	MMR	1hr	MMR	10	10	400
7/1	Bald Butte	MMR	1hr	MMR	12	24	960
7/2	ranch river	MMR	1hr	MMR	12	24	960
7/3	Bull Pine	MMR	1hr	MMR	12	24	960
7/8	ranch river	MMR	1hr	MMR	8	8	320
7/9	Bull Pine	MMR	1hr	MMR	8	8	320
7/10	Bull Pine	MMR	1hr	MMR	8	8	320
7/15	Bald Butte	MMR	1hr	MMR	12	16	640
7/16	ranch river	MMR	1hr	MMR	12	16	640
7/17	Bull Pine	MMR	1 hr	MMR	12	16	640
7/22	Bald Butte	MMR	1 hr	MMR	12	30	1200
7/23	ranch river	MMR	1 hr	MMR	12	30	1200
7/24	Bull Pine	MMR	1 hr	MMR	12	30	1200
7/29	Bald Butte	MMR	1 hr	MMR	12	29	1160
7/30	Bull Pine	MMR	1 hr	MMR	12	29	1160
7/31	ranch river	MMR	1 hr	MMR	6	29	1160
8/5	Bald Butte	MMR	1 hr	MMR	13	26	1040
8/6	ranch river	MMR	1 hr	MMR	13	26	1040
8/7	Bull Pine	MMR	1hr	MMR	13	26	1040
8/12	Bald Butte	MMR	1hr	MMR	12	23	920
8/13	Ranch River	MMR	1hr	MMR	12	23	920
8/14	Bull Pine	MMR	1hr	MMR	12	23	920
8/19	Bald Butte	MMR	1hr	MMR	12	31	1240
8/20	Ranch River	MMR	1hr	MMR	12	31	1240
8/21	Bull Pine	MMR	1hr	MMR	12	31	1240
8/26	Bald Butte	MMR	1hr	MMR	6	6	240
8/27	Ranch River	MMR	1hr	MMR	6	6	240
8/28	Bull Pine	MMR	1hr	MMR	6	6	240

Bull Pineand Bald Butte trail needs additional tread work repairs for 2015 and brush clearing.

Bull Pine / Irving creek / ranch river trail rides = All 1 hr rides are based on $40/hr

Total Volunteer Trail hours by MMR staff for 2015 =250							
Client numbers are more than stock numbers since we rotate riders onto the same animals							
Totals:			0		228	357	31680

Submitted By:

Name___ Doug Cole Compan MMR Date___ #####

SIX RIVERS NATIONAL FOREST
Special Use Activities Summary- Marble Mountain Ranch (MMR)
Year: 2016

Fee Schedule Options: (Please check one) **- USE LEAST EXPENSIVE OPTION PLEASE**

??? Option A-Based on average adjusted service day client charge using schedule of rates.
_____ Option B-Based on 3% of annual adjusted gross revenue.

	PUT-IN		TAKE-OUT			
River	Date	Location	Date2	Location2	Number of Clients	Daily Charge Per Client Per Day
klamath	22-Apr	PERSIDO	21-Apr	SANDY BAR	7	7 X $75 = $525
klamath	20-May	PERSIDO	20-May	SANDY BAR	4	4 X $75 = $300
Klamath	28-May	PERSIDO	28-May	SANDY BAR	7	7 X $75 = $525
klamath	7-Jun	PERSIDO	7-Jun	SANDY BAR	9	9 X $75 = $675
klamath	14-Jun	PERSIDO	14-Jun	SANDY BAR	20	20X $75 = $1500
klamath	21-Jun	PERSIDO	21-Jun	SANDY BAR	25	25 X $75 = $1875
klamath	28-Jun	PERSIDO	28-Jun	SANDY BAR	25	25 X $75 = $1875
klamath	5-Jul	PERSIDO	5-Jul	SANDY BAR	22	22 X $75 = $1650
klamath	12-Jul	PERSIDO	12-Jul	SANDY BAR	24	24 X $75 = $1800
klamath	19-Jul	PERSIDO	19-Jul	SANDY BAR	21	21 X $75 = $1575
klamath	26-Jul	PERSIDO	26-Jul	SANDY BAR	24	24 X $75 = $1800
klamath	2-Aug	PERSIDO	2-Aug	SANDY BAR	23	23 X $75 = $725
klamath	9-Aug	PERSIDO	9-Aug	SANDY BAR	25	25 X $75 = $1875
klamath	16-Aug	PERSIDO	16-Aug	SANDY BAR	32	32 X $75 = $2400
klamath	22-Aug	PERSIDO	22-Aug	SANDY BAR	19	19 X $75 = $1425
klamath	1-Sep	PERSIDO	9//2016	SANDY BAR	12	12 X $75 = $900
klamath	7-Sep	PERSIDO	7-Sep	SANDY BAR	7	7 X $75 = $525
TOTALS:					306	$21,950

Submitted by : Doug Cole
Marble Mountain Ranch 2016

KLAMATH NATIONAL FOREST
Special Use Activities Summary-Guided Fishing
Year: 2016

Fee Schedule Options: (Please check one)

_____ Option A-Based on average adjusted service day client charge using schedule of rates.
_____ Option B-Based on 3% of annual adjusted gross revenue.

	PUT-IN		TAKE-OUT			
River	Date	Location	Date2	Location2	Number of Clients	Daily Charge Per Client Per Boat Day
klamath	23-Sep	ti bar	23-Sep	stewarts bar	1	$400.00
klamath	1-Oct	coon	1-Oct	persido	1	$400.00
klamath	6-Oct	ti bar	6-Oct	stewarts bar	1	$400.00
klamath	7-Oct	coon	7-Oct	persido	2	$400.00
klamath	8-Oct	coon	8-Oct	persido	2	$450.00
klamath	9-Oct	ti bar	9-Oct	stewarts bar	2	$450.00
klamath	19-Oct	coon	19-Oct	persido	2	$450.00
klamath	20-Oct	ti bar	20-Oct	stewarts bar	4	$450.00
klamath	21-Oct	persido	21-Oct	stewarts bar	2	$450.00
klamath	25-Oct	ti bar	25-Oct	stewarts bar	2	$450.00
klamath	28-Oct	persido	10/260/20	coon	2	$450.00
klamath	28-Oct	ti bar	28-Oct	stewarts bar	2	$450.00
klamath	29-Oct	coon	29-Oct	persido	1	$450.00
klamath	29-Oct	ti bar	29-Oct	stewarts bar	2	$450.00
klamath	2-Nov	ti bar	2-Nov	stewarts bar	2	$450.00
klamath	3-Nov	coon	3-Nov	persido	2	$450.00
klamath	5-Nov	coon	5-Nov	persido	2	$450.00
klamath	8-Nov	coon	8-Nov	persido	2	$450.00
klamath	8-Nov	ti bar	8-Nov	stewarts bar	2	$450.00
klamath	9-Nov	ti bar	9-Nov	stewarts bar	2	$450.00
klamath	9-Nov	coon	9-Nov	persido	2	$450.00
klamath	10-Nov	ti bar	10-Nov	stewarts bar	2	$450.00
klamath	12-Nov	ti bar	######	stewarts bar	2	$450
klamath	13-Nov	coon	######	persido	2	$450.00
klamath	17-Nov	coon	######	persido	2	$450.00
klamath	18-Nov	ti bar	######	stewarts bar	2	$450.00
klamath	19-Nov	coon	######	persido	2	$450.00
klamath	19-Nov	ti bar	######	stewarts bar	1	$350
TOTALS:					53	$12,300.00

Submitted By Doug Cole

KLAMATH NATIONAL FOREST
Special Use Activities Summary-Guided Fishing
Year: 2015

3

Fee Schedule Options: (Please check one)

_____ Option A-Based on average adjusted service day client charge using schedule of rates.
_____ Option B-Based on 3% of annual adjusted gross revenue.

	PUT-IN		TAKE-OUT			
River	Date	Location	Date2	Location2	Number of Clients	Daily Charge Per Client Per Boat Day
klamath	6-Oct	ti bar	6-Oct	stewarts bar	1	$400.00
klamath	5-Oct	coon	5-Oct	persido	1	$400.00
klamath	14-Oct	ti bar	14-Oct	stewarts bar	1	$400.00
klamath	13-Oct	ti bar	13-Oct	stewarts bar	2	$400.00
klamath	14-Oct	coon	14-Oct	persido	2	$400.00
klamath	15-Oct	coon	14-Oct	persido	2	$400.00
klamath	16-Oct	coon	16-Oct	persido	2	$400.00
klamath	17-Oct	ti bar	17-Oct	stewarts bar	4	$800.00
klamath	26-Sep	persido	26-Sep	stewarts bar	2	$400.00
klamath	2-Nov	ti bar	2-Nov	stewarts bar	2	$400.00
klamath	26-Oct	persido	26-Oct	coon	1	$350.00
klamath	15-Oct	ti bar	15-Oct	stewarts bar	2	$400.00
klamath	3-Nov	coon	3-Nov	persido	1	$350.00
klamath	31-Oct	ti bar	31-Oct	stewarts bar	2	$400.00
klamath	30-Oct	ti bar	30-Oct	stewarts bar	2	$400.00
klamath	23-Oct	coon	23-Oct	persido	2	$400.00
klamath	24-Oct	sandy bar	24-Oct	stewarts bar	2	$400.00
klamath	25-Oct	coon	25-Oct	persido	2	$400.00
klamath	21-Oct	ti bar	21-Oct	stewarts bar	2	$400.00
klamath	23-Oct	sandy bar	23-Oct	stewarts bar	2	$400.00
klamath	26-Oct	coon	26-Oct	persido	2	$400.00
klamath	27-Oct	ti bar	27-Oct	stewarts bar	2	$400.00
klamath	28-Oct	ti bar	######	stewarts bar	2	$400
klamath	29-Oct	coon	######	persido	2	$400.00
klamath	30-Oct	coon	######	persido	2	$400.00
klamath	31-Oct	ti bar	######	stewarts bar	2	$400.00
klamath	2-Nov	coon	11/2/2015	persido	2	$400.00
klamath	3-Nov	ti bar	11/3/2015	stewarts bar	2	$400
klamath	4-Nov	ti bar	11/4/2015	stewarts bar	2	$400
TOTALS:					55	$11,900.00

Submitted By Doug Cole

KLAMATH NATIONAL FOREST
Special Use Activities Summary- Marble Mountain Ranch (MMR)
Year: 2016

Fee Schedule Options: (Please check one) **- USE LEAST EXPENSIVE OPTION PLEASE**

??? Option A-Based on average adjusted service day client charge using schedule of rates.
_____ Option B-Based on 3% of annual adjusted gross revenue.

	PUT-IN		TAKE-OUT			
River	Date	Location	Date2	Location2	Number of Clients	Daily Charge Per Client Per Day
klamath	20-Apr	Ferry Point	20-Apr	coon	7	7 X $75 = $525
klamath	22-Apr	indian	22-Apr	wingate	7	7 X $75 = $525
klamath	21-May	Ferry Point	21-May	coon	2	2X $75 = $150
klamath	29-May	independence	29-May	coon	7	7 X $75 = $525
klamath	3-Jun	indian	3-Jun	wingate	5	5X$75 = $375
klamath	8-Jun	Ferry Point	8-Jun	coon	9	9 X $75 = $675
klamath	10-Jun	indian	10-Jun	wingate	9	9 X $75 = $675
klamath	15-Jun	indian	15-Jun	wingate	12	12 X $75 = $900
klamath	17-Jun	Ferry Point	17-Jun	coon	15	15X $75 = $1125
klamath	22-Jun	Ferry Point	22-Jun	coon	24	24 X $75 = $1800
klamath	24-Jun	indian	24-Jun	wingate	22	22 X $75 = $1650
klamath	29-Jun	independence	29-Jun	coon	25	25 X $75 = $1875
klamath	1-Jul	indian	1-Jul	wingate	24	24 X $75 = $1800
klamath	6-Jul	independence	6-Jul	coon	22	22 X $75 = $1650
klamath	8-Jul	indian	8-Jul	wingate	22	22 X $75 = $1650
klamath	13-Jul	independence	13-Jul	coon	24	24 X $75 = $1800
klamath	15-Jul	indian	15-Jul	wingate	23	23 X $75 = $1725
klamath	20-Jul	independence	20-Jul	coon	21	21 X $75 = $1575
klamath	22-Jul	independence	22-Jul	coon	21	21 X $75 = $1575
klamath	27-Jul	independence	27-Jul	coon	24	24 X $75 = $1800
klamath	29-Jul	indian	29-Jul	wingate	23	23 X $75 = $1725
klamath	3-Aug	independence	3-Aug	coon	23	23 X $75 = $1725
klamath	5-Aug	indian	5-Aug	wingate	24	24 X $75 = $1800
klamath	10-Aug	independence	10-Aug	coon	25	25 X $75 = $1875
klamath	12-Aug	indian	12-Aug	wingate	13	13 X $75 = $975
klamath	12-Aug	indian	12-Aug	wingate	16	16 X $75 = $1200
klamath	17-Aug	independence	17-Aug	coon	20	20 X $75 = $1500
klamath	17-Aug	independence	17-Aug	coon	12	12 X $75 = $900
klamath	19-Aug	indian	19-Aug	wingate	19	19 X $75 = $1425
klamath	19-Aug	indian	19-Aug	wingate	12	12 X $75 = $900
klamath	24-Aug	independence	24-Aug	coon	19	19 X $75 = $1425
klamath	26-Aug	indian	826/2016	wingate	19	19 X $75 = $1425
klamath	31-Aug	independence	31-Aug	coon	9	9 X $75 = $675
klamath	2-Sep	indian	2-Sep	wingate	12	12 X $75 = $900
klam	8-Sep	indian	8-Sep	wingate	7	7 X $75 = $525
TOTALS:					578	$43,350

Submitted by : Doug Cole
Marble Mountain Ranch 2016

KLAMATH NATIONAL FOREST
Special Use Activities Summary- Marble Mountain Ranch (MMR)
Year: 2015

Fee Schedule Options: (Please check one) **- USE LEAST EXPENSIVE OPTION PLEASE**

??? Option A-Based on average adjusted service day client charge using schedule of rates.
_____ Option B-Based on 3% of annual adjusted gross revenue.

	PUT-IN		TAKE-OUT			
River	Date	Location	Date2	Location2	Number of Clients	Daily Charge Per Client Per Day
klamath	29-May	independence	29-May	coon	5	5 X $75 = $375
klamath	3-Jun	independence	3-Jun	coon	7	7 X $75 = $525
klamath	5-Jun	indian	5-Jun	wingate	2	2X $75 = $150
klamath	9-Jun	Persido	9-Jun	sandy bar	14	14 X $75 = $1050
klamath	10-Jun	independence	10-Jun	coon	14	14 X $75 = $1050
klamath	13-Jun	indian	13-Jun	wingate	14	14 X $75 = $1050
klamath	16-Jun	Persido	16-Jun	sandy bar	25	25 X $75 = $1875
klamath	17-Jun	independence	17-Jun	coon	25	25 X $75 = $1875
klamath	20-Jun	indian	20-Jun	wingate	23	23 X $75 = $1725
klamath	23-Jun	Persido	23-Jun	sandy bar	10	10 X $75 = $750
klamath	24-Jun	independence	24-Jun	coon	10	10 X $75 = $750
klamath	26-Jun	indian	26-Jun	wingate	8	8 X $75 = $600
klamath	1-Jul	persido	1-Jul	sandy bar	25	25 X $75 = $1875
klamath	3-Jul	independence	3-Jul	coon	24	24 X $75 = $1800
klamath	4-Jul	indian	4-Jul	wingate	24	24 X $75 = $1800
klamath	7-Jul	Persido	7-Jul	sandy bar	9	9 X $75 = $675
klamath	8-Jul	independence	8-Jul	coon	9	9 X $75 = $675
klamath	10-Jul	indian	10-Jul	wingate	9	9 X $75 = $675
klamath	14-Jul	Persido	14-Jul	sandy bar	16	16 X $75 = $1200
klamath	15-Jul	independence	15-Jul	coon	16	16 X $75 = $1200
klamath	16-Jul	indian	16-Jul	wingate	16	16 X $75 = $1200
klamath	23-Jul	independence	23-Jul	coon	26	26 X $75 = $2950
klamath	24-Jul	indian	24-Jul	wingate	25	25 X $75 = $1875
klamath	28-Jul	persido	28-Jul	sandy bar	25	25 X $75 = $1875
klamath	29-Jul	independence	29-Jul	coon	25	25 X $75 = $1875
klamath	31-Jul	indian	31-Jul	wingate	26	26 X $75 = $1950
klamath	4-Aug	Persido	4-Aug	sandy bar	16	16 X $75 = $1200
klamath	5-Aug	independence	5-Aug	coon	16	16 X $75 = $1200
klamath	7-Aug	indian	7-Aug	wingate	23	23 X $75 = $1725
klamath	11-Aug	Persido	11-Aug	sandy bar	26	26 X $75 = $1950
klamath	12-Aug	independence	12-Aug	coon	26	26 X $75 = $1950
klamath	15-Aug	indian	15-Aug	wingate	26	26 X $75 = $1950
TOTALS:					565	$41,175

Submitted by : Doug Cole
Marble Mountain Ranch 2015

Kerry Fuller

From: Barbara Brenner
Sent: Thursday, December 08, 2016 2:18 PM
To: Kerry Fuller
Subject: Fwd: Use of Marble Mountain Guest Ranch for Fire's

Barbara A. Brenner | Partner
T 916.468.0625 | barbara@churchwellwhite.com

Churchwell White LLP
1414 K Street, 3rd Floor, Sacramento, CA 95814
M 916.995.7314 | F 916.468.0951
churchwellwhite.com

Begin forwarded message:

From: Marble Mountain Ranch <guestranch@marblemountainranch.com>
Date: December 8, 2016 at 3:18:39 PM CST
To: Barbara Brenner <Barbara@churchwellwhite.com>
Subject: Fwd: Use of Marble Mountain Guest Ranch for Fire's

FYI - regarding the waterboard questioning fire camps at MMR. Doug

Begin forwarded message:

From: "Markin, David -FS" <dmarkin@fs.fed.us>
Subject: Use of Marble Mountain Guest Ranch for Fire's
Date: December 8, 2016 at 12:53:57 PM PST
To: "Douglas Cole (guestranch@marblemountainranch.com)" <guestranch@marblemountainranch.com>

I David Markin the district fire management officer on the Orleans/ Ukonom ranger district have worked in this area for the Forest Service for 29 years. I would like to state that we as an agency utilize Marble Mountain Ranch numerous times in the past as a fire camp to house helicopters as well as firefighters. This service that has been provided to us the Forest Service is very appreciated and will continue in the future as we live in a very pronounced fire environment.

We have used this ranch in 2008 for the complex fires in our area namely the Siskiyou and Blue 2 fires, 2015 was the most resent with the Nickowitz fire. There have been several other occasions were the ranch has provided us service. Time frames vary from 5 to 35 days at a time.

If you have any more questions feel free to contact me direct my information is below, thanks David Markin.

David Markin
District Fire Management Officer
Forest Service
Six Rivers National Forest Service
P: 530-627-3263
C: 707-496-2486
F: 530-627-0064
dmarkin@fs.fed.us
1 Ishi Pishi Rd.
Orleans Ca, 95556
www.fs.fed.us

PRELIMINARY PLANS FOR

Marble Mountain Ranch
Consumptive Use Pipeline and Intake

July 2016

Approved by:

Landowner: _____ Date

Mid-Klamath Watershed Council: _____ Date

Leonard Joey Howard (date)
CALIFORNIA REGISTERED
PROFESSIONAL ENGINEER NO. # 53319
Cascade Stream Solutions, LLC

SHEET INDEX

GENERAL NOTES

1. TOPOGRAPHY IS BASED ON NORTH STATE LAND SURVEYING AND CASCADE STREAM SOLUTIONS SURVEYS CONDUCTED IN 2014. MARBLE MOUNTAIN RANCH MAINTENANCE ACTIVITIES MAY HAVE ALTERED DITCH INVERT ELEVATIONS. CONTRACTOR SHALL NOTIFY MKWC IF CONTRACTOR NOTES DISCREPANCIES BETWEEN THE PLANS AND THE DITCH PROFILE.

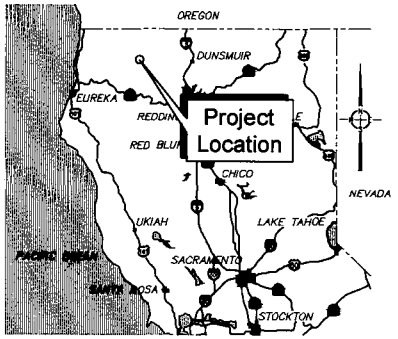
2. CONTRACTOR SHALL NOTIFY USA NORTH AT 811 OR 1-800-227-2600 OR WWW.USANORTH.ORG TO REQUEST IDENTIFICATION AND LOCATION OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL CONTACT USA NORTH 2 TO 14 DAYS BEFORE PLANNED EXCAVATION DATE.

3. THIS PROJECT MAY BE SUBJECT TO REQUIREMENTS OF PERMITS ISSUED BY VARIOUS REGULATORY AGENCIES. THE CONTRACTOR IS RESPONSIBLE TO UNDERSTAND AND PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE TO VERIFY THE MOST RECENT COPY OF ALL APPLICABLE PERMITS ARE INCORPORATED IN TO THE PROJECT CONSTRUCTION DOCUMENTS.

   THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING SEDIMENT OR POLLUTANTS FROM LEAVING THE WORK AREA.

4. WHEN CONDITIONS IN THE FIELD DO NOT CONFORM WITH INFORMATION IN THESE PLANS AND/OR WHEN UNUSUAL CIRCUMSTANCES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE OWNER'S REPRESENTATIVE.

5. IN THE EVENT THAT ANY ARCHEOLOGICAL ARTIFACTS ARE UNCOVERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL STOP ALL WORK IMMEDIATELY IN THE AREA AND CONTACT THE OWNER'S REPRESENTATIVE. WORK IN THE AREA SHALL NOT RESUME UNTIL APPROVED BY THE OWNER'S REPRESENTATIVE.



Mid-Klamath Watershed Council
P.O. Box 409
Orleans, CA 95556

Cascade Stream Solutions
295 East Main, Suite 11
Ashland, Oregon 97520
Phone: (541) 884-0492

Drawing Information	
Date	1 April 2016
Status	PRELIMINARY
Designer	jh
Drafter	jh
Checked	
File Name	Marble Mountain Pipeline
Plotted Scale	0 1/2 1

Revisions		
No.	Date	Description

PRELIMINARY
NOT FOR CONSTRUCTION

Marble Mountain Ranch
Consumptive Use Pipeline and Intake
Title Sheet

Job Number 2015-115
Sheet Number 1
Sheet 1 of 4

Mid-Klamath Watershed Council
P.O. Box 409
Orleans, CA 95556

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Phone: (541) 864-0492

Cascade STREAM SOLUTIONS

Drawing Information	
Date	1 April 2016
Status	PRELIMINARY
Designer	jh
Drafter	jh
Checked	
File Name	Marble Mountain Pipeline
Plotted Scale	0 1/2 1

Revisions		
No.	Date	Description

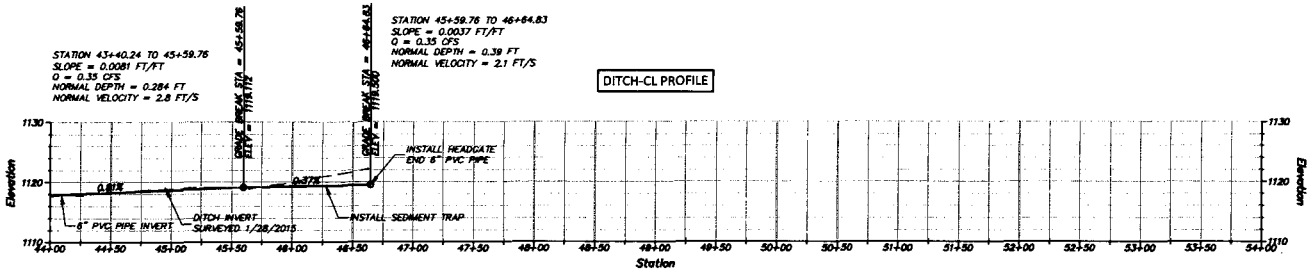
PRELIMINARY
NOT FOR CONSTRUCTION

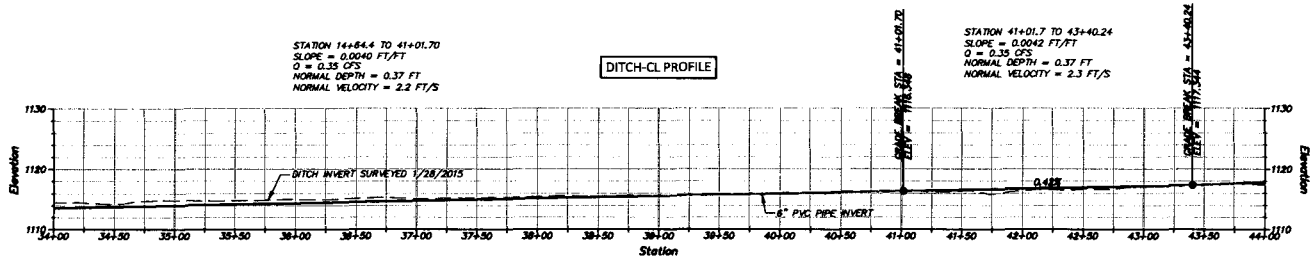
Marble Mountain Ranch
Consumptive Use Pipeline and Intake
Plan View

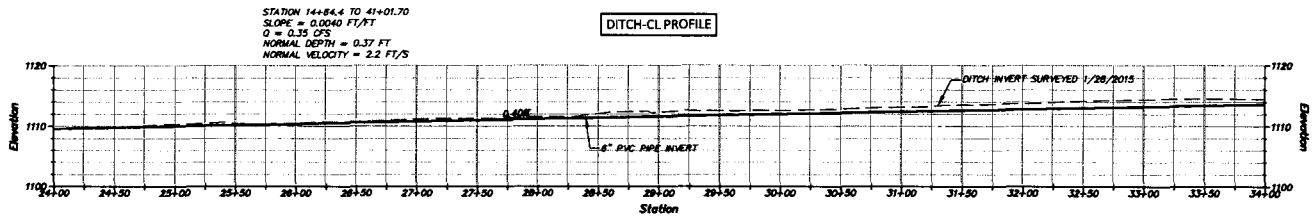
Job Number 2015-115

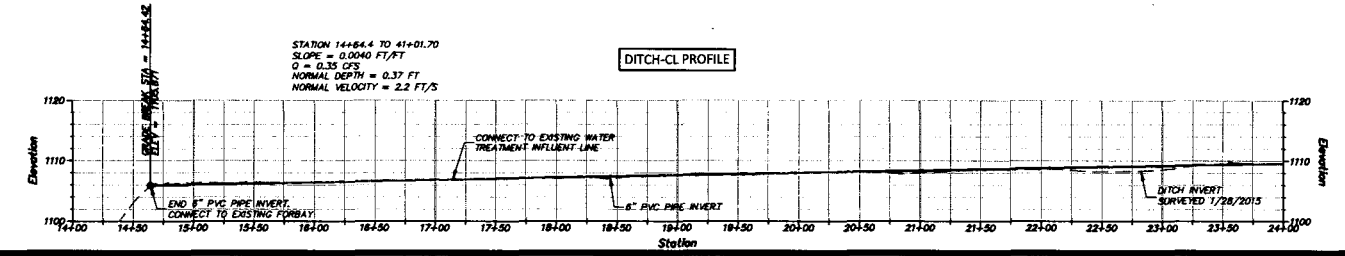
Sheet Number 2

Sheet 2 of 4









Mid-Klamath Watershed Council
P.O. Box 409
Orleans, CA 95556

Cascade Stream Solutions
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Ashland, Oregon 97520
Phone: (541) 864-0492
Cascade STREAM SOLUTIONS

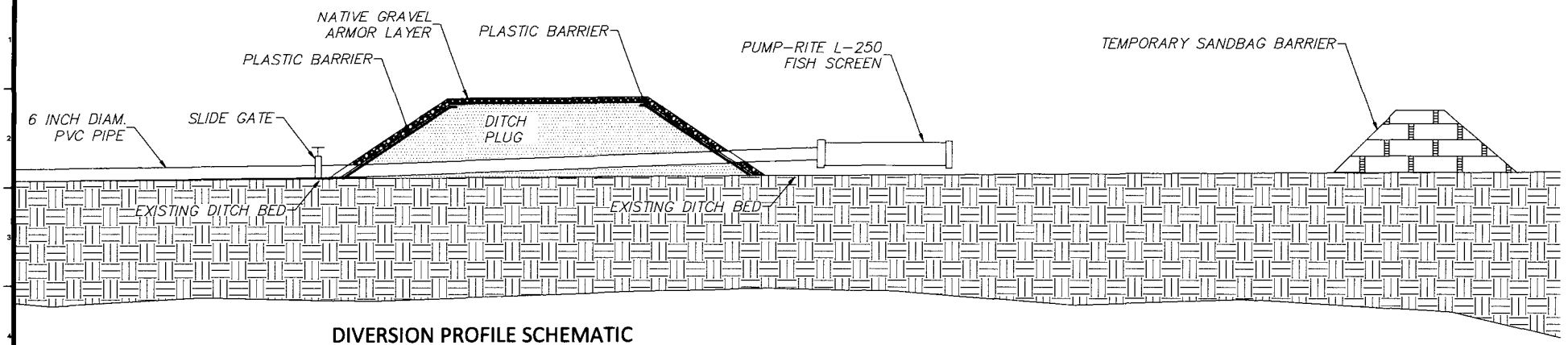
Drawing Information	
Date	11 April 2016
Status	PRELIMINARY
Designer	jh
Drafter	jh
Checked	
File Name	Marble Mountain Pipeline
Plotted Scale	0 1/2 1

Revisions		
No.	Date	Description

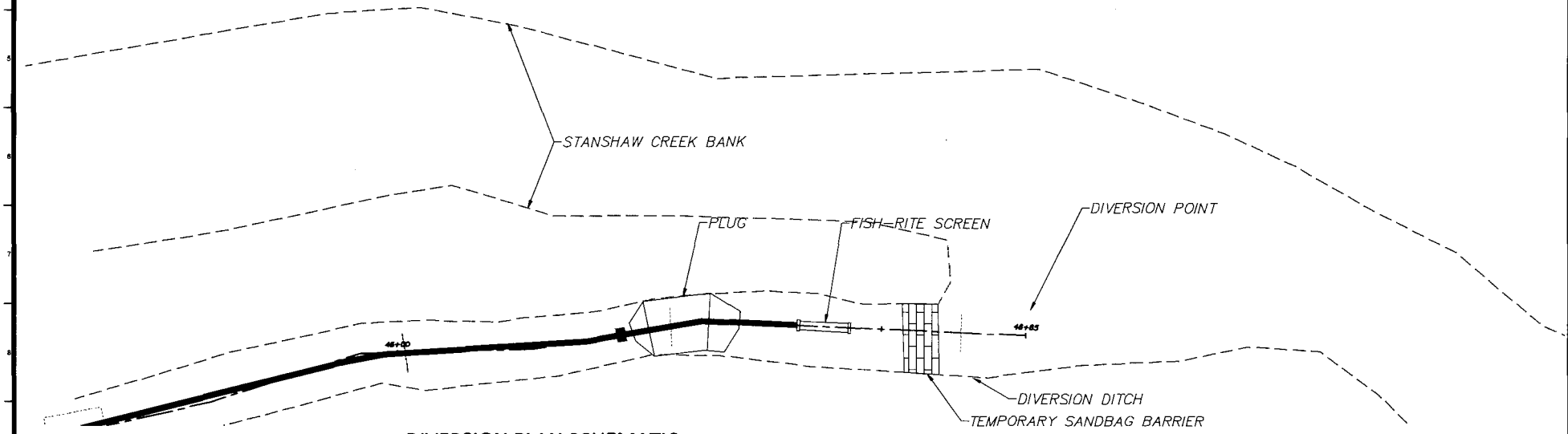
PRELIMINARY
NOT FOR CONSTRUCTION

Marble Mountain Ranch
Consumptive Use Pipeline and Intake
Pipe Profile

Job Number 2015-115
Sheet Number 3
Sheet 3 of 4



DIVERSION PROFILE SCHEMATIC



DIVERSION PLAN SCHEMATIC

Mid-Klamath Watershed Council
P.O. Box 409
Orleans, CA 95556

Cascade Stream Solutions
295 East Main, Suite 11
Ashland, Oregon 97520
Phone: (541) 864-0482
Cascade STREAM SOLUTIONS

Drawing Information	
Date	29 July 2016
Status	Existing Cond
Designer	jh
Drafter	jh
Checked	
File Name	Option 1 Intake Site
Plotted Scale	0 1/2 1

Revisions		
No.	Date	Description

PRELIMINARY NOT FOR CONSTRUCTION

Marble Mountain Ranch
Consumptive Use Pipeline and Intake
Intake and Screen Detail

Job Number 2015-115
Sheet Number 4
Sheet 4 of 4

APPENDIX A

Proposal Application Form

Section 1: Summary Information

1. Applicant name: Mid Klamath Watershed Council

2. Contact person: Will Harling
3. Address: Box 840
4. City: Somes Bar
5. State: CA
6. ZIP: 95568
7. Telephone number: (530) 469-3216
8. FAX number: (530) 469-3372
9. Email address: wharling@sisqtel.net

10. Type: Public Agency ☐ Nonprofit Organization ☒ Private Enterprise ☐ Indian Tribe ☒

11. OSBCR Certified Small Business? ☐
    If yes, specify the industry group and Small Business Reference Number:

12. Past contractor? ☒

13. Federal taxpayer ID: 20-1501256

14. Project type: Water Conservation

15. Project title: 2004 Stanshaw Creek Water Conservation Project - Phase I

16. Amount requested:

17. Total project cost:

18. Salmonid species benefited: Chinook ☒ Coho ☒ Steelhead ☒ Cutthroat ☐

19. Project summary: This project will pipe return water diverted from Stanshaw Creek to Marble Mountain Ranch for power generation back to Stanshaw Creek. Currently as much as 3 cfs is diverted via ditch out of the Stanshaw Creek basin into Irving Creek.

20. Stream: Stanshaw Creek

21. Tributary to: Klamath River

22. Major drainage system: Klamath River

23. County(ies): Siskiyou

24. Within Coastal Zone? ☐ Within Trinity River basin? ☐ Within Klamath River basin? ☒

Section 2: Location Information

1. Township, Range, Section: T13 R6E Sec 33

Latitude, Longitude (in decimal degrees): 41.30.00 N, 123.30.00 W

3. Location description: Project will install a 12" return flow pipe from the hydroelectric plant on Marble Mountain Ranch to the upstream inlet of the Stanshaw Creek Highway 96 culvert (3200 ft) (see attached map and drawing). Project is located 7.5 miles north

of Somes Bar, CA, along Hwy 96. Project is approx. 1800 feet above confluence of Stanshaw Creek with the Klamath River.

4. Directions:

ROM YREKA go North on Highway 263 to the junction with Highway 96, then proceed South-West 63 miles to Happy Camp and continue another 30 miles to the ranch. Marble Mountain Ranch (MMR) is on the left side of the road up a ramped driveway. Driving time is about 2 hours from Yreka.

FROM REDDING proceed West on highway 299 for 109 miles to Willow Creek. Take highway 96 North 47 miles to Somes Bar, then continue North 7 1/2 miles to MMR on your right. Driving time is about 3 hours from Redding.

FROM EUREKA go North on highway 101 and proceed East on highway 299 for 50 miles to Willow Creek. Take highway 96 North 47 miles to Somes Bar and proceed North 7 1/2 miles to MMR on your right. Driving time is about 2 hours from Eureka.

Doug and Heidi Cole live in the big white house on the left as you enter the ranch. Ph #530-469-3322.

Section 3: Watershed Information

1. Major Drainage Name: Klamath River

Watershed Name: Stanshaw Creek

3. Watershed area : Stanshaw Creek

4. Watershed area included in this proposal: Lower portion of Stanshaw Creek Watershed

5. Land use statement: Private lands: Ditch and pipe 580 ft from hydro plant across MMR property to inboard ditch on HWY 96. 2060 ft along Highway 96 inboard ditch, and 460 ft across level fill to top of Stanshaw Creek culvert above HWY 96 (all Cal Trans right of way).

6. Project area ownership: % private: 19 % state: 81 % federal: 0

7. Project area with landowners supportive of proposal: 100%

8. Watershed length of blue line streams: NA

9. Length of blue line streams affected by proposal: 0.5 mi.

10. Salmonids present: Coho (Oncorhyncus kisutch) , Steelhead (Oncorhyncus mykiss) , Chinook (Oncorhyncus tshawytscha)

11. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

12. Salmonids historically present: same

13. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

Limiting factors to salmonids: Stream Flow, Connectivity, Thermal Refugia

15. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

Section 4: Project Objectives

1. Background and Need for project: Currently, there is an interbasin transfer via a ditch carrying 1.5 to 3.0 cfs from Stanshaw Creek to Irving Creek, located 7.5 miles north of Somes Bar on the Klamath River. This diversion is listed in the DFG Coho Recovery Plan for the state as a high priority for restoration. Past conflict over flows, thermal refugia, and connectivity in Stanshaw Creek have highlighted the need to increase instream flows, particularly in the anadromous section below the Hwy 96 culvert. Since 2003 landowners, agency, and tribal personnel have been working together to find a solutionn that provides for salmonid habitat needs, without unduly impacting the Marble Mountain Ranch. All stakeholders concur that returning Stanshaw Creek flows above the Hwy 96 culvert is the first step to improve anadromous habitat there. Acting on this, the Karuk Tribe, NRCS and MKWC combined resources over the summer to conduct flow monitoring and engineer the return flow. There is an opportunity to capitalize on an existing development in the Cal Trans right of way that must be used in the return of Stanshaw flows. Siskiyou Telephone is laying fiber optic line sometime after April 2005, and is burying the line deep enough that the return pipe could be laid on top, thus saving the trouble of re-digging the ground and risking damage to the fiber optic line. Coordinating with the contract to lay both lines at once will greatly reduce the cost of project. Funds are needed to puchase pipe, and to cover installation fees above what it costs the contractor to install the fiber optic.

2. Known limiting factors addressed by project: Thermal Refugia, Juvenile Salmonid Habitat, Connectivity, Spawning Habitat

3. Limiting factor remediation: Increasing flows in Stanshaw Creek, particularly in the late summer months, will increase the amount of quality cold water refugial habitat. Whereas Irving Creek is channelized at its confluence with the Klamath River, Stanshaw Creek empties and ponds into a flood scoured side channel of the Klamath River. This pond is a classic example of juvenile rearing habitat: shaded and lined with overhanging vegetation and coarse woody debris. Annual summer surveys by the Karuk Tribe Fisheries Department show 500 or more juvenile coho utilizing this habitat on a good year. Surveys show intermittent use of the creek above this pool to the barrier at the Hwy 96 culvert downspout. With higher flows, this habitat should be more utilized. Higher flows will also help maintain connectivity to the mainstem Klamath. Tribal fisheries technicians have observed juvenile coho

migrating up small creeks to escape warm mainstem temperatures (Soto 2004). Large numbers of juveniles in this pool indicate that migration from the Klamath into this refugial habitat is occurring. Higher flows will also expand the availability and quality of spawning habitat. Cal Trans has identified this fish passage barrier and has plans to someday upgrade the culvert or make a bridge and restore flat spawning habitat under the Hwy 96 fill and upstream.

4. Additional objectives: This project will return diverted water to Stanshaw Creek and end the interbasin transfer to Irving Creek. It will bring a diverse group of stakeholders, tribes and agencies together for planning and implementation. These include all effected landowners, California Department of Fish and Game, Karuk Tribe of California, Natural Resources Conservation Service, NOAA Fisheries, Mid Klamath Watershed Council, US Forest Service, State Water Resources Control Board, and the Klamath Forest Alliance. By forging a working relationship on Phase I of this project, chances of reaching consensus on Phase II (screening the inlet to the MMR water sytem, piping 4500 feet of ditch to the hydro plant, decreasing electrical demands through increasing power system efficiency) will be increased.

Section 5: Project Tasks and Results

1. Detailed Project Tasks: Receive grant (March, 2005). Coordinate NEPA, and rider to Siskiyou Telephone Company's encroachment permit with CalTrans (April, 2005). Purchase materials (April 2005). Coordinate installation with Siskiyou Telephone and their contractor, agencies, tribes and landowners (May - July, 2005). Monitor project installation through before and after photos from landmarked photopoints (May - August, 2005). Write progress reports (May - August, 2005). Write final report to DFG (February, 2006).

2. Time frame: March 1, 2005 to February 28, 2006.

3. DFG acceptable protocols used in project development and completion:
   - ☒ DFG Restoration Manual
     List:
   - ☒ DFG Monitoring Protocols
     List:
   - ☐ Fish, Farms and Forestry Coalition Draft Protocols
     List:
   - ☐ PWA Road Assessment
   - ☐ Star Worksheet Road Assessment
   - ☐ V-Star residual Pool Volume
   - ☐ Juvenile summer abundance estimation
   - ☐ Out-migrant trapping and efficiency
   - ☐ California Content Standards
   - ☐ National Science Content Standards

4. Other protocols:

5. Deliverables: This project will return 1.5 - 3.0 cfs continuous flow to Stanshaw Creek above the Hwy 96 culvert.

6. Expected Quantitative Results:
   a. Stream length treated/assessed/made more accessible (distance in feet): 1800 ft
   b. Instream habitat structures to be installed (number):
   c. Fencing length to be installed/repaired (distance in feet):
   d. Road length treated/assessed (distance in miles):
   e. Stream crossings treated (number):
   f. Sediment prevented from entering the stream (volume in cubic yards):
   g. Trees planted (number):
   h. Area planted/preserved/assessed (area in acres):
   i. Public meetings (number):
   j. Public meeting attendees (number):
   k. Students trained (number):
   l. Juvenile fish produced: released:

Other products and results: Collaboration among a diverse group of stakeholders.

8. Applicant's qualifications and experience: The Mid Klamath Watershed Council has been coordinating restoration activities in the Mid Klamath Subbasin since 2001. Including the work of or subsidiary, the Orleans/Somes Bar Fire Safe Council, we have

received over $900,000 to plan and implement watershed education and restoration projects, including water quality and streamflow monitoring, thermal refugia enhancement, hazard fuels reduction, riparian planting, noxious weed removal, community education, a quarterly newsletter, and more. We recently received our non-profit status, which has allowed us to hire an office manager/accountant, and increased our ability to handle more project work.

9. Previously completed projects and outcomes under grant program: We have received one organizational support grant from the DFG, which became active in September, 2004. Our first progress report was submitted in January, 2005.

Section 6: Landowners, Access and Permits

1. Landowners granting access for project (Please attach access agreements): Doug and Heidi Cole, owners of Marble Mountain Ranch.

2. Permits: NEPA

3. Lead CEQA agency:

4. Required mitigation? ☐

Section 7: Project Budget

1. Summary Project Costs (Please attach detailed budget):

Sources of Funds	Cash	In-kind (if applicable)	Total
Fisheries Restoration Grant Program			
Other State Agencies Name(s) and amount(s) of each:			
Federal Name(s) and amount(s) of each:			
Applicant			
Other Sources Name(s) and amount(s) of each:			
Total			

2. Standardized Costs:

3. Budget justification:

4. Administrative Overhead:

Section 8: Supplemental or Specialized Information

In the following order, please attach the following required items, as appropriate to the project type:

☐ 1. Project budget according to the sample in the Solicitation. See examples and instructions on pages B10-B14. (ALL)
☐ 2. Plan view diagram. See example on page B9. (CC, CF, FL, HB, HI, HR, HS, HU, MO, PM, SC, TW, WC, WD)
☐ 3. Project location topo map, 7.5 minute. See example on page B8. (CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TE, TW, WC, WD, WP)
☐ 4. Watershed map. See Section III. (HU, MD, MO, OR, PI, PL, WP)
☐ 5. Landowner access agreements. See examples on pages B2-B7.

(All projects with on-the-ground work)

- ☐ 6. Project 10-year maintenance agreement. See examples on pages B3-B5. (HR, HU)
- ☐ 7. Written eligibility certification from CDF. See Section III. (CF)
- ☐ 8. Evaluation plan. (see Section III - ED, TE). Quality Assessment/Quality Control Plan (see Section III - MD, MO).
- ☐ 9. Land acquisition/easement information. See page 7, Section III. (HA)
- ☐ 10. Water purchase information. See pages 9-10, Section III. (WP)
- ☐ 11. Status report. See Section III. (OR, PI)
- ☐ 12. 5-year management plan (new projects only). See page 13-14, Section III. (RE)
- ☐ 13. Environmental project questionnaire. See form on pages B15-17.
  (CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TW, WC, WD, WP)
- ☐ 14. Project follows guidelines in the California Coho Salmon Recovery Strategy (RE)
  (Coho related projects **must** follow guidelines outlined in appendices H or I, view at
  http://www.dfg.ca.gov/nafwb/pubs/2003/CohoRecovery/RecoveryStrategy_20031105.pdf
- ☐ 15 Drug Free Workplace, Std 21 (Appendix B)
- ☐ 16. Non-Discrimination, Std 19 (Appendix B)
- ☐ 17. Payee Data Record, Std 204 (Appendix B)

Supplemental Information Checklist by Project Type
(Please refer to the item numbers above)

Project Type	Item Number
AC	1
CC	1, 2, 3, 5, 13, 15, 16, 17
CF	1, 2, 3, 5, 7, 13, 15, 16, 17
ED	1, 5, 8, 15, 16, 17
FL	1, 2, 3, 5, 13, 15, 16, 17
HA	1, 3, 5, 9, 13, 15, 16, 17
HB	1, 2, 3, 5, 13, 15, 16, 17
[illegible]	1, 2, 3, 5, 13, 15, 16, 17
[illegible]R	1, 2, 3, 5, 6, 13, 15, 16, 17
HS	1, 2, 3, 5, 13, 15, 16, 17
HU	1, 2, 3, 4, 5, 6, 13, 15, 16, 17
MD	1, 3, 4, 5, 13, 15, 16, 17
MO	1, 2, 3, 4, 5, 13, 15, 16, 17

Project Type	Item Number
OR	1, 4, 5, 11, 15, 16, 17
PI	1, 4, 5, 11, 15, 16, 17
PL	1, 4, 5, 15, 16, 17
PM	1, 2, 3, 5, 13, 15, 16, 17
RE	1, 3, 5, 12, 13, 14, 15, 16, 17
SC	1, 2, 3, 5, 13, 15, 16, 17
TE	1, 3, 5, 8, 15, 16, 17
TW	1, 2, 3, 5, 13, 15, 16, 17
WC	1, 2, 3, 5, 13, 15, 16, 17
WD	1, 2, 3, 5, 13, 15, 16, 17
WP	1, 3, 4, 5, 10, 13, 15, 16, 17
OR	1, 4, 5, 11, 15, 16, 17
PI	1, 4, 5, 11, 15, 16, 17

Stanshaw Flow Measurements: Above Diversion 56ft

Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/5/2016	9	5.1	2.25	0.55	1.2375	0.56	0.693	
5/5/2016	9	5.1	2.25	0.55	1.2375	0.54	0.66825	
5/5/2016	9	5.1	2.25	0.55	1.2375	0.56	0.693	
5/5/2016	9	7.4	2.25	0.65	1.4625	1.28	1.872	
5/5/2016	9	7.4	2.25	0.65	1.4625	1.41	2.062125	
5/5/2016	9	7.4	2.25	0.65	1.4625	1.35	1.974375	
5/5/2016	9	9.63	2.25	0.77	1.7325	1.7	2.94525	
5/5/2016	9	11.88	2.25	0.35	0.7875	0.71	0.559125	6.158625
5/5/2016								
5/5/2016								
5/5/2016								
5/5/2016								
5/11/2016	8	5.5	2	0.4	0.8	1.13	0.904	
5/11/2016	8	5.5	2	0.4	0.8	1.09	0.872	
5/11/2016	8	5.5	2	0.4	0.8	1.17	0.936	
5/11/2016	8	7.5	2	0.75	1.5	1.13	1.695	
5/11/2016	8	7.5	2	0.75	1.5	1.14	1.71	
5/11/2016	8	7.5	2	0.75	1.5	1.2	1.8	
5/11/2016	8	9.5	2	0.75	1.5	0.98	1.47	
5/11/2016	8	9.5	2	0.75	1.5	1	1.5	
5/11/2016	8	9.5	2	0.75	1.5	1.06	1.59	
5/11/2016	8	11.5	2	0.44	0.88	0.83	0.7304	
5/11/2016	8	11.5	2	0.44	0.88	0.87	0.7656	
5/11/2016	8	11.5	2	0.44	0.88	0.93	0.8184	**4.930466667**

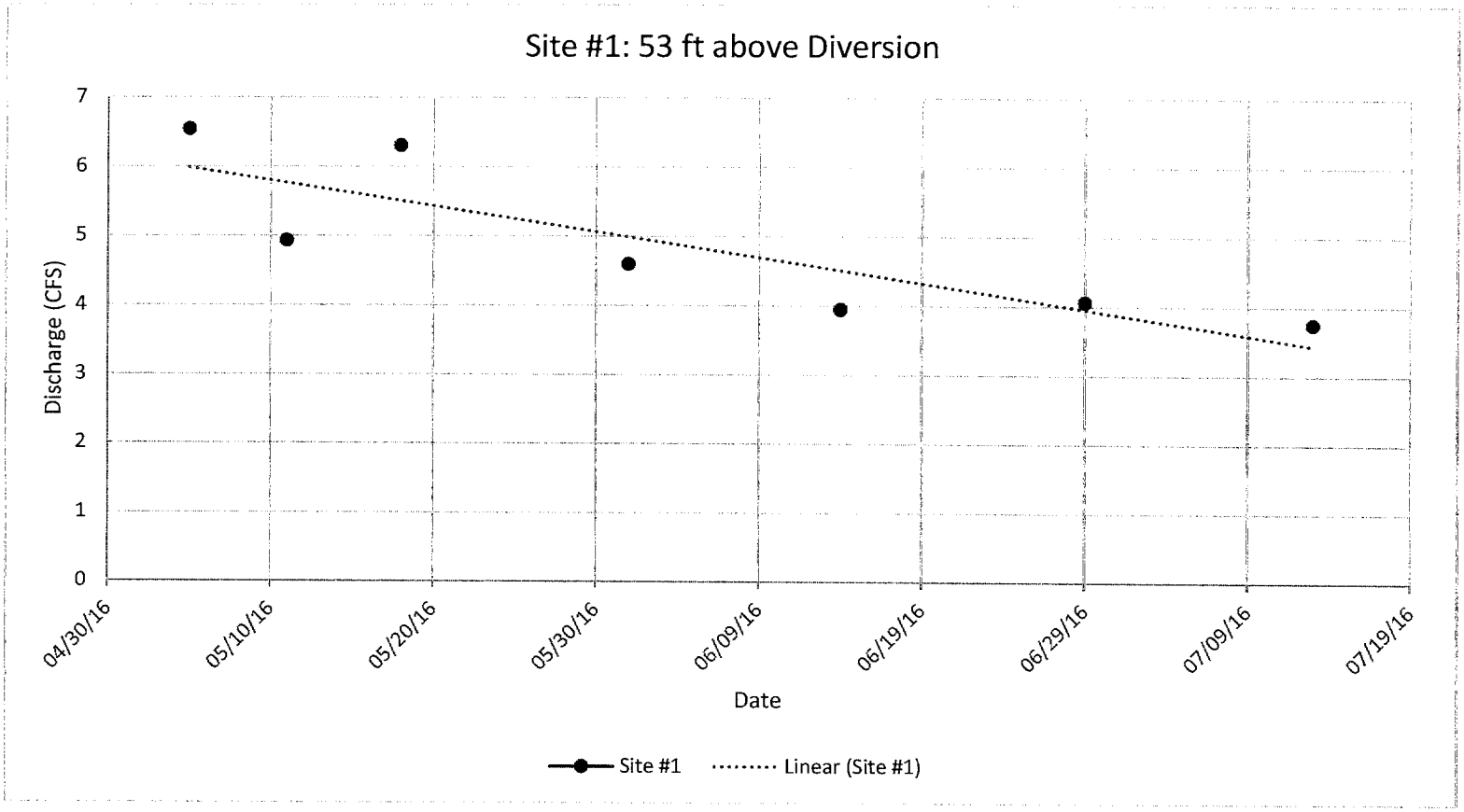
5/18/2016	8.2	6.9	2.05	0.38	0.779	0.91	0.70889	
5/18/2016	8.2	6.9	2.05	0.38	0.779	0.93	0.72447	
5/18/2016	8.2	6.9	2.05	0.38	0.779	0.92	0.71668	
5/18/2016	8.2	8.95	2.05	0.6	1.23	1.68	2.0664	
5/18/2016	8.2	8.95	2.05	0.6	1.23	1.77	2.1771	
5/18/2016	8.2	8.95	2.05	0.6	1.23	1.81	2.2263	
5/18/2016	8.2	11	2.05	0.62	1.271	2.55	3.24105	
5/18/2016	8.2	11	2.05	0.62	1.271	2.53	3.21563	
5/18/2016	8.2	11	2.05	0.62	1.271	2.56	3.25376	
5/18/2016	8.2	13.05	2.05	0.27	0.5535	0.32	0.17712	
5/18/2016	8.2	13.05	2.05	0.27	0.5535	0.41	0.226935	
5/18/2016	8.2	13.05	2.05	0.27	0.5535	0.33	0.182655	6.305663333
6/1/2016	6	4.45	1.5	0.26	0.39	1.24	0.4836	
6/1/2016	6	4.45	1.5	0.26	0.39	1.21	0.4719	
6/1/2016	6	4.45	1.5	0.26	0.39	1.19	0.4641	
6/1/2016	6	5.95	1.5	0.6	0.9	0.88	0.792	
6/1/2016	6	5.95	1.5	0.6	0.9	0.87	0.783	
6/1/2016	6	5.95	1.5	0.6	0.9	0.85	0.765	
6/1/2016	6	7.45	1.5	0.55	0.825	2.26	1.8645	
6/1/2016	6	7.45	1.5	0.55	0.825	2.11	1.74075	
6/1/2016	6	7.45	1.5	0.55	0.825	2.17	1.79025	
6/1/2016	6	8.95	1.5	0.6	0.9	1.96	1.764	
6/1/2016	6	8.95	1.5	0.6	0.9	2.04	1.836	
6/1/2016	6	8.95	1.5	0.6	0.9	2.04	1.836	4.8637
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.58	0.402636	
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.56	0.388752	
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.59	0.409578	
6/14/2016	7.1	6.57	1.78	0.49	0.8722	1.52	1.325744	
6/14/2016	7.1	6.57	1.78	0.49	0.8722	1.69	1.474018	
6/14/2016	7.1	6.57	1.78	0.49	0.8722	1.69	1.474018	
6/14/2016	7.1	8.35	1.78	0.64	1.1392	1.51	1.720192	
6/14/2016	7.1	8.35	1.78	0.64	1.1392	1.61	1.834112	
6/14/2016	7.1	8.35	1.78	0.64	1.1392	1.6	1.82272	

6/14/2016	7.1	10.13	1.78	0.35	0.623	0.66	0.41118	
6/14/2016	7.1	10.13	1.78	0.35	0.623	0.64	0.39872	
6/14/2016	7.1	10.13	1.78	0.35	0.623	0.61	0.38003	4.0139
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.26	0.62118	
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.24	0.61132	
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.35	0.66555	
6/29/2016	6.8	5.95	1.7	0.3	0.51	2.07	1.0557	
6/29/2016	6.8	5.95	1.7	0.3	0.51	2.31	1.1781	
6/29/2016	6.8	5.95	1.7	0.3	0.51	2.26	1.1526	
6/29/2016	6.8	7.65	1.7	0.5	0.85	1.95	1.6575	
6/29/2016	6.8	7.65	1.7	0.5	0.85	2.02	1.717	
6/29/2016	6.8	7.65	1.7	0.5	0.85	1.97	1.6745	
6/29/2016	6.8	9.35	1.7	0.32	0.544	0.77	0.41888	
6/29/2016	6.8	9.35	1.7	0.32	0.544	0.74	0.40256	
6/29/2016	6.8	9.35	1.7	0.32	0.544	0.72	0.39168	3.848856667
7/13/2016	6.6	4.43	1.65	0.36	0.594	0.83	0.49302	
7/13/2016	6.6	4.43	1.65	0.36	0.594	0.91	0.54054	
7/13/2016	6.6	4.43	1.65	0.36	0.594	1.01	0.59994	
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.04	1.0098	
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.22	1.0989	
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.23	1.10385	
7/13/2016	6.6	7.73	1.65	0.5	0.825	2.07	1.70775	
7/13/2016	6.6	7.73	1.65	0.5	0.825	2.05	1.69125	
7/13/2016	6.6	7.73	1.65	0.5	0.825	2.09	1.72425	
7/13/2016	6.6	9.38	1.65	0.28	0.462	0.79	0.36498	
7/13/2016	6.6	9.38	1.65	0.28	0.462	0.96	0.44352	
7/13/2016	6.6	9.38	1.65	0.28	0.462	0.91	0.42042	3.73274

Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Average Discharge (2)	Total Discharge (2)	Average Total Discharge of Measurements
5/5/2016	4.73	9	2.25	0.31	0.6975	0.55	0.383625			
5/5/2016	4.73	9	2.25	0.31	0.6975	0.99	0.690525			
5/5/2016	4.73	9	2.25	0.31	0.6975	0.69	0.481275	0.518475		
5/5/2016	6.98	9	2.25	0.89	2.0025	1.72	3.4443			
5/5/2016	6.98	9	2.25	0.89	2.0025	1.62	3.24405			
5/5/2016	6.98	9	2.25	0.89	2.0025	1.73	3.464325	3.384225		
5/5/2016	9.23	9	2.25	0.83	1.8675	1.13	2.110275			
5/5/2016	9.23	9	2.25	0.83	1.8675	1.24	2.3157			
5/5/2016	9.23	9	2.25	0.83	1.8675	1.26	2.35305	2.259675		
5/5/2016	11.48	9	2.25	0.5	1.125	0.65	0.73125			
5/5/2016	11.48	9	2.25	0.5	1.125	0.62	0.6975			
5/5/2016	11.48	9	2.25	0.5	1.125	0.79	0.88875	0.7725	6.934875	**6.54675**
										4.930466667

										6.305663333
6/1/2016	6	4.45	1.5	0.46	0.69	0.57	0.3933			
6/1/2016	6	4.45	1.5	0.46	0.69	0.63	0.4347			
6/1/2016	6	4.45	1.5	0.46	0.69	0.61	0.4209			
6/1/2016	6	5.95	1.5	0.62	0.93	0.88	0.8184			
6/1/2016	6	5.95	1.5	0.62	0.93	0.83	0.7719			
6/1/2016	6	5.95	1.5	0.62	0.93	0.76	0.7068			
6/1/2016	6	7.45	1.5	0.65	0.975	2.03	1.97925			
6/1/2016	6	7.45	1.5	0.65	0.975	2.08	2.028			
6/1/2016	6	7.45	1.5	0.65	0.975	2.24	2.184			
6/1/2016	6	8.95	1.5	0.52	0.78	1.6	1.248			
6/1/2016	6	8.95	1.5	0.52	0.78	1.25	0.975			
6/1/2016	6	8.95	1.5	0.52	0.78	1.33	1.0374	4.33255		4.598125
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.64	0.444288			
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.64	0.444288			
6/14/2016	7.1	4.79	1.78	0.39	0.6942	0.67	0.465114			
6/14/2016	7.1	6.57	1.78	0.58	1.0324	1.07	1.104668			
6/14/2016	7.1	6.57	1.78	0.58	1.0324	1.05	1.08402			
6/14/2016	7.1	6.57	1.78	0.58	1.0324	1.04	1.073696			
6/14/2016	7.1	8.35	1.78	0.68	1.2104	1.55	1.87612			
6/14/2016	7.1	8.35	1.78	0.68	1.2104	1.59	1.924536			
6/14/2016	7.1	8.35	1.78	0.68	1.2104	1.58	1.912432			

6/14/2016	7.1	10.13	1.78	0.34	0.6052	0.6	0.36312			
6/14/2016	7.1	10.13	1.78	0.34	0.6052	0.79	0.478108			
6/14/2016	7.1	10.13	1.78	0.34	0.6052	0.78	0.472056	3.880815333		3.947357667
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.34	0.66062			
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.5	0.7395			
6/29/2016	6.8	4.25	1.7	0.29	0.493	1.52	0.74936			
6/29/2016	6.8	5.95	1.7	0.32	0.544	2.22	1.20768			
6/29/2016	6.8	5.95	1.7	0.32	0.544	1.99	1.08256			
6/29/2016	6.8	5.95	1.7	0.32	0.544	2.04	1.10976			
6/29/2016	6.8	7.65	1.7	0.55	0.935	2.19	2.04765			
6/29/2016	6.8	7.65	1.7	0.55	0.935	2.19	2.04765			
6/29/2016	6.8	7.65	1.7	0.55	0.935	2.21	2.06635			
6/29/2016	6.8	9.35	1.7	0.3	0.51	0.77	0.3927			
6/29/2016	6.8	9.35	1.7	0.3	0.51	0.71	0.3621			
6/29/2016	6.8	9.35	1.7	0.3	0.51	0.69	0.3519	4.27261		4.060733333
7/13/2016	6.6	4.43	1.65	0.3	0.495	0.87	0.43065			
7/13/2016	6.6	4.43	1.65	0.3	0.495	0.89	0.44055			
7/13/2016	6.6	4.43	1.65	0.3	0.495	0.89	0.44055			
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.08	1.0296			
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.1	1.0395			
7/13/2016	6.6	6.08	1.65	0.3	0.495	2.13	1.05435			
7/13/2016	6.6	7.73	1.65	0.51	0.8415	2.15	1.809225			
7/13/2016	6.6	7.73	1.65	0.51	0.8415	2.22	1.86813			
7/13/2016	6.6	7.73	1.65	0.51	0.8415	2.16	1.81764			
7/13/2016	6.6	9.38	1.65	0.2	0.33	0.91	0.3003			
7/13/2016	6.6	9.38	1.65	0.2	0.33	2.13	0.7029			
7/13/2016	6.6	9.38	1.65	0.2	0.33	1.03	0.3399	3.757765		3.7452525


Site #1: 53 ft above Diversion
Discharge (CFS)
0
1
2
3
4
5
6
7
04/30/16
05/10/16
05/20/16
05/30/16
06/09/16
06/19/16
06/29/16
07/09/16
07/19/16
Date
Site #1
Linear (Site #1)

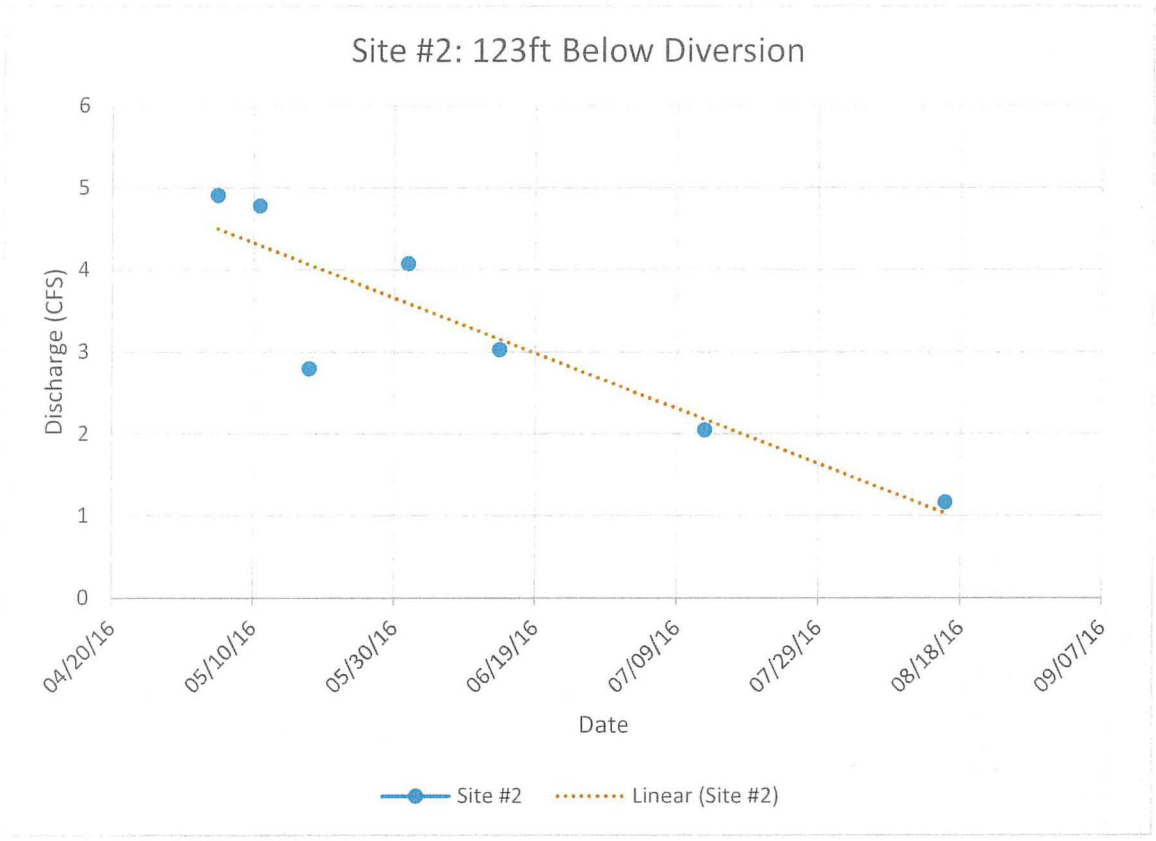
Stanshaw Flow Measurements: Below Diversion (126 ft)

Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/5/2016	9.4	4.18	2.35	0.21	0.4935	0.43	0.212205	
5/5/2016	9.4	4.18	2.35	0.21	0.4935	0.49	0.241815	
5/5/2016	9.4	4.18	2.35	0.21	0.4935	0.46	0.22701	
5/5/2016	9.4	6.53	2.35	0.7	1.645	1.16	1.9082	
5/5/2016	9.4	6.53	2.35	0.7	1.645	1.13	1.85885	
5/5/2016	9.4	6.53	2.35	0.7	1.645	1.19	1.95755	
5/5/2016	9.4	8.88	2.35	0.45	1.0575	1.5	1.58625	
5/5/2016	9.4	8.88	2.35	0.45	1.0575	1.44	1.5228	
5/5/2016	9.4	8.88	2.35	0.45	1.0575	1.47	1.554525	
5/5/2016	9.4	11.23	2.35	0.35	0.8225	1.46	1.20085	
5/5/2016	9.4	11.23	2.35	0.35	0.8225	1.44	1.1844	
5/5/2016	9.4	11.23	2.35	0.35	0.8225	1.46	1.20085	**4.88510167**
5/11/2016	8	8	2	0.42	0.84	1.55	1.302	
5/11/2016	8	8	2	0.42	0.84	1.44	1.2096	
5/11/2016	8	8	2	0.42	0.84	1.62	1.3608	
5/11/2016	8	10	2	0.58	1.16	1.48	1.7168	
5/11/2016	8	10	2	0.58	1.16	1.4	1.624	
5/11/2016	8	10	2	0.58	1.16	1.57	1.8212	
5/11/2016	8	12	2	0.4	0.8	1.11	0.888	
5/11/2016	8	12	2	0.4	0.8	1.14	0.912	
5/11/2016	8	12	2	0.4	0.8	1.13	0.904	
5/11/2016	8	14	2	0.37	0.74	1.44	1.0656	
5/11/2016	8	14	2	0.37	0.74	1.44	1.0656	
5/11/2016	8	14	2	0.37	0.74	1.36	1.0064	**4.95866667**
5/18/2016	8.9	5.3	2.225	0.26	0.5785	0.35	0.202475	
5/18/2016	8.9	5.3	2.225	0.26	0.5785	0.39	0.225615	
5/18/2016	8.9	5.3	2.225	0.26	0.5785	0.37	0.214045	
5/18/2016	8.9	7.52	2.225	0.6	1.335	0.5	0.6675	
5/18/2016	8.9	7.52	2.225	0.6	1.335	0.38	0.5073	
5/18/2016	8.9	7.52	2.225	0.6	1.335	0.51	0.68085	
5/18/2016	8.9	9.75	2.225	0.35	0.77875	1.08	0.84105	
5/18/2016	8.9	9.75	2.225	0.35	0.77875	0.99	0.7709625	
5/18/2016	8.9	9.75	2.225	0.35	0.77875	1.15	0.8955625	
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.33	0.887775	
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.37	0.914475	
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.41	0.941175	**2.58292833**
6/1/2016	9	6.43	2.25	0.31	0.6975	0.78	0.54405	
6/1/2016	9	6.43	2.25	0.31	0.6975	0.69	0.481275	
6/1/2016	9	6.43	2.25	0.31	0.6975	0.84	0.5859	
6/1/2016	9	8.68	2.25	0.59	1.3275	1.07	1.420425	

6/1/2016	9	8.68	2.25	0.59	1.3275	1.07	1.420425	
6/1/2016	9	8.68	2.25	0.59	1.3275	1.11	1.473525	
6/1/2016	9	10.93	2.25	0.39	0.8775	1.18	1.03545	
6/1/2016	9	10.93	2.25	0.39	0.8775	1.07	0.938925	
6/1/2016	9	10.93	2.25	0.39	0.8775	1.18	1.03545	
6/1/2016	9	13.18	2.25	0.38	0.855	1.47	1.25685	
6/1/2016	9	13.18	2.25	0.38	0.855	1.47	1.25685	
6/1/2016	9	13.18	2.25	0.38	0.855	1.46	1.2483	**4.232475**
6/14/2016	9.1	5.84	2.275	0.25	0.56875	0.47	0.2673125	
6/14/2016	9.1	5.84	2.275	0.25	0.56875	0.45	0.2559375	
6/14/2016	9.1	5.84	2.275	0.25	0.56875	0.49	0.2786875	
6/14/2016	9.1	8.59	2.275	0.58	1.3195	1.17	1.543815	
6/14/2016	9.1	8.59	2.275	0.58	1.3195	1.17	1.543815	
6/14/2016	9.1	8.59	2.275	0.58	1.3195	1.21	1.596595	
6/14/2016	9.1	10.86	2.275	0.34	0.7735	0.93	0.719355	
6/14/2016	9.1	10.86	2.275	0.34	0.7735	0.92	0.71162	
6/14/2016	9.1	10.86	2.275	0.34	0.7735	0.92	0.71162	
6/14/2016	9.1	13.14	2.275	0.22	0.5005	0.92	0.46046	
6/14/2016	9.1	13.14	2.275	0.22	0.5005	0.96	0.48048	
6/14/2016	9.1	13.14	2.275	0.22	0.5005	1.02	0.51051	**3.02673583**
7/13/2016	8.5	5.57	2.13	0.09	0.1917	1.07	0.205119	
7/13/2016	8.5	5.57	2.13	0.09	0.1917	0.9	0.17253	
7/13/2016	8.5	5.57	2.13	0.09	0.1917	0.97	0.185949	
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.58	0.605346	
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.7	0.73059	
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.87	0.908019	
7/13/2016	8.5	9.83	2.13	0.3	0.639	0.72	0.46008	
7/13/2016	8.5	9.83	2.13	0.3	0.639	0.73	0.46647	
7/13/2016	8.5	9.83	2.13	0.3	0.639	0.62	0.39618	
7/13/2016	8.5	11.96	2.13	0.23	0.4899	1.27	0.622173	
7/13/2016	8.5	11.96	2.13	0.23	0.4899	1.3	0.63687	
7/13/2016	8.5	11.96	2.13	0.23	0.4899	1.19	0.582981	**1.990769**
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.51	0.25704	
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.52	0.26208	
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.46	0.23184	
8/16/2016	7.2	6	1.8	0.5	0.9	0.33	0.297	
8/16/2016	7.2	6	1.8	0.5	0.9	0.33	0.297	
8/16/2016	7.2	6	1.8	0.5	0.9	0.34	0.306	
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.65	0.2925	
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.69	0.3105	
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.69	0.3105	
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.73	0.31536	
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.7	0.3024	
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.74	0.31968	**1.1673**

Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurement
5/5/2016	9.2	4.7	2.3	0.33	0.759	0.79	0.59961		
5/5/2016	9.2	4.7	2.3	0.33	0.759	0.9	0.6831		
5/5/2016	9.2	4.7	2.3	0.33	0.759	0.78	0.59202		
5/5/2016	9.2	7	2.3	0.68	1.564	1.28	2.00192		
5/5/2016	9.2	7	2.3	0.68	1.564	1.25	1.955		
5/5/2016	9.2	7	2.3	0.68	1.564	1.34	2.09576		
5/5/2016	9.2	9.3	2.3	0.41	0.943	1.21	1.14103		
5/5/2016	9.2	9.3	2.3	0.41	0.943	1.25	1.17875		
5/5/2016	9.2	9.3	2.3	0.41	0.943	1.25	1.17875		
5/5/2016	9.2	11.6	2.3	0.35	0.805	1.35	1.08675		
5/5/2016	9.2	11.6	2.3	0.35	0.805	1.45	1.16725		
5/5/2016	9.2	11.6	2.3	0.35	0.805	1.4	1.127	4.935646667	**4.910374167**
5/11/2016	8	8	2	0.4	0.8	1.57	1.256		
5/11/2016	8	8	2	0.4	0.8	1.46	1.168		
5/11/2016	8	8	2	0.4	0.8	1.52	1.216		
5/11/2016	8	10	2	0.58	1.16	1.49	1.7284		
5/11/2016	8	10	2	0.58	1.16	1.43	1.6588		
5/11/2016	8	10	2	0.58	1.16	1.43	1.6588		
5/11/2016	8	12	2	0.4	0.8	0.92	0.736		
5/11/2016	8	12	2	0.4	0.8	0.84	0.672		
5/11/2016	8	12	2	0.4	0.8	0.82	0.656		
5/11/2016	8	14	2	0.38	0.76	1.35	1.026		
5/11/2016	8	14	2	0.38	0.76	1.37	1.0412		
5/11/2016	8	14	2	0.38	0.76	1.3	0.988	**4.601733333**	**4.7802**
5/18/2016	8.9	5.3	2.225	0.27	0.6008	0.57	0.342428		
5/18/2016	8.9	5.3	2.225	0.27	0.6008	0.47	0.282353		
5/18/2016	8.9	5.3	2.225	0.27	0.6008	0.35	0.210263		
5/18/2016	8.9	7.52	2.225	0.61	1.3573	0.57	0.773633		
5/18/2016	8.9	7.52	2.225	0.61	1.3573	0.68	0.92293		
5/18/2016	8.9	7.52	2.225	0.61	1.3573	0.7	0.950075		
5/18/2016	8.9	9.75	2.225	0.37	0.8233	1.14	0.938505		
5/18/2016	8.9	9.75	2.225	0.37	0.8233	0.87	0.716228		
5/18/2016	8.9	9.75	2.225	0.37	0.8233	1.09	0.897343		
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.5	1.00125		
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.49	0.994575		
5/18/2016	8.9	11.98	2.225	0.3	0.6675	1.48	0.9879	3.005826667	**2.7943775**
6/1/2016	9	6.43	2.25	0.32	0.72	0.66	0.4752		
6/1/2016	9	6.43	2.25	0.32	0.72	0.7	0.504		
6/1/2016	9	6.43	2.25	0.32	0.72	0.58	0.4176		
6/1/2016	9	8.68	2.25	0.6	1.35	1.19	1.6065		

6/1/2016	9	8.68	2.25	0.6	1.35	1.14	1.539		
6/1/2016	9	8.68	2.25	0.6	1.35	1.05	1.4175		
6/1/2016	9	10.93	2.25	0.38	0.855	1.15	0.98325		
6/1/2016	9	10.93	2.25	0.38	0.855	1	0.855		
6/1/2016	9	10.93	2.25	0.38	0.855	1.03	0.88065		
6/1/2016	9	13.18	2.25	0.31	0.6975	1.48	1.0323		
6/1/2016	9	13.18	2.25	0.31	0.6975	1.44	1.0044		
6/1/2016	9	13.18	2.25	0.31	0.6975	1.48	1.0323	3.9159	**4.0741875**
6/14/2016	9.1	5.84	2.275	0.25	0.5688	0.59	0.335563		
6/14/2016	9.1	5.84	2.275	0.25	0.5688	0.59	0.335563		
6/14/2016	9.1	5.84	2.275	0.25	0.5688	0.52	0.29575		
6/14/2016	9.1	8.59	2.275	0.6	1.365	1.14	1.5561		
6/14/2016	9.1	8.59	2.275	0.6	1.365	1.17	1.59705		
6/14/2016	9.1	8.59	2.275	0.6	1.365	1.15	1.56975		
6/14/2016	9.1	10.86	2.275	0.29	0.6598	0.91	0.600373		
6/14/2016	9.1	10.86	2.275	0.29	0.6598	0.97	0.639958		
6/14/2016	9.1	10.86	2.275	0.29	0.6598	0.89	0.587178		
6/14/2016	9.1	13.14	2.275	0.2	0.455	1.15	0.52325		
6/14/2016	9.1	13.14	2.275	0.2	0.455	1.11	0.50505		
6/14/2016	9.1	13.14	2.275	0.2	0.455	1.15	0.52325	3.022944167	**3.02484**
7/13/2016	8.5	5.57	2.13	0.09	0.1917	0.92	0.176364		
7/13/2016	8.5	5.57	2.13	0.09	0.1917	0.99	0.189783		
7/13/2016	8.5	5.57	2.13	0.09	0.1917	0.92	0.176364		
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.86	0.897582		
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.92	0.960204		
7/13/2016	8.5	7.7	2.13	0.49	1.0437	0.95	0.991515		
7/13/2016	8.5	9.83	2.13	0.22	0.4686	0.63	0.295218		
7/13/2016	8.5	9.83	2.13	0.22	0.4686	0.68	0.318648		
7/13/2016	8.5	9.83	2.13	0.22	0.4686	0.63	0.295218		
7/13/2016	8.5	11.96	2.13	0.25	0.5325	1.25	0.665625		
7/13/2016	8.5	11.96	2.13	0.25	0.5325	1.25	0.665625		
7/13/2016	8.5	11.96	2.13	0.25	0.5325	1.26	0.67095	2.101032	**2.0459005**
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.55	0.2772		
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.5	0.252		
8/16/2016	7.2	4.2	1.8	0.28	0.504	0.47	0.23688		
8/16/2016	7.2	6	1.8	0.5	0.9	0.26	0.234		
8/16/2016	7.2	6	1.8	0.5	0.9	0.31	0.279		
8/16/2016	7.2	6	1.8	0.5	0.9	0.36	0.324		
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.65	0.2925		
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.71	0.3195		
8/16/2016	7.2	7.8	1.8	0.25	0.45	0.71	0.3195		
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.73	0.31536		
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.74	0.31968		
8/16/2016	7.2	9.6	1.8	0.24	0.432	0.74	0.31968	1.1631	**1.1652**


Site #2: 123ft Below Diversion
Discharge (CFS)
6
5
4
3
2
1
0
04/20/16
05/10/16
05/30/16
06/19/16
07/09/16
07/29/16
08/18/16
09/07/16
Date
Site #2
Linear (Site #2)

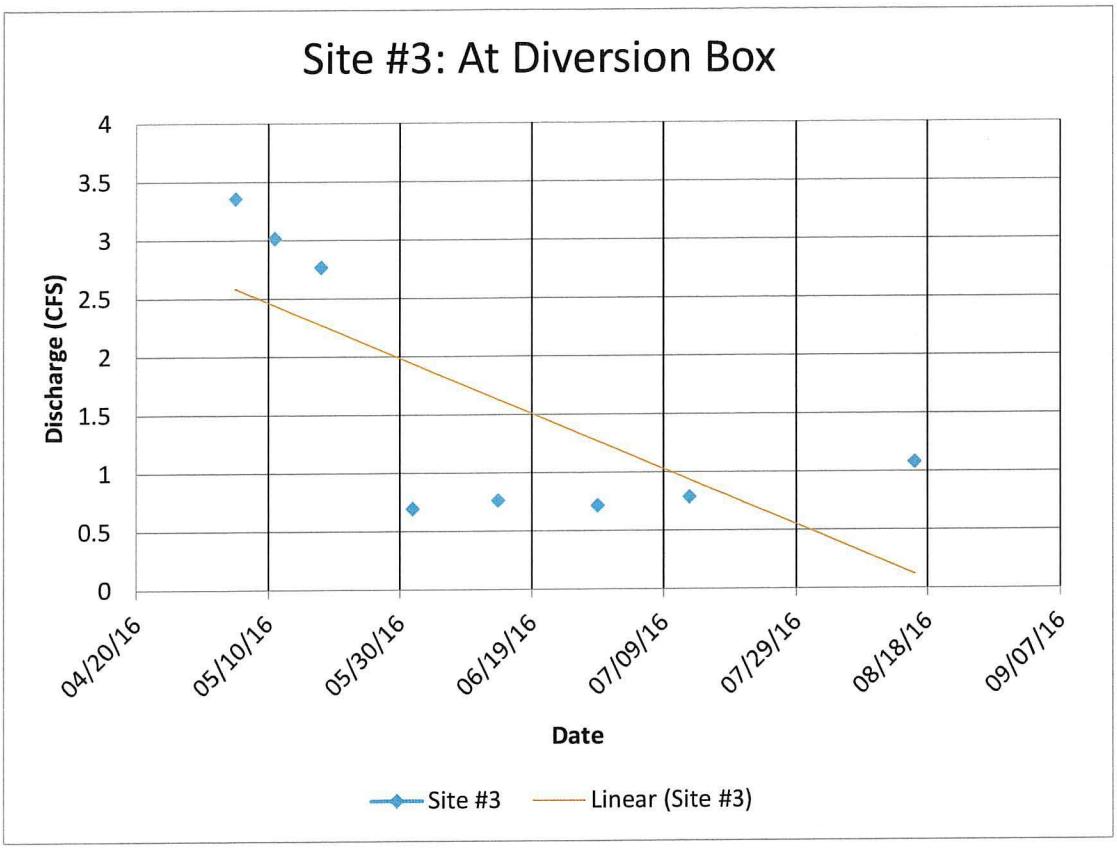
haw Flow Measurements: At Diversio

Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/5/2016	2.52	0.42	0.84	0.58	0.4872	2.3	1.12056	
5/5/2016	2.52	0.42	0.84	0.58	0.4872	2.29	1.115688	
5/5/2016	2.52	0.42	0.84	0.58	0.4872	2.23	1.086456	
5/5/2016	2.52	1.26	0.84	0.65	0.546	2.38	1.29948	
5/5/2016	2.52	1.26	0.84	0.65	0.546	2.39	1.30494	
5/5/2016	2.52	1.26	0.84	0.65	0.546	2.42	1.32132	
5/5/2016	2.52	2.1	0.84	0.52	0.4368	2.2	0.96096	
5/5/2016	2.52	2.1	0.84	0.52	0.4368	2.2	0.96096	
5/5/2016	2.52	2.1	0.84	0.52	0.4368	2.22	0.969696	3.38002
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.31	1.15038	
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.38	1.18524	
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.39	1.19022	
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.16	1.021896	
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.18	1.031358	
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.2	1.04082	
5/11/2016	2.5	5.08	0.83	0.54	0.4482	1.86	0.833652	
5/11/2016	2.5	5.08	0.83	0.54	0.4482	1.76	0.788832	
5/11/2016	2.5	5.08	0.83	0.54	0.4482	1.78	0.797796	3.013398
5/18/2016	2.5	0.42	0.83	0.58	0.4814	2.24	1.078336	
5/18/2016	2.5	0.42	0.83	0.58	0.4814	2.24	1.078336	
5/18/2016	2.5	0.42	0.83	0.58	0.4814	2.16	1.039824	
5/18/2016	2.5	1.25	0.83	0.53	0.4399	2.08	0.914992	
5/18/2016	2.5	1.25	0.83	0.53	0.4399	2.09	0.919391	
5/18/2016	2.5	1.25	0.83	0.53	0.4399	2.12	0.932588	
5/18/2016	2.5	2.08	0.83	0.51	0.4233	1.63	0.689979	
5/18/2016	2.5	2.08	0.83	0.51	0.4233	1.74	0.736542	
5/18/2016	2.5	2.08	0.83	0.51	0.4233	1.72	0.728076	2.706021333
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.41	0.10209	
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.3	0.0747	
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.45	0.11205	
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.42	0.35358	
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.42	0.35358	
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.41	0.35109	
6/1/2016	2.5	2.08	0.83	0.3	0.249	1.01	0.25149	
6/1/2016	2.5	2.08	0.83	0.3	0.249	1	0.249	
6/1/2016	2.5	2.08	0.83	0.3	0.249	1.04	0.25896	0.70218
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.44	0.10956	
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.4	0.0996	
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.4	0.0996	

6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.71	0.397404	
6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.63	0.378812	
6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.62	0.376488	
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.24	0.2573	
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.1	0.22825	
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.19	0.246925	0.731313
6/29/2016	2.5	0.42	0.83	0.28	0.2324	0.62	0.144088	
6/29/2016	2.5	0.42	0.83	0.28	0.2324	0.69	0.160356	
6/29/2016	2.5	0.42	0.83	0.28	0.2324	0.73	0.169652	
6/29/2016	2.5	1.25	0.83	0.26	0.2158	1.73	0.373334	
6/29/2016	2.5	1.25	0.83	0.26	0.2158	1.74	0.375492	
6/29/2016	2.5	1.25	0.83	0.26	0.2158	1.6	0.34528	
6/29/2016	2.5	2.08	0.83	0.22	0.1826	1.12	0.204512	
6/29/2016	2.5	2.08	0.83	0.22	0.1826	1.21	0.220946	
6/29/2016	2.5	2.08	0.83	0.22	0.1826	1.21	0.220946	0.738202
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.62	0.159526	
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.68	0.174964	
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.68	0.174964	
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.24	0.30876	
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.24	0.30876	
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.54	0.38346	
7/13/2016	2.5	2.08	0.83	0.24	0.1992	1.34	0.266928	
7/13/2016	2.5	2.08	0.83	0.24	0.1992	1.23	0.245016	
7/13/2016	2.5	2.08	0.83	0.24	0.1992	1.2	0.23904	0.753806
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.31	0.315317	
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.41	0.339387	
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.32	0.317724	
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.89	0.47061	
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.89	0.47061	
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.92	0.47808	
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.47	0.305025	
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.47	0.305025	
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.53	0.317475	1.106417667

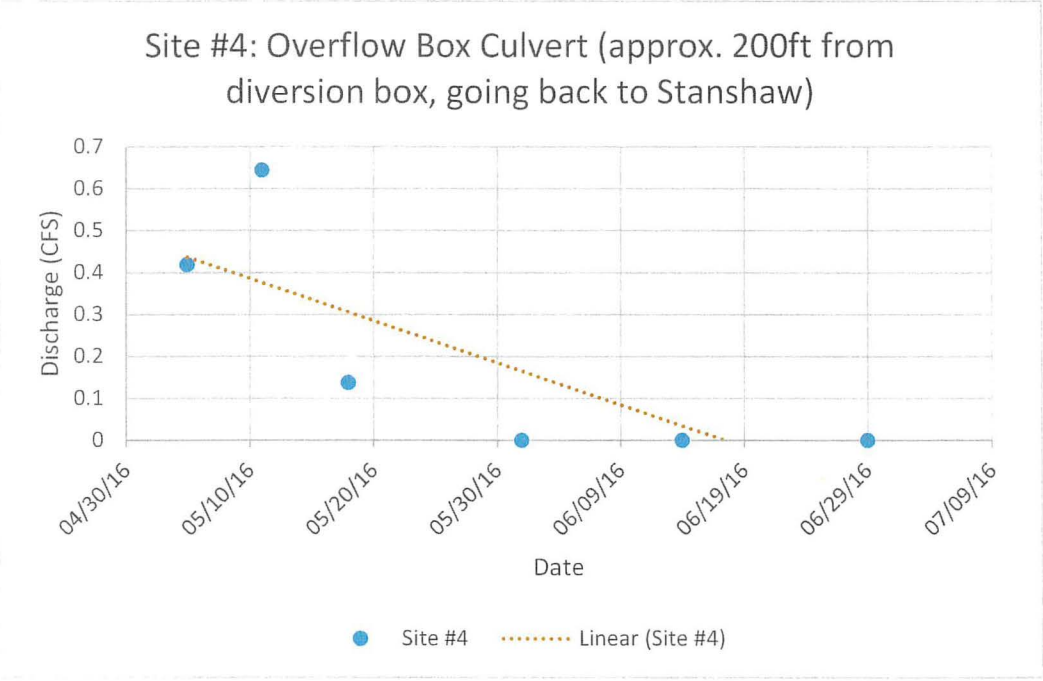
Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurements
5/5/2016	2.52	0.42	0.84	0.56	0.4704	2.48	1.166592		
5/5/2016	2.52	0.42	0.84	0.56	0.4704	2.68	1.260672		
5/5/2016	2.52	0.42	0.84	0.56	0.4704	2.72	1.279488		
5/5/2016	2.52	1.26	0.84	0.58	0.4872	2.38	1.159536		
5/5/2016	2.52	1.26	0.84	0.58	0.4872	2.38	1.159536		
5/5/2016	2.52	1.26	0.84	0.58	0.4872	2.41	1.174152		
5/5/2016	2.52	2.1	0.84	0.51	0.4284	2.18	0.933912		
5/5/2016	2.52	2.1	0.84	0.51	0.4284	2.21	0.946764		
5/5/2016	2.52	2.1	0.84	0.51	0.4284	2.14	0.916776	3.332476	**3.356248**
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.3	1.1454		
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.35	1.1703		
5/11/2016	2.5	3.42	0.83	0.6	0.498	2.29	1.14042		
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.22	1.050282		
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.24	1.059744		
5/11/2016	2.5	4.25	0.83	0.57	0.4731	2.19	1.036089		
5/11/2016	2.5	5.08	0.83	0.56	0.4648	1.75	0.8134		
5/11/2016	2.5	5.08	0.83	0.56	0.4648	1.75	0.8134		
5/11/2016	2.5	5.08	0.83	0.56	0.4648	1.77	0.822696	3.017244	**3.015320833**
5/18/2016	2.5	0.42	0.83	0.53	0.4399	2.36	1.038164		
5/18/2016	2.5	0.42	0.83	0.53	0.4399	2.38	1.046962		
5/18/2016	2.5	0.42	0.83	0.53	0.4399	2.36	1.038164		
5/18/2016	2.5	1.25	0.83	0.5	0.415	2.45	1.01675		
5/18/2016	2.5	1.25	0.83	0.5	0.415	2.37	0.98355		
5/18/2016	2.5	1.25	0.83	0.5	0.415	2.38	0.9877		
5/18/2016	2.5	2.08	0.83	0.48	0.3984	1.97	0.784848		
5/18/2016	2.5	2.08	0.83	0.48	0.3984	2	0.7968		
5/18/2016	2.5	2.08	0.83	0.48	0.3984	2	0.7968	2.829913	**2.767967**
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.52	0.12948		
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.52	0.12948		
6/1/2016	2.5	0.42	0.83	0.3	0.249	0.42	0.10458		
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.32	0.32868		
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.3	0.3237		
6/1/2016	2.5	1.25	0.83	0.3	0.249	1.39	0.34611		
6/1/2016	2.5	2.08	0.83	0.3	0.249	0.99	0.24651		
6/1/2016	2.5	2.08	0.83	0.3	0.249	0.96	0.23904		
6/1/2016	2.5	2.08	0.83	0.3	0.249	0.88	0.21912	0.6889	**0.69554**
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.69	0.17181		
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.55	0.13695		
6/14/2016	2.5	0.42	0.83	0.3	0.249	0.62	0.15438		

6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.71	0.397404		
6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.67	0.388108		
6/14/2016	2.5	1.25	0.83	0.28	0.2324	1.7	0.39508		
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.14	0.23655		
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.2	0.249		
6/14/2016	2.5	2.08	0.83	0.25	0.2075	1.26	0.26145	0.796911	**0.764111833**
6/29/2016	2.5	0.42	0.83	0.3	0.249	0.52	0.12948		
6/29/2016	2.5	0.42	0.83	0.3	0.249	0.35	0.08715		
6/29/2016	2.5	0.42	0.83	0.3	0.249	0.38	0.09462		
6/29/2016	2.5	1.25	0.83	0.28	0.2324	1.57	0.364868		
6/29/2016	2.5	1.25	0.83	0.28	0.2324	1.35	0.31374		
6/29/2016	2.5	1.25	0.83	0.28	0.2324	1.36	0.316064		
6/29/2016	2.5	2.08	0.83	0.25	0.2075	1.31	0.271825		
6/29/2016	2.5	2.08	0.83	0.25	0.2075	1.27	0.263525		
6/29/2016	2.5	2.08	0.83	0.25	0.2075	1.17	0.242775	0.694682	**0.716442167**
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.82	0.210986		
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.92	0.236716		
7/13/2016	2.5	0.42	0.83	0.31	0.2573	0.71	0.182683		
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.58	0.39342		
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.57	0.39093		
7/13/2016	2.5	1.25	0.83	0.3	0.249	1.48	0.36852		
7/13/2016	2.5	2.08	0.83	0.24	0.1992	0.86	0.171312		
7/13/2016	2.5	2.08	0.83	0.24	0.1992	1.21	0.241032		
7/13/2016	2.5	2.08	0.83	0.24	0.1992	1.32	0.262944	0.819514	**0.786660167**
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.16	0.279212		
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.2	0.28884		
8/16/2016	2.5	0.42	0.83	0.29	0.2407	1.15	0.276805		
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.96	0.48804		
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.96	0.48804		
8/16/2016	2.5	1.25	0.83	0.3	0.249	1.96	0.48804		
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.42	0.29465		
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.32	0.2739		
8/16/2016	2.5	2.08	0.83	0.25	0.2075	1.33	0.275975	1.051167	**1.0787925**


Site #3: At Diversion Box
Discharge (CFS)
4
3.5
3
2.5
2
1.5
1
0.5
0
04/20/16
05/10/16
05/30/16
06/19/16
07/09/16
07/29/16
08/18/16
09/07/16
Date
Site #3
Linear (Site #3)

nshaw Flow Measurements: At Overflow I

Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/5/2016	2.04	0.34	0.68	0.35	0.238	0.87	0.20706	
5/5/2016	2.04	0.34	0.68	0.35	0.238	0.79	0.18802	
5/5/2016	2.04	0.34	0.68	0.35	0.238	0.91	0.21658	
5/5/2016	2.04	1.02	0.68	0.36	0.2448	0.57	0.139536	
5/5/2016	2.04	1.02	0.68	0.36	0.2448	0.55	0.13464	
5/5/2016	2.04	1.02	0.68	0.36	0.2448	0.72	0.176256	
5/5/2016	2.04	1.7	0.68	0.36	0.2448	0.3	0.07344	
5/5/2016	2.04	1.7	0.68	0.36	0.2448	0.29	0.070992	
5/5/2016	2.04	1.7	0.68	0.36	0.2448	0.2	0.04896	0.418494667
5/11/2016	2.1		2.1	0.33	0.693	0.78	0.54054	
5/11/2016	2.1		2.1	0.33	0.693	0.91	0.63063	
5/11/2016	2.1		2.1	0.33	0.693	1	0.693	0.62139
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.38	0.14364	
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.38	0.14364	
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.38	0.14364	0.14364
6/1/2016	0	0	0	0	0	0	0	0
6/14/2016	0	0	0	0	0	0	0	0
6/29/2016	0	0	0	0	0	0	0	0



Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurements
									0.418494667
5/11/2016	2.1		2.1	0.33	0.693	0.97	0.67221		
5/11/2016	2.1		2.1	0.33	0.693	0.86	0.59598		
5/11/2016	2.1		2.1	0.33	0.693	1.06	0.73458	0.66759	**0.64449**
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.36	0.13608		
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.38	0.14364		
5/18/2016	2.1	1.05	2.1	0.18	0.378	0.3	0.1134	0.13104	**0.13734**
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0

Barely any water spilling over. Not enough flow to register with Swoffer

Barely any water spilling over. Not enough flow to register with Swoffer

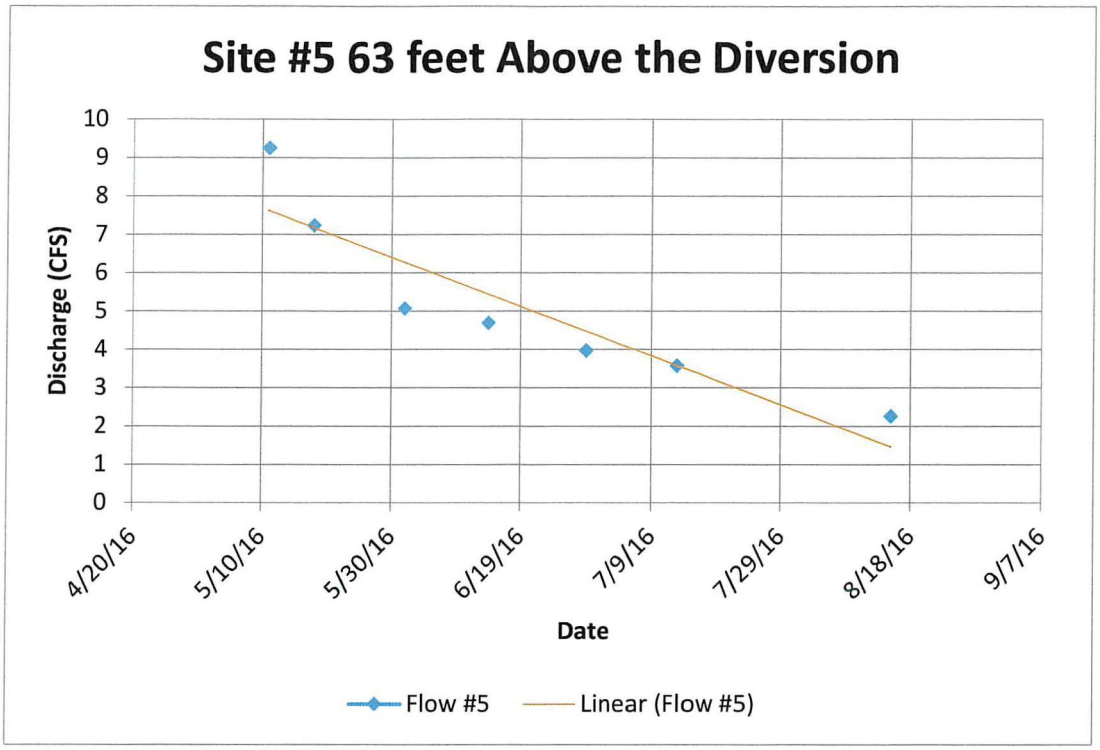
Stanshaw Flow Measurement : #5 Above Log near #1

Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.45	1.74	
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.34	1.608	
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.37	1.644	
5/11/2016	4.5	6.25	1.5	0.83	1.245	2.66	3.3117	
5/11/2016	4.5	6.25	1.5	0.83	1.245	2.71	3.37395	
5/11/2016	4.5	6.25	1.5	0.83	1.245	2.73	3.39885	
5/11/2016	4.5	7.75	1.5	0.88	1.32	3.18	4.1976	
5/11/2016	4.5	7.75	1.5	0.88	1.32	3.2	4.224	
5/11/2016	4.5	7.75	1.5	0.88	1.32	3.01	3.9732	**9.1571**
5/18/2016	4.5	5.1	1.125	0.65	0.7313	1.45	1.0603125	
5/18/2016	4.5	5.1	1.125	0.65	0.7313	1.44	1.053	
5/18/2016	4.5	5.1	1.125	0.65	0.7313	1.39	1.0164375	
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.62	1.366875	
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.63	1.3753125	
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.75	1.4765625	
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.23	2.6163	
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.3	2.673	
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.26	2.6406	
5/18/2016	4.5	8.4	1.125	0.76	0.855	2.5	2.1375	
5/18/2016	4.5	8.4	1.125	0.76	0.855	2.59	2.21445	
5/18/2016	4.5	8.4	1.125	0.76	0.855	2.86	2.4453	**7.35855**
6/1/2016	4.6	4.56	1.53	0.74	1.1322	1.55	1.75491	
6/1/2016	4.6	4.56	1.53	0.74	1.1322	1.54	1.743588	
6/1/2016	4.6	4.56	1.53	0.74	1.1322	1.52	1.720944	
6/1/2016	4.6	6.09	1.53	0.67	1.0251	2.35	2.408985	
6/1/2016	4.6	6.09	1.53	0.67	1.0251	2.39	2.449989	
6/1/2016	4.6	6.09	1.53	0.67	1.0251	2.34	2.398734	
6/1/2016	4.6	7.62	1.53	0.54	0.8262	0.92	0.760104	
6/1/2016	4.6	7.62	1.53	0.54	0.8262	0.87	0.718794	
6/1/2016	4.6	7.62	1.53	0.54	0.8262	0.76	0.627912	4.86132
6/14/2016	4.4	4.53	1.47	0.68	0.9996	1.43	1.429428	
6/14/2016	4.4	4.53	1.47	0.68	0.9996	1.55	1.54938	
6/14/2016	4.4	4.53	1.47	0.68	0.9996	1.61	1.609356	
6/14/2016	4.4	6	1.47	0.67	0.9849	2.46	2.422854	
6/14/2016	4.4	6	1.47	0.67	0.9849	2.54	2.501646	
6/14/2016	4.4	6	1.47	0.67	0.9849	2.46	2.422854	

6/14/2016	4.4	7.47	1.47	0.52	0.7644	0.9	0.68796	
6/14/2016	4.4	7.47	1.47	0.52	0.7644	0.9	0.68796	
6/14/2016	4.4	7.47	1.47	0.52	0.7644	1.01	0.772044	4.694494
6/29/2016	4.3	3.9	1.43	0.59	0.8437	1.07	0.902759	
6/29/2016	4.3	3.9	1.47	0.59	0.8673	1.07	0.928011	
6/29/2016	4.3	3.9	1.47	0.59	0.8673	1.01	0.875973	
6/29/2016	4.3	5.35	1.47	0.55	0.8085	2.87	2.320395	
6/29/2016	4.3	5.35	1.47	0.55	0.8085	3.01	2.433585	
6/29/2016	4.3	5.35	1.47	0.55	0.8085	3.03	2.449755	
6/29/2016	4.3	6.78	1.47	0.36	0.5292	1.18	0.624456	
6/29/2016	4.3	6.78	1.47	0.36	0.5292	1.09	0.576828	
6/29/2016	4.3	6.78	1.47	0.36	0.5292	1.09	0.576828	3.896196667
7/13/2016	4	3.87	1.33	0.55	0.7315	0.79	0.577885	
7/13/2016	4	3.87	1.33	0.55	0.7315	0.76	0.55594	
7/13/2016	4	3.87	1.33	0.55	0.7315	0.8	0.5852	
7/13/2016	4	5.2	1.33	0.5	0.665	1.75	1.16375	
7/13/2016	4	5.2	1.33	0.5	0.665	1.8	1.197	
7/13/2016	4	5.2	1.33	0.5	0.665	1.86	1.2369	
7/13/2016	4	6.53	1.33	0.51	0.6783	2.35	1.594005	
7/13/2016	4	6.53	1.33	0.51	0.6783	2.4	1.62792	
7/13/2016	4	6.53	1.33	0.51	0.6783	2.25	1.526175	3.354925
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.83	0.59262	
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.85	0.6069	
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.76	0.54264	
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.76	1.232	
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.76	1.232	
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.77	1.239	
8/15/2016	4.2	6	1.4	0.35	0.49	1.02	0.4998	
8/15/2016	4.2	6	1.4	0.35	0.49	0.94	0.4606	
8/15/2016	4.2	6	1.4	0.35	0.49	1.03	0.5047	2.30342

Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurements
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.67	2.004		
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.65	1.98		
5/11/2016	4.5	4.75	1.5	0.8	1.2	1.68	2.016		
5/11/2016	4.5	6.25	1.5	0.8	1.2	2.57	3.084		
5/11/2016	4.5	6.25	1.5	0.8	1.2	2.64	3.168		
5/11/2016	4.5	6.25	1.5	0.8	1.2	2.55	3.06		
5/11/2016	4.5	7.75	1.5	0.85	1.275	3.34	4.2585		
5/11/2016	4.5	7.75	1.5	0.85	1.275	3.22	4.1055		
5/11/2016	4.5	7.75	1.5	0.85	1.275	3.4	4.335	**9.337**	**9.24705**
5/18/2016	4.5	5.1	1.125	0.64	0.72	1.29	0.9288		
5/18/2016	4.5	5.1	1.125	0.64	0.72	1.15	0.828		
5/18/2016	4.5	5.1	1.125	0.64	0.72	1.27	0.9144		
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.28	1.08		
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.31	1.1053125		
5/18/2016	4.5	6.22	1.125	0.75	0.8438	1.34	1.130625		
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.38	2.7378		
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.3	2.673		
5/18/2016	4.5	7.3	1.125	0.72	0.81	3.35	2.7135		
5/18/2016	4.5	8.4	1.125	0.78	0.8775	2.71	2.378025		
5/18/2016	4.5	8.4	1.125	0.78	0.8775	2.81	2.465775		
5/18/2016	4.5	8.4	1.125	0.78	0.8775	2.69	2.360475	7.105238	**7.23189375**
6/1/2006	4.6	4.56	1.53	0.76	1.1628	1.46	1.697688		
6/1/2016	4.6	4.56	1.53	0.76	1.1628	1.35	1.56978		
6/1/2016	4.6	4.56	1.53	0.76	1.1628	1.41	1.639548		
6/1/2016	4.6	6.09	1.53	0.7	1.071	2.17	2.32407		
6/1/2016	4.6	6.09	1.53	0.7	1.071	2.35	2.51685		
6/1/2016	4.6	6.09	1.53	0.7	1.071	2.4	2.5704		
6/1/2016	4.6	7.62	1.53	0.55	0.8415	1.33	1.119195		
6/1/2016	4.6	7.62	1.53	0.55	0.8415	1.49	1.253835		
6/1/2016	4.6	7.62	1.53	0.55	0.8415	1.33	1.119195	5.270187	**5.0657535**
6/14/2016	4.4	4.53	1.47	0.64	0.9408	1.41	1.326528		
6/14/2016	4.4	4.53	1.47	0.64	0.9408	1.43	1.345344		
6/14/2016	4.4	4.53	1.47	0.64	0.9408	1.4	1.31712		
6/14/2016	4.4	6	1.47	0.69	1.0143	2.56	2.596608		
6/14/2016	4.4	6	1.47	0.69	1.0143	2.58	2.616894		
6/14/2016	4.4	6	1.47	0.69	1.0143	2.53	2.566179		

6/14/2016	4.4	7.47	1.47	0.5	0.735	1.04	0.7644		
6/14/2016	4.4	7.47	1.47	0.5	0.735	1.09	0.80115		
6/14/2016	4.4	7.47	1.47	0.5	0.735	0.97	0.71295	4.682391	**4.6884425**
6/29/2016	4.3	3.9	1.43	0.57	0.8151	1.06	0.864006		
6/29/2016	4.3	3.9	1.47	0.57	0.8379	1.01	0.846279		
6/29/2016	4.3	3.9	1.47	0.57	0.8379	1.04	0.871416		
6/29/2016	4.3	5.35	1.47	0.55	0.8085	2.58	2.08593		
6/29/2016	4.3	5.35	1.47	0.55	0.8085	2.69	2.174865		
6/29/2016	4.3	5.35	1.47	0.55	0.8085	2.91	2.352735		
6/29/2016	4.3	6.78	1.47	0.35	0.5145	1.91	0.982695		
6/29/2016	4.3	6.78	1.47	0.35	0.5145	1.82	0.93639		
6/29/2016	4.3	6.78	1.47	0.35	0.5145	1.94	0.99813	4.037482	**3.966839333**
7/13/2016	4	3.87	1.33	0.56	0.7448	1.21	0.901208		
7/13/2016	4	3.87	1.33	0.56	0.7448	1.2	0.89376		
7/13/2016	4	3.87	1.33	0.56	0.7448	1.19	0.886312		
7/13/2016	4	5.2	1.33	0.55	0.7315	1.95	1.426425		
7/13/2016	4	5.2	1.33	0.55	0.7315	1.91	1.397165		
7/13/2016	4	5.2	1.33	0.55	0.7315	1.98	1.44837		
7/13/2016	4	6.53	1.33	0.43	0.5719	2.59	1.481221		
7/13/2016	4	6.53	1.33	0.43	0.5719	2.61	1.492659		
7/13/2016	4	6.53	1.33	0.43	0.5719	2.53	1.446907	3.791342	**3.573133667**
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.69	0.49266		
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.71	0.50694		
8/15/2016	4.2	3.2	1.4	0.51	0.714	0.73	0.52122		
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.62	1.134		
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.65	1.155		
8/15/2016	4.2	4.6	1.4	0.5	0.7	1.67	1.169		
8/15/2016	4.2	6	1.4	0.35	0.49	1.14	0.5586		
8/15/2016	4.2	6	1.4	0.35	0.49	1.07	0.5243		
8/15/2016	4.2	6	1.4	0.35	0.49	1.13	0.5537	2.20514	**2.25428**


Site #5 63 feet Above the Diversion
Discharge (CFS)
10
9
8
7
6
5
4
3
2
1
0
4/20/16
5/10/16
5/30/16
6/19/16
7/9/16
7/29/16
8/18/16
9/7/16
Date
Flow #5
Linear (Flow #5)

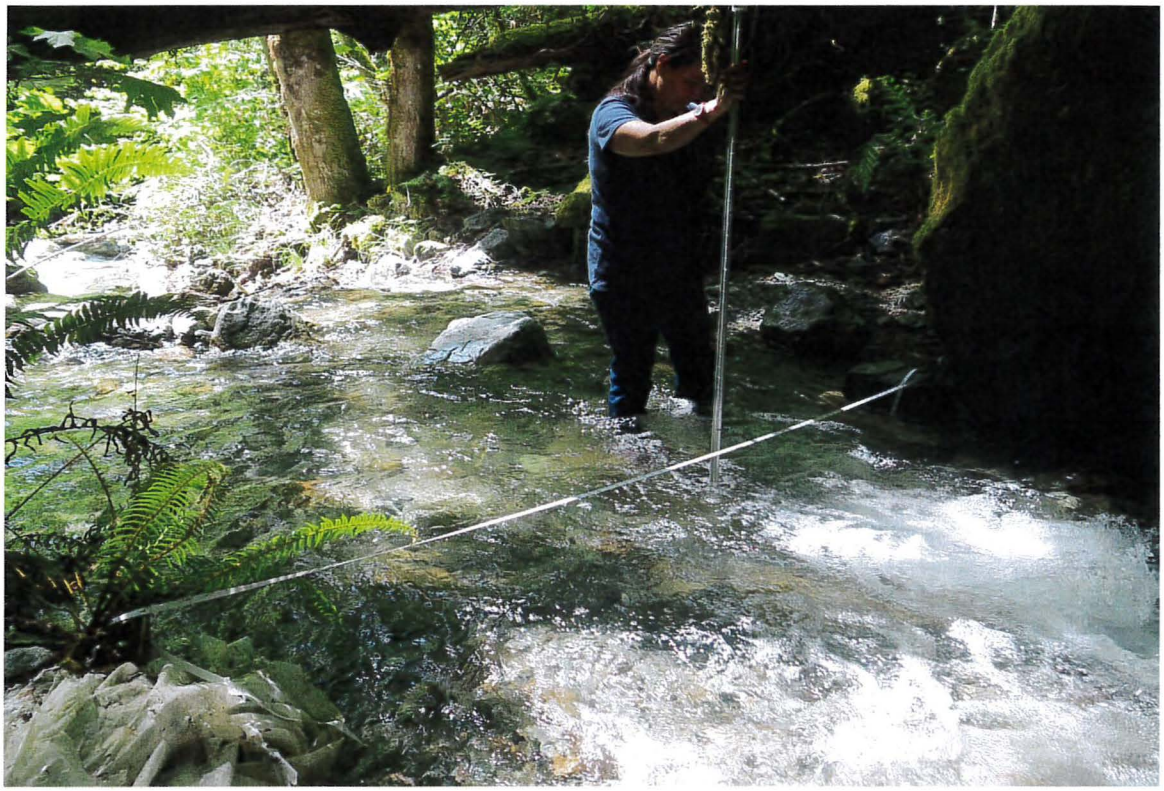
6ft Above Diversion

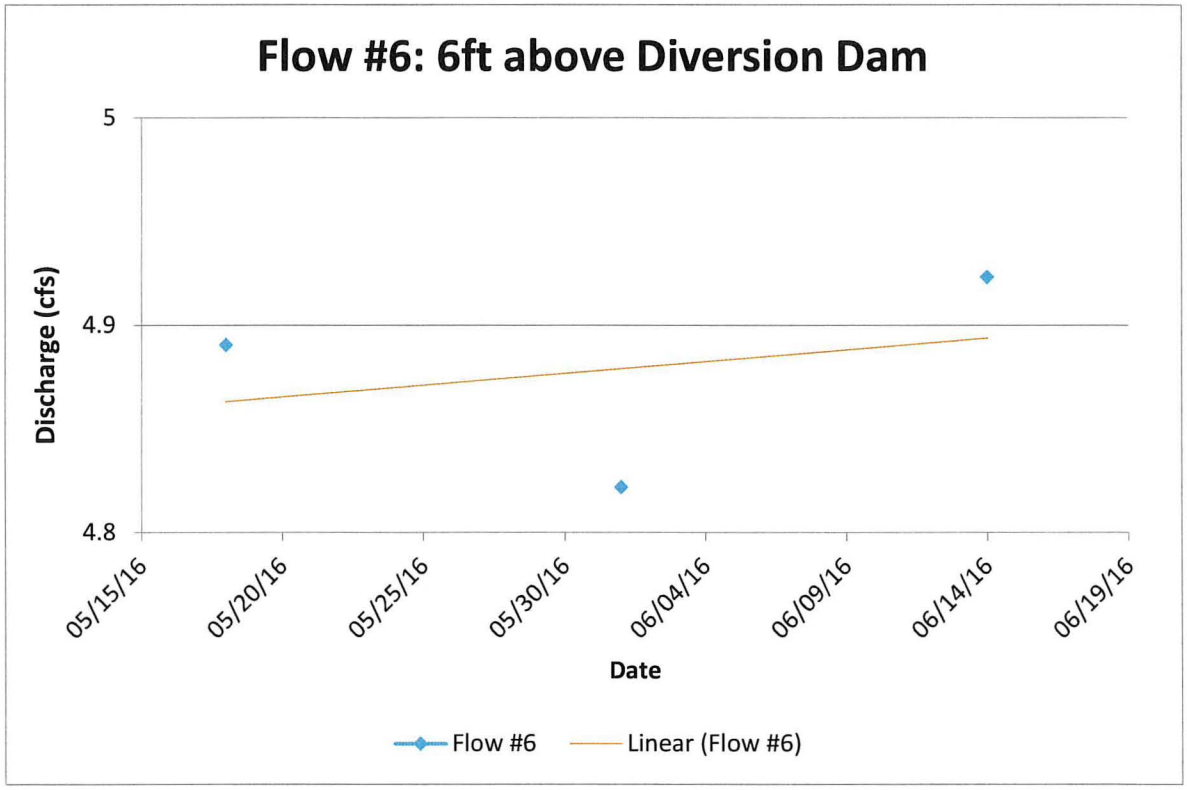
Date	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/18/2016	6.5	5.3	1.625	0.36	0.585	0.6	0.351	
5/18/2016	6.5	5.3	1.625	0.36	0.585	0.6	0.351	
5/18/2016	6.5	5.3	1.625	0.36	0.585	0.67	0.39195	
5/18/2016	6.5	6.925	1.625	0.6	0.975	1.49	1.45275	
5/18/2016	6.5	6.925	1.625	0.6	0.975	1.38	1.3455	
5/18/2016	6.5	6.925	1.625	0.6	0.975	1.44	1.404	
5/18/2016	6.5	8.5	1.625	0.62	1.008	1.8	1.8135	
5/18/2016	6.5	8.5	1.625	0.62	1.008	1.81	1.823575	
5/18/2016	6.5	8.5	1.625	0.62	1.008	1.79	1.803425	
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.65	0.876688	
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.76	1.02505	
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.75	1.011563	**4.55**
6/1/2016	6.8	4.45	1.7	0.45	0.765	0.46	0.3519	
6/1/2016	6.8	4.45	1.7	0.45	0.765	0.42	0.3213	
6/1/2016	6.8	4.45	1.7	0.45	0.765	0.45	0.34425	
6/1/2016	6.8	6.15	1.7	0.5	0.85	1.71	1.4535	
6/1/2016	6.8	6.15	1.7	0.5	0.85	1.75	1.4875	
6/1/2016	6.8	6.15	1.7	0.5	0.85	1.68	1.428	
6/1/2016	6.8	7.85	1.7	0.84	1.428	1.48	2.11344	
6/1/2016	6.8	7.85	1.7	0.84	1.428	1.35	1.9278	
6/1/2016	6.8	7.85	1.7	0.84	1.428	1.5	2.142	
6/1/2016	6.8	9.55	1.7	1	1.7	0.46	0.782	
6/1/2016	6.8	9.55	1.7	1	1.7	0.49	0.833	
6/1/2016	6.8	9.55	1.7	1	1.7	0.53	0.901	**4.69523**
6/14/2016	7.4	4.52	1.85	0.32	0.592	0.6	0.3552	
6/14/2016	7.4	4.52	1.85	0.32	0.592	0.61	0.36112	
6/14/2016	7.4	4.52	1.85	0.32	0.592	0.61	0.36112	
6/14/2016	7.4	6.37	1.85	0.5	0.925	1.94	1.7945	
6/14/2016	7.4	6.37	1.85	0.5	0.925	1.96	1.813	
6/14/2016	7.4	6.37	1.85	0.5	0.925	1.92	1.776	
6/14/2016	7.4	8.22	1.85	0.75	1.388	1.75	2.428125	
6/14/2016	7.4	8.22	1.85	0.75	1.388	1.72	2.3865	
6/14/2016	7.4	8.22	1.85	0.75	1.388	1.75	2.428125	
6/14/2016	7.4	10.08	1.85	0.69	1.277	0.1	0.12765	
6/14/2016	7.4	10.08	1.85	0.69	1.277	0.15	0.191475	
6/14/2016	7.4	10.08	1.85	0.69	1.277	0.1	0.12765	**4.716821667**

Stopped collecting flow as site (6/29/16) became unusable with lower flows

Date	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurements
5/18/2016	6.5	5.3	1.625	0.34	0.553	0.86	0.47515		
5/18/2016	6.5	5.3	1.625	0.34	0.553	0.74	0.40885		
5/18/2016	6.5	5.3	1.625	0.34	0.553	0.81	0.447525		
5/18/2016	6.5	6.925	1.625	0.62	1.008	1.84	1.8538		
5/18/2016	6.5	6.925	1.625	0.62	1.008	1.74	1.75305		
5/18/2016	6.5	6.925	1.625	0.62	1.008	1.67	1.682525		
5/18/2016	6.5	8.5	1.625	0.65	1.056	1.91	2.017438		
5/18/2016	6.5	8.5	1.625	0.65	1.056	1.9	2.006875		
5/18/2016	6.5	8.5	1.625	0.65	1.056	1.97	2.080813		
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.72	0.9711		
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.75	1.011563		
5/18/2016	6.5	10.1	1.625	0.83	1.349	0.73	0.984588	**5.231092**	**4.890545833**
6/1/2016	6.8	4.45	1.7	0.44	0.748	0.37	0.27676		
6/1/2016	6.8	4.45	1.7	0.44	0.748	0.41	0.30668		
6/1/2016	6.8	4.45	1.7	0.44	0.748	0.38	0.28424		
6/1/2016	6.8	6.15	1.7	0.55	0.935	2	1.87		
6/1/2016	6.8	6.15	1.7	0.55	0.935	1.97	1.84195		
6/1/2016	6.8	6.15	1.7	0.55	0.935	1.92	1.7952		
6/1/2016	6.8	7.85	1.7	0.85	1.445	1.63	2.35535		
6/1/2016	6.8	7.85	1.7	0.85	1.445	1.73	2.49985		
6/1/2016	6.8	7.85	1.7	0.85	1.445	1.69	2.44205		
6/1/2016	6.8	9.55	1.7	1	1.7	0.23	0.391		
6/1/2016	6.8	9.55	1.7	1	1.7	0.27	0.459		
6/1/2016	6.8	9.55	1.7	1	1.7	0.19	0.323	**4.94836**	**4.821795**
6/14/2016	7.4	4.52	1.85	0.33	0.611	0.59	0.360195		
6/14/2016	7.4	4.52	1.85	0.33	0.611	0.6	0.3663		
6/14/2016	7.4	4.52	1.85	0.33	0.611	0.59	0.360195		
6/14/2016	7.4	6.37	1.85	0.55	1.018	1.87	1.902725		
6/14/2016	7.4	6.37	1.85	0.55	1.018	1.89	1.923075		
6/14/2016	7.4	6.37	1.85	0.55	1.018	1.81	1.841675		
6/14/2016	7.4	8.22	1.85	0.79	1.462	1.79	2.616085		
6/14/2016	7.4	8.22	1.85	0.79	1.462	1.77	2.586855		
6/14/2016	7.4	8.22	1.85	0.79	1.462	1.84	2.68916		
6/14/2016	7.4	10.08	1.85	0.73	1.351	0.27	0.364635		
6/14/2016	7.4	10.08	1.85	0.73	1.351	0.13	0.175565		
6/14/2016	7.4	10.08	1.85	0.73	1.351	0.15	0.202575	**5.12968**	**4.923250833**

Stopped collecting flow as site (6/29/16) became unusable with lower flows




Flow #6: 6ft above Diversion Dam
Discharge (cfs)
5
4.9
4.8
05/15/16
05/20/16
05/25/16
05/30/16
06/04/16
06/09/16
06/14/16
06/19/16
Date
Flow #6
Linear (Flow #6)

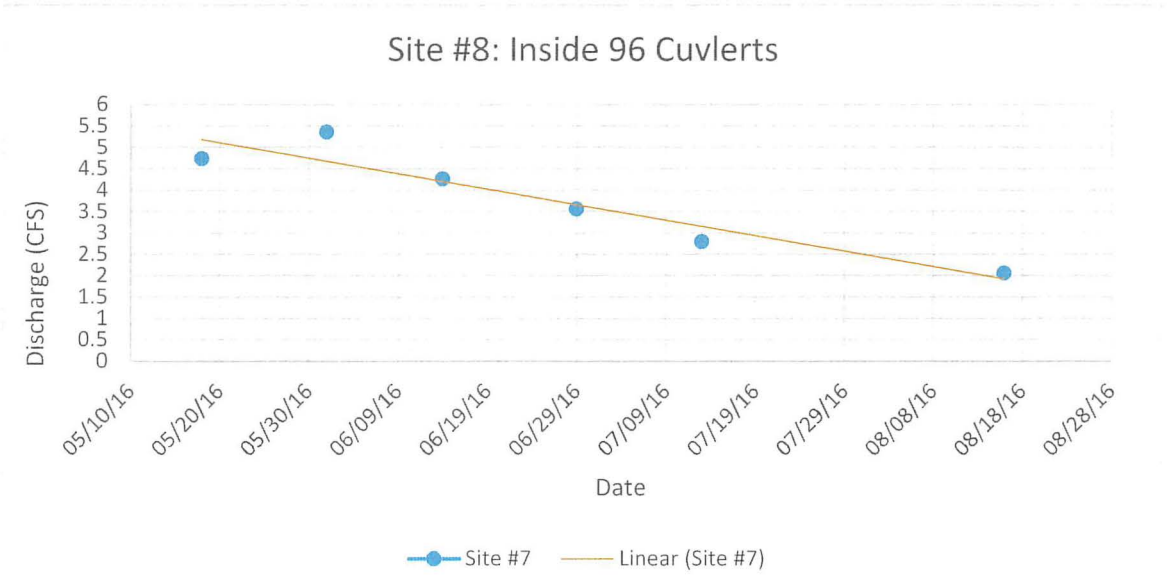
#8 at mouth of 96 Culverts

Date (south culvert)	Width of Stream (Ft)	Distance on Tape	cell width	depth (ft)	area (Ft^2)	velocity	discharge	Total Discharge (1)
5/18/2016	4	1.66	1.33	0.06	0.0798	4.64	0.370272	
5/18/2016	4	1.66	1.33	0.06	0.0798	4.67	0.372666	
5/18/2016	4	1.66	1.33	0.06	0.0798	4.79	0.382242	
5/18/2016	4	2.99	1.33	0.2	0.266	4.41	1.17306	
5/18/2016	4	2.99	1.33	0.2	0.266	4.41	1.17306	
5/18/2016	4	2.99	1.33	0.2	0.266	4.43	1.17838	
5/18/2016	4	4.3	1.33	0.1	0.133	3.59	0.47747	
5/18/2016	4	4.3	1.33	0.1	0.133	3.72	0.49476	
5/18/2016	4	4.3	1.33	0.1	0.133	3.62	0.48146	**2.03445667**
6/1/2016	3	4.3	1	0.18	0.18	4.84	0.8712	
6/1/2016	3	4.3	1	0.18	0.18	4.9	0.882	
6/1/2016	3	4.3	1	0.18	0.18	5.02	0.9036	
6/1/2016	3	5.3	1	0.22	0.22	4.15	0.913	
6/1/2016	3	5.3	1	0.22	0.22	4.4	0.968	
6/1/2016	3	5.3	1	0.22	0.22	4.33	0.9526	
6/1/2016	3	6.3	1	0.15	0.15	4.94	0.741	
6/1/2016	3	6.3	1	0.15	0.15	5.13	0.7695	
6/1/2016	3	6.3	1	0.15	0.15	5.13	0.7695	**2.59013333**
6/14/2016	3	3.5	1	0.14	0.14	4.34	0.6076	
6/14/2016	3	3.5	1	0.14	0.14	4.37	0.6118	
6/14/2016	3	3.5	1	0.14	0.14	4.35	0.609	
6/14/2016	3	4.5	1	0.21	0.21	1.71	0.3591	
6/14/2016	3	4.5	1	0.21	0.21	1.83	0.3843	
6/14/2016	3	4.5	1	0.21	0.21	1.97	0.4137	
6/14/2016	3	5.5	1	0.13	0.13	5.86	0.7618	
6/14/2016	3	5.5	1	0.13	0.13	5.86	0.7618	
6/14/2016	3	5.5	1	0.13	0.13	5.83	0.7579	**1.75566667**
6/29/2016	2.9	2.88	0.96	0.12	0.1152	3.57	0.411264	
6/29/2016	2.9	2.88	0.96	0.12	0.1152	3.59	0.413568	
6/29/2016	2.9	2.88	0.96	0.12	0.1152	3.55	0.40896	
6/29/2016	2.9	3.84	0.96	0.21	0.2016	1.87	0.376992	
6/29/2016	2.9	3.84	0.96	0.21	0.2016	2.12	0.427392	
6/29/2016	2.9	3.84	0.96	0.21	0.2016	2.1	0.42336	
6/29/2016	2.9	4.8	0.96	0.17	0.1632	5.23	0.853536	
6/29/2016	2.9	4.8	0.96	0.17	0.1632	5.12	0.835584	
6/29/2016	2.9	4.8	0.96	0.17	0.1632	4.86	0.793152	**1.647936**
7/13/2016	2	3.43	0.67	0.12	0.0804	6	0.4824	
7/13/2016	2	3.43	0.67	0.12	0.0804	6.03	0.484812	
7/13/2016	2	3.43	0.67	0.12	0.0804	6.04	0.485616	
7/13/2016	2	4.1	0.67	0.12	0.0804	6.05	0.48642	

7/13/2016	2	4.1	0.67	0.12	0.0804	6.36	0.511344	
7/13/2016	2	4.1	0.67	0.12	0.0804	6.17	0.496068	
7/13/2016	2	4.77	0.67	0.13	0.0871	3.83	0.333593	
7/13/2016	2	4.77	0.67	0.13	0.0871	3.81	0.331851	
7/13/2016	2	4.77	0.67	0.13	0.0871	3.86	0.336206	**1.31610333**
8/16/2016	2	3	1	0.1	0.1	5.46	0.546	
8/16/2016	2	3	1	0.1	0.1	5.51	0.551	
8/16/2016	2	3	1	0.1	0.1	5.52	0.552	0.54966667
8/16/2016	2	4	1	0.09	0.09	3.15	0.2835	
8/16/2016	2	4	1	0.09	0.09	3.52	0.3168	0.3042
8/16/2016	2	4	1	0.09	0.09	3.47	0.3123	**0.85386667**

Date (north culvert)	Width of Stream (ft)	Distance on Tape	Cell Width (ft)	depth 2	Area (ft^2) 2	velocity 2	discharge 2	Total Discharge (2)	Average Total Discharge of Measurements
5/18/2016	3.2	2.59	1.07	0.18	0.1926	4.35	0.83781		
5/18/2016	3.2	2.59	1.07	0.18	0.1926	4.33	0.833958		
5/18/2016	3.2	2.59	1.07	0.18	0.1926	4.29	0.826254		
5/18/2016	3.2	3.6	1.07	0.1	0.107	5.66	0.60562		
5/18/2016	3.2	3.6	1.07	0.1	0.107	5.61	0.60027		
5/18/2016	3.2	3.6	1.07	0.1	0.107	5.82	0.62274		
5/18/2016	3.2	4.65	1.07	0.55	0.5885	2.17	1.277045		
5/18/2016	3.2	4.65	1.07	0.55	0.5885	2.09	1.229965		
5/18/2016	3.2	4.65	1.07	0.55	0.5885	2.2	1.2947	2.709454	**4.743910667**
6/1/2016	3.5	4.37	1.17	0.6	0.702	2.74	1.92348		
6/1/2016	3.5	4.37	1.17	0.6	0.702	2.77	1.94454		
6/1/2016	3.5	4.37	1.17	0.6	0.702	2.83	1.98666		
6/1/2016	3.5	5.53	1.17	0.07	0.0819	5.04	0.412776		
6/1/2016	3.5	5.53	1.17	0.07	0.0819	4.73	0.387387		
6/1/2016	3.5	5.53	1.17	0.07	0.0819	4.76	0.389844		
6/1/2016	3.5	6.7	1.17	0.18	0.2106	1.88	0.395928		
6/1/2016	3.5	6.7	1.17	0.18	0.2106	1.75	0.36855		
6/1/2016	3.5	6.7	1.17	0.18	0.2106	2.37	0.499122	2.769429	**5.359562333**
6/14/2016	2.7	2.95	0.9	0.43	0.387	4.06	1.57122		
6/14/2016	2.7	2.95	0.9	0.43	0.387	4.07	1.57509		
6/14/2016	2.7	2.95	0.9	0.43	0.387	4.08	1.57896		
6/14/2016	2.7	3.85	0.9	0.12	0.108	5.74	0.61992		
6/14/2016	2.7	3.85	0.9	0.12	0.108	5.66	0.61128		
6/14/2016	2.7	3.85	0.9	0.12	0.108	5.67	0.61236		
6/14/2016	2.7	4.75	0.9	0.1	0.09	3.57	0.3213		
6/14/2016	2.7	4.75	0.9	0.1	0.09	3.57	0.3213		
6/14/2016	2.7	4.75	0.9	0.1	0.09	3.69	0.3321	2.51451	**4.270176667**
6/29/2016	2.2	4.46	0.73	0.45	0.3285	3.33	1.093905		
6/29/2016	2.2	4.46	0.73	0.45	0.3285	3.42	1.12347		
6/29/2016	2.2	4.46	0.73	0.45	0.3285	3.38	1.11033		
6/29/2016	2.2	5.19	0.73	0.14	0.1022	5.64	0.576408		
6/29/2016	2.2	5.19	0.73	0.14	0.1022	5.67	0.579474		
6/29/2016	2.2	5.19	0.73	0.14	0.1022	5.64	0.576408		
6/29/2016	2.2	5.992	0.73	0.09	0.0657	3.37	0.221409		
6/29/2016	2.2	5.92	0.73	0.09	0.0657	3.48	0.228636		
6/29/2016	2.2	5.92	0.73	0.09	0.0657	3.44	0.226008	1.912016	**3.559952**
7/13/2016	2.3	0.68	0.77	0.29	0.2233	4.49	1.002617		
7/13/2016	2.3	0.68	0.77	0.29	0.2233	4.52	1.009316		
7/13/2016	2.3	0.68	0.77	0.29	0.2233	4.52	1.009316		
7/13/2016	2.3	1.45	0.77	0.09	0.0693	5.04	0.349272		

7/13/2016	2.3	1.45	0.77	0.09	0.0693	4.96	0.343728		
7/13/2016	2.3	1.45	0.77	0.09	0.0693	4.86	0.336798		
7/13/2016	2.3	2.22	0.77	0.06	0.0462	2.9	0.13398		
7/13/2016	2.3	2.22	0.77	0.06	0.0462	2.81	0.129822		
7/13/2016	2.3	2.22	0.77	0.06	0.0462	2.95	0.13629	1.483713	**2.799816333**
8/16/2016	1.5	2.88	0.75	0.33	0.2475	3.93	0.972675		
8/16/2016	1.5	2.88	0.75	0.33	0.2475	3.93	0.972675		
8/16/2016	1.5	2.88	0.75	0.33	0.2475	3.95	0.977625	0.974325	
8/16/2016	1.5	3.63	0.75	0.1	0.075	3.09	0.23175		
8/16/2016	1.5	3.63	0.75	0.1	0.075	3.15	0.23625	0.23225	
8/16/2016	1.5	3.63	0.75	0.1	0.075	3.05	0.22875	1.206575	**2.060441667**


Site #8: Inside 96 Cuvlerts
Discharge (CFS)
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
05/10/16
05/20/16
05/30/16
06/09/16
06/19/16
06/29/16
07/09/16
07/19/16
07/29/16
08/08/16
08/18/16
08/28/16
Date
Site #7
Linear (Site #7)

THE ELECTRICIAN INC.

7/11/16

Based on examination and evaluation of the existing AC hydro power system as well as year round electrical load demands of Marble Mountain Ranch Resort (see attached calculation), we recommend converting and to interconnect the existing AC hydro system for winter use with 60KW propane generator and a 80KW (5280 sqf of space) photovoltaic system with 300KWh Aquion salt water battery at 90 % dod. (aquionenergy.com) This new system is the minimum size necessary to cover energy consumption of 126,265.68 KWh a year (see attached) by marble mountain ranch resort.

Due to variations in load distances some load (not all) need to be supplied at 480 V and step down to system voltage of 120/240V AC at load destination. Some loads power supply will stay at 120/240V.

This solution will minimize or eliminate need to rebuild the extensive existing power distribution at marble mountain ranch and stay in compliance with new water regulations.

hybrid hi energy efficiency system main componence supply and installation (Turn key)

80KW solar PV ground mount (5280sqf)

300KWh salt water storage (Aquion)

60KW generac propane generator

2x 1000 gl LP tanks

Steel/aluminum mounting structure

Inverters, transformers, disconnect

New electrical room

Grand total 425,000.000 US dollars

It would be interesting to look also in to PG&E solution as the only possible reliable solution besides this proposal.

If you have any questions or concerns please feel free to contact by email or phone.

Pavel Nalezek RMO

Office 530 629 4240

Cell 530 277 5345

Address P.O.Box 251 Salyer CA 95563 humboldtsolar.net

Doug,

I have a completed quote of $526,000 for the 65kW solar with 500 kWh battery packaged in two shipping containers and replacement underground 240V electrical grid with a new panel at each building (100A for the houses and 50A for each cabin) using the nickel-iron technology http://ironedison.com/high-voltage-nickel-iron-battery with the Princeton all-in-one microgrid inverter http://ironedison.com/100kw-solar-and-battery-inverter-by-princeton-power-dri100 . It is higher than the other quote but will virtually eliminate diesel use due to the nearly double battery capacity and battery is what costs.

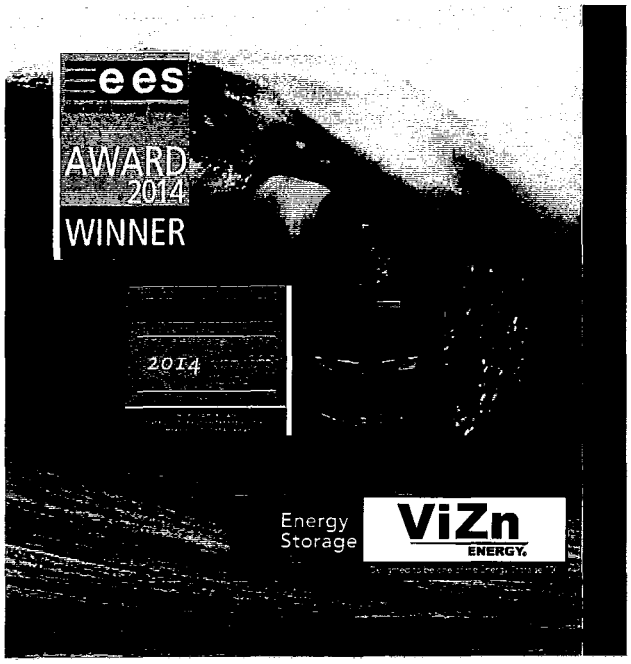
I am awaiting a competitive quote from a manufacturer of flow batteries (see attached). These two are the only technologies that offer a 20+ year warranty on the batteries like the PV panels have. With the freight and their container, the batteries are over half the cost of the system, you don't want to have to replace them, ever. The Aquion and LI-ion batteries have 8 and10 year warranties, respectively. You may choose from either SolarWorld or LG for the solar panels both of which have 25 year warranties.

I also obtained a lease quote that I have attached but it has no provision for any grants or other cost reductions that I may find through the CSE (who I haven't heard back from, yet). In this, the lender takes the tax benefits so the net cost is less than the purchase price and the payments of $55,130 per year are about $20,000 per year more than the diesel cost, at todays rate. It is a 6 year lease, then there is a $142K payoff and you own it outright. I plan to use that $20K/year as a target for a subsidy through CSE. We could also put it out to Joey and see what the State officials say.

I have requested a PACE quote which would be longer term but would provide you with about $270,000 in tax savings which could be used over a 5-10 year period. These loans are simple to obtain but typically have higher rates (probably around $4,000/month for 20 years) than a mortgage which would offer the same tax benefits for about $750-800 per month less. If you can use the tax benefits you could probably prepay the loan as you recover them and own it within 8 years or less. Or use the tax savings to grow the business.

I will forward the additional information as soon as I get it and always feel free to call if you want.

Hal Slater
Hal@GoldenWestEnergy.com
(619) 248-3592
Lic. 474818 B/C46
www.goldenwestenergy.com



ViZn ENERGY®

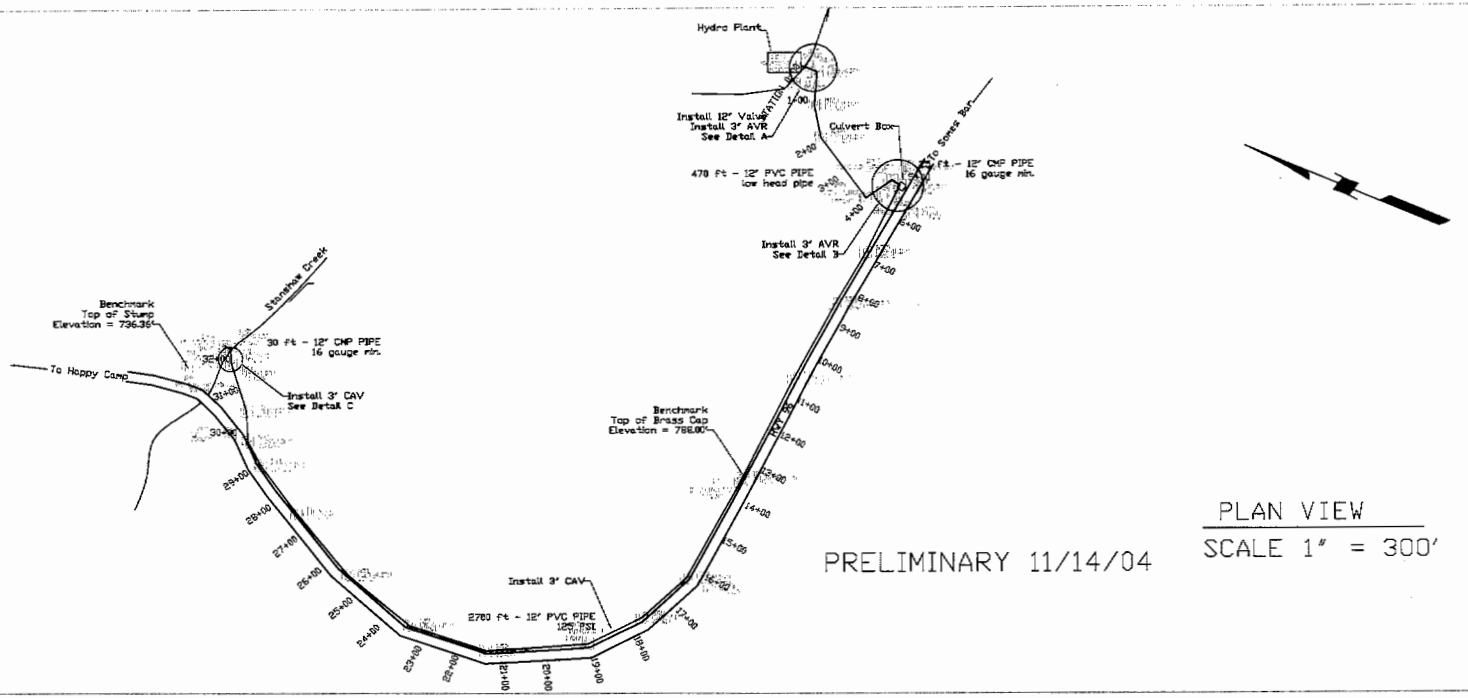
Performance

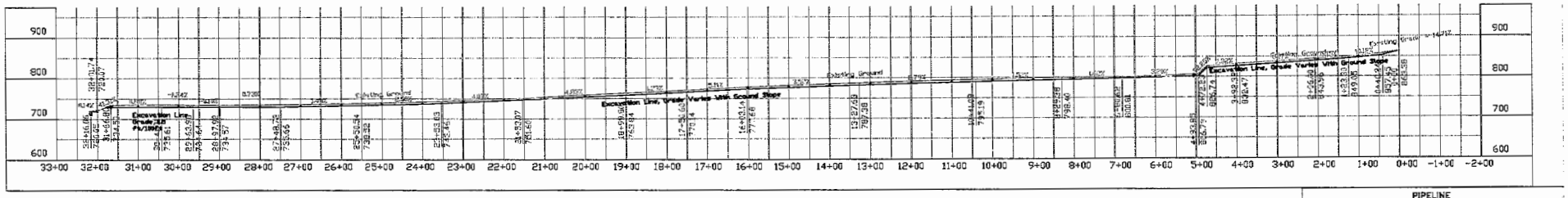
-

Safety

-

Value





PROFILE

NOTES:
1. Installation grade varies between stations 0+00 and 4+70, and 5+00 and 29+00. Perform uniform excavation of 3.5 feet deep to provide 30 inches of cover over 12" pipeline.
2. Install at uniform grade 0.5 ft/100 ft or at 0.5% between stations 29+00 and 31+70.
3. Install metal pipe and appropriate anchors from station 31+70 to daylight at station 32+00.
4. Concrete headwalls shall be placed around pipe at stations 0+00, 4+70, 5+00, and 31+70.
5. Pipe outlet at station 32+00 shall have appropriate energy dissipator or provide for power generation. Estimated pressure at outlet is approximately 57 psi.
6. Two flow meters as recommended by Department of Water Resource shall be installed downstream of power plant at beginning of return pipes.
7. If possible, utilize existing culvert from stations 4+70 and 5+00, and concrete box at station 5+00.

PIPELINE
MARBLE MOUNTAIN RANCH
SISKIYOU
RESOURCE CONSERVATION DISTRICT

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

		Date	Approved by
Designed	L. BUNDY	9/04	Title
Drawn	L. BUNDY	9/04	Title
Checked			Sheet No.
Checked			of

Drawing No. GREEN.DWG

APPENDIX A

Proposal Application Form

Section 1: Summary Information

1. Applicant name: Mid Klamath Watershed Council

2. Contact person: Will Harling
3. Address: Box 840
4. City: Somes Bar
5. State: CA
6. ZIP: 95568
7. Telephone number: (530) 469-3216
8. FAX number: (530) 469-3372
9. Email address: wharling@sisqtel.net

10. Type: Public Agency ☐ Nonprofit Organization ☒ Private Enterprise ☐ Indian Tribe ☒

11. OSBCR Certified Small Business? ☐
If yes, specify the industry group and Small Business Reference Number:

12. Past contractor? ☒

13. Federal taxpayer ID: 20-1501256

14. Project type: Water Conservation

15. Project title: 2004 Stanshaw Creek Water Conservation Project - Phase I

16. Amount requested:

17. Total project cost:

18. Salmonid species benefited: Chinook ☒ Coho ☒ Steelhead ☒ Cutthroat ☐

19. Project summary: This project will pipe return water diverted from Stanshaw Creek to Marble Mountain Ranch for power generation back to Stanshaw Creek. Currently as much as 3 cfs is diverted via ditch out of the Stanshaw Creek basin into Irving Creek.

20. Stream: Stanshaw Creek

21. Tributary to: Klamath River

22. Major drainage system: Klamath River

23. County(ies): Siskiyou

24. Within Coastal Zone? ☐ Within Trinity River basin? ☐ Within Klamath River basin? ☒

Section 2: Location Information

1. Township, Range, Section: T13 R6E Sec 33

2. Latitude, Longitude (in decimal degrees): 41.30.00 N, 123.30.00 W

3. Location description: Project will install a 12" return flow pipe from the hydroelectric plant on Marble Mountain Ranch to the upstream inlet of the Stanshaw Creek Highway 96 culvert (3200 ft) (see attached map and drawing). Project is located 7.5 miles north

of Somes Bar, CA, along Hwy 96. Project is approx. 1800 feet above confluence of Stanshaw Creek with the Klamath River.

4. Directions:

FROM YREKA go North on Highway 263 to the junction with Highway 96, then proceed South-West 63 miles to Happy Camp and continue another 30 miles to the ranch. Marble Mountain Ranch (MMR) is on the left side of the road up a ramped driveway. Driving time is about 2 hours from Yreka.

FROM REDDING proceed West on highway 299 for 109 miles to Willow Creek. Take highway 96 North 47 miles to Somes Bar, then continue North 7 1/2 miles to MMR on your right. Driving time is about 3 hours from Redding.

FROM EUREKA go North on highway 101 and proceed East on highway 299 for 50 miles to Willow Creek. Take highway 96 North 47 miles to Somes Bar and proceed North 7 1/2 miles to MMR on your right. Driving time is about 2 hours from Eureka.

Doug and Heidi Cole live in the big white house on the left as you enter the ranch. Ph #530-469-3322.

Section 3: Watershed Information

1. Major Drainage Name: Klamath River

2. Watershed Name: Stanshaw Creek

3. Watershed area : Stanshaw Creek

4. Watershed area included in this proposal: Lower portion of Stanshaw Creek Watershed

5. Land use statement: Private lands: Ditch and pipe 580 ft from hydro plant across MMR property to inboard ditch on HWY 96. 2060 ft along Highway 96 inboard ditch, and 460 ft across level fill to top of Stanshaw Creek culvert above HWY 96 (all Cal Trans right of way).

6. Project area ownership: % private: 19 % state: 81 % federal: 0

7. Project area with landowners supportive of proposal: 100%

8. Watershed length of blue line streams: NA

9. Length of blue line streams affected by proposal: 0.5 mi.

10. Salmonids present: Coho (Oncorhyncus kisutch) , Steelhead (Oncorhyncus mykiss) , Chinook (Oncorhyncus tshawytscha)

11. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

12. Salmonids historically present: same

13. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

14. Limiting factors to salmonids: Stream Flow, Connectivity, Thermal Refugia

15. Source(s) of above information: USFS Orleans and Happy Camp RD Staff, Karuk Tribe Fisheries Department

Section 4: Project Objectives

1. Background and Need for project: Currently, there is an interbasin transfer via a ditch carrying 1.5 to 3.0 cfs from Stanshaw Creek to Irving Creek, located 7.5 miles north of Somes Bar on the Klamath River. This diversion is listed in the DFG Coho Recovery Plan for the state as a high priority for restoration. Past conflict over flows, thermal refugia, and connectivity in Stanshaw Creek have highlighted the need to increase instream flows, particularly in the anadromous section below the Hwy 96 culvert. Since 2003 landowners, agency, and tribal personnel have been working together to find a solutionn that provides for salmonid habitat needs, without unduly impacting the Marble Mountain Ranch. All stakeholders concur that returning Stanshaw Creek flows above the Hwy 96 culvert is the first step to improve anadromous habitat there. Acting on this, the Karuk Tribe, NRCS and MKWC combined resources over the summer to conduct flow monitoring and engineer the return flow. There is an opportunity to capitalize on an existing development in the Cal Trans right of way that must be used in the return of Stanshaw flows. Siskiyou Telephone is laying fiber optic line sometime after April 2005, and is burying the line deep enough that the return pipe could be laid on top, thus saving the trouble of re-digging the ground and risking damage to the fiber optic line. Coordinating with the contract to lay both lines at once will greatly reduce the cost of project. Funds are needed to puchase pipe, and to cover installation fees above what it costs the contractor to install the fiber optic.

2. Known limiting factors addressed by project: Thermal Refugia, Juvenile Salmonid Habitat, Connectivity, Spawning Habitat

3. Limiting factor remediation: Increasing flows in Stanshaw Creek, particularly in the late summer months, will increase the amount of quality cold water refugial habitat. Whereas Irving Creek is channelized at its confluence with the Klamath River, Stanshaw Creek empties and ponds into a flood scoured side channel of the Klamath River. This pond is a classic example of juvenile coho habitat: shaded and lined with overhanging vegetation and coarse woody debris. Annual summer surveys by the Karuk Tribe Fisheries Department show 500 or more juvenile coho utilizing this habitat on a good year. Surveys show intermittent use of the creek above this pool to the barrier at the Hwy 96 culvert downspout. With higher flows, this habitat should be more utilized. Higher flows will also help maintain connectivity to the mainstem Klamath. Tribal fisheries technicians have observed juvenile coho

migrating up small creeks to escape warm mainstem temperatures (Soto 2004). Large numbers of juveniles in this pool indicate that migration from the Klamath into this refugial habitat is occurring. Higher flows will also expand the availability and quality of spawning habitat. Cal Trans has identified this fish passage barrier and has plans to someday upgrade the culvert or make a bridge and restore flat spawning habitat under the Hwy 96 fill and upstream.

4. Additional objectives: This project will return diverted water to Stanshaw Creek and end the interbasin transfer to Irving Creek. It will bring a diverse group of stakeholders, tribes and agencies together for planning and implementation. These include all effected landowners, California Department of Fish and Game, Karuk Tribe of California, Natural Resources Conservation Service, NOAA Fisheries, Mid Klamath Watershed Council, US Forest Service, State Water Resources Control Board, and the Klamath Forest Alliance. By forging a working relationship on Phase I of this project, chances of reaching consensus on Phase II (screening the inlet to the MMR water sytem, piping 4500 feet of ditch to the hydro plant, decreasing electrical demands through increasing power system efficiency) will be increased.

Section 5: Project Tasks and Results

1. Detailed Project Tasks: Receive grant (March, 2005). Coordinate NEPA, and rider to Siskiyou Telephone Company's encroachment permit with CalTrans (April, 2005). Purchase materials (April 2005). Coordinate installation with Siskiyou Telephone and their contractor, agencies, tribes and landowners (May - July, 2005). Monitor project installation through before and after photos from landmarked photopoints (May - August, 2005). Write progress reports (May - August, 2005). Write final report to DFG (February, 2006).

2. Time frame: March 1, 2005 to February 28, 2006.

3. DFG acceptable protocols used in project development and completion:
- ☒ DFG Restoration Manual
  List:
- ☒ DFG Monitoring Protocols
  List:
- ☐ Fish, Farms and Forestry Coalition Draft Protocols
  List:
- ☐ PWA Road Assessment
- ☐ Star Worksheet Road Assessment
- ☐ V-Star residual Pool Volume
- ☐ Juvenile summer abundance estimation
- ☐ Out-migrant trapping and efficiency
- ☐ California Content Standards
- ☐ National Science Content Standards

4. Other protocols:

5. Deliverables: This project will return 1.5 - 3.0 cfs continuous flow to Stanshaw Creek above the Hwy 96 culvert.

6. Expected Quantitative Results:
a. Stream length treated/assessed/made more accessible (distance in feet): 1800 ft
b. Instream habitat structures to be installed (number):
c. Fencing length to be installed/repaired (distance in feet):
d. Road length treated/assessed (distance in miles):
e. Stream crossings treated (number):
f. Sediment prevented from entering the stream (volume in cubic yards):
g. Trees planted (number):
h. Area planted/preserved/assessed (area in acres):
i. Public meetings (number):
j. Public meeting attendees (number):
k. Students trained (number):
l. Juvenile fish produced: released:

7. Other products and results: Collaboration among a diverse group of stakeholders.

8. Applicant's qualifications and experience: The Mid Klamath Watershed Council has been coordinating restoration activities in the Mid Klamath Subbasin since 2001. Including the work of or subsidiary, the Orleans/Somes Bar Fire Safe Council, we have

received over $900,000 to plan and implement watershed education and restoration projects, including water quality and streamflow monitoring, thermal refugia enhancement, hazard fuels reduction, riparian planting, noxious weed removal, community education, a quarterly newsletter, and more. We recently received our non-profit status, which has allowed us to hire an office manager/accountant, and increased our ability to handle more project work.

9. Previously completed projects and outcomes under grant program: We have received one organizational support grant from the DFG, which became active in September, 2004. Our first progress report was submitted in January, 2005.

Section 6: Landowners, Access and Permits

1. Landowners granting access for project (Please attach access agreements): Doug and Heidi Cole, owners of Marble Mountain Ranch.

2. Permits: NEPA

3. Lead CEQA agency:

4. Required mitigation? ☐

Section 7: Project Budget

1. Summary Project Costs (Please attach detailed budget):

Sources of Funds	Cash	In-kind (if applicable)	Total
Fisheries Restoration Grant Program			
Other State Agencies Name(s) and amount(s) of each:			
Federal Name(s) and amount(s) of each:			
Applicant			
Other Sources Name(s) and amount(s) of each:			
Total			

2. Standardized Costs:

3. Budget justification:

4. Administrative Overhead:

Section 8: Supplemental or Specialized Information

In the following order, please attach the following required items, as appropriate to the project type:

☐ 1. Project budget according to the sample in the Solicitation. See examples and instructions on pages B10-B14. (ALL)
☐ 2. Plan view diagram. See example on page B9. (CC, CF, FL, HB, HI, HR, HS, HU, MO, PM, SC, TW, WC, WD)
☐ 3. Project location topo map, 7.5 minute. See example on page B8. (CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TE, TW, WC, WD, WP)
☐ 4. Watershed map. See Section III. (HU, MD, MO, OR, PI, PL, WP)
☐ 5. Landowner access agreements. See examples on pages B2-B7.

(All projects with on-the-ground work)

☐ 6. Project 10-year maintenance agreement. See examples on pages B3-B5. (HR, HU)
☐ 7. Written eligibility certification from CDF. See Section III. (CF)
☐ 8. Evaluation plan. (see Section III - ED, TE). Quality Assessment/Quality Control Plan (see Section III - MD, MO).
☐ 9. Land acquisition/easement information. See page 7, Section III. (HA)
☐ 10. Water purchase information. See pages 9-10, Section III. (WP)
☐ 11. Status report. See Section III. (OR, PI)
☐ 12. 5-year management plan (new projects only). See page 13-14, Section III. (RE)
☐ 13. Environmental project questionnaire. See form on pages B15-17.
(CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TW, WC, WD, WP)
☐ 14. Project follows guidelines in the California Coho Salmon Recovery Strategy (RE)
(Coho related projects **must** follow guidelines outlined in appendices H or I, view at
http://www.dfg.ca.gov/nafwb/pubs/2003/CohoRecovery/RecoveryStrategy_20031105.pdf
☐ 15 Drug Free Workplace, Std 21 (Appendix B)
☐ 16. Non-Discrimination, Std 19 (Appendix B)
☐ 17. Payee Data Record, Std 204 (Appendix B)

Supplemental Information Checklist by Project Type
(Please refer to the item numbers above)

Project Type	Item Number	Project Type	Item Number
AC	1	OR	1, 4, 5, 11, 15, 16, 17
CC	1, 2, 3, 5, 13, 15, 16, 17	PI	1, 4, 5, 11, 15, 16, 17
CF	1, 2, 3, 5, 7, 13, 15, 16, 17	PL	1, 4, 5, 15, 16, 17
ED	1, 5, 8, 15, 16, 17	PM	1, 2, 3, 5, 13, 15, 16, 17
FL	1, 2, 3, 5, 13, 15, 16, 17	RE	1, 3, 5, 12, 13, 14, 15, 16, 17
HA	1, 3, 5, 9, 13, 15, 16, 17	SC	1, 2, 3, 5, 13, 15, 16, 17
HB	1, 2, 3, 5, 13, 15, 16, 17	TE	1, 3, 5, 8, 15, 16, 17
HI	1, 2, 3, 5, 13, 15, 16, 17	TW	1, 2, 3, 5, 13, 15, 16, 17
HR	1, 2, 3, 5, 6, 13, 15, 16, 17	WC	1, 2, 3, 5, 13, 15, 16, 17
HS	1, 2, 3, 5, 13, 15, 16, 17	WD	1, 2, 3, 5, 13, 15, 16, 17
HU	1, 2, 3, 4, 5, 6, 13, 15, 16, 17	WP	1, 3, 4, 5, 10, 13, 15, 16, 17
MD	1, 3, 4, 5, 13, 15, 16, 17	OR	1, 4, 5, 11, 15, 16, 17
MO	1, 2, 3, 4, 5, 13, 15, 16, 17	PI	1, 4, 5, 11, 15, 16, 17