

**Anderson, Skyler@Waterboards**

---

**From:** Bob Pagliuco - NOAA Affiliate <bob.pagliuco@noaa.gov>  
**Sent:** Saturday, April 09, 2016 12:42 AM  
**To:** Murano, Taro@Waterboards; Anderson, Skyler@Waterboards  
**Subject:** Fwd: 40710 Stanshaw Creek II Additional Funding Request  
**Attachments:** Marble Mountain Pipeline.pdf; 40710 Revised SOW for Additional Funds\_Task 6 Revision.pdf

Any thoughts on this? We want to approve this project, but we want to ensure you folks are on board as well and I promised to coordinate with you.

Bob  
 ----- Forwarded message -----  
**From:** Anne Butterfield <[Anne.Butterfield@nfwf.org](mailto:Anne.Butterfield@nfwf.org)>  
**Date:** Fri, Apr 8, 2016 at 4:30 PM  
**Subject:** 40710 Stanshaw Creek II Additional Funding Request  
**To:** "Bean, Caitlin@Wildlife" <[Caitlin.Bean@wildlife.ca.gov](mailto:Caitlin.Bean@wildlife.ca.gov)>, "Bull, Jennifer@Wildlife" <[Jennifer.Bull@wildlife.ca.gov](mailto:Jennifer.Bull@wildlife.ca.gov)>, "Ebert, Demian ([Demian.Ebert@pacificorp.com](mailto:Demian.Ebert@pacificorp.com))" <[Demian.Ebert@pacificorp.com](mailto:Demian.Ebert@pacificorp.com)>, Bob Pagliuco - NOAA Affiliate <[bob.pagliuco@noaa.gov](mailto:bob.pagliuco@noaa.gov)>  
**Cc:** "Jim Simondet - NOAA Federal ([Jim.Simondet@noaa.gov](mailto:Jim.Simondet@noaa.gov))" <[Jim.Simondet@noaa.gov](mailto:Jim.Simondet@noaa.gov)>, Margaret Tauzer - NOAA Federal <[margaret.Tauzer@noaa.gov](mailto:margaret.Tauzer@noaa.gov)>

Hi All,

Please find below the answers to your questions from Will Harling of MKWC. Please let me know if you have any additional questions for Will as soon or possible and I will forward them along early next week. I can also schedule a call with Will if anyone would find that to be helpful.

All the best,

Anne

### 1. Can you send the most recent pipeline design?

Will Harling: Yes, as soon as Joey completes it. Basically so far he has the distance and the flow calcs. What level of design are you anticipating? I can send you the design calcs we sent to Margaret Tauzer.

Joey Howard: I prepared an initial design for Margaret Tauzer review (attached). I believe the pipeline can be constructed from this plan. However, I intend to add additional detail on the trench and headgate. So, I'd say we are near a 70% design level.

**2. Your budget asks for \$32,467 for the pipeline at the bottom (highlighted) but the materials up top in the line items add up to \$27,090 (highlighted). What is your additional request from CEF? What is the landowner going to cost share on the pipe? What has the landowner already put in to the Stanshaw project thus far in matching funds?**

Will Harling: I forgot to take off the admin costs for the pipe. The additional request is for \$27,090, or whatever the CEF can provide of this amount. The landowner has already spent approx \$42,000 on upgraded water tanks and domestic water system and ditch maintenance to prevent overtopping. They are tapped out, but I am encouraging them to cover whatever CEF can't to make this happen even if they have to go into debt. They are balking at this....I have let them know if we don't get this pipe in by May 15th, litigation will likely be forthcoming along with a Cleanup and Abatement Order from the Water Board.

**3. What methodology and/or structural elements will you use to ensure that no more than 10% of the flow will be diverted throughout the year?**

Will Harling: This is outlined in our revised scope. We plan to measure flow every two weeks with a swoffer meter above, below, and in the diversion, then modify the amount of water entering the ditch to maintain the 10%. We will be able to construct a graph of decreasing flow and will set the diversion amount to anticipate further water loss in the subsequent two weeks to ensure we are tracking closely with the NMFS instream flow recommendations. It will be difficult for our staff to do flows and modifications any more frequently. If this is required we would need more funding.

**4. Will the short term fix in Task #6 be compatible with the long term fix once the design has been complete?**

Will Harling: Yes, this will meet basic needs in the interim while we seek funding to lay a larger pipe for non-consumptive use that will allow us to decommission the ditch and return non-consumptive flows back to Stanshaw Creek. Since this will likely take 2-3 years to implement, the Cole's are anticipating operating the ditch during the Nov 1 - May 15th window as flows allow.

**5. Do we know what the long-term solution is yet or is that the outcome of Phase B?**

Will Harling: This is the outcome of Part B, however the Water Board ruling and USFS constraints on moving the intake narrow the range of solutions.

**6. If the solution is to repair the ditch or pipe the entire diversion (and 6" pipe isn't adequate for domestic AND power use), then why should we spend almost \$23k on pipe that would have to be torn out?**

Will Harling: The smaller pipe will be used to provide water to the ranch during the May 15-Nov 1st window. The larger pipe will provide non-consumptive flows during the Nov -May window. Both are needed. The pipe will not be torn out. They will be laid side by side in the ditch then ideally buried.

**7. Similarly, if the final solution is to pipe the entire supply, why do an assessment of the ditch and develop an O&M Plan for the ditch?**

Willing Harling: The ditch may be in operation for the next 2-3 winters. Having an accepted plan by the Water Board will minimize the potential for impacts from the operation of the ditch. It is also a requirement of the Water Board.

Will Harling: Please let me know if you have any more questions and we can answer them as soon as possible. Time is of the essence!

**From:** Bean, Caitlin@Wildlife [mailto:[Caitlin.Bean@wildlife.ca.gov](mailto:Caitlin.Bean@wildlife.ca.gov)]  
**Sent:** Tuesday, April 05, 2016 11:13 AM  
**To:** Anne Butterfield  
**Cc:** Bull, Jennifer@Wildlife; Ebert, Demian ([Demian.Ebert@pacificorp.com](mailto:Demian.Ebert@pacificorp.com)); Jim Simondet - NOAA Federal ([Jim.Simondet@noaa.gov](mailto:Jim.Simondet@noaa.gov)); Margaret Tauzer - NOAA Federal; Bob Pagliuco - NOAA Affiliate  
**Subject:** RE: 40710 Stanshaw Creek II Part A and B

Hi Anne,

CDFW shares the concerns raised by NOAA.

Best, Caitlin

**From:** Bob Pagliuco - NOAA Affiliate [mailto:[bob.pagliuco@noaa.gov](mailto:bob.pagliuco@noaa.gov)]  
**Sent:** Sunday, April 03, 2016 10:34 PM  
**To:** Anne Butterfield  
**Cc:** Bean, Caitlin@Wildlife; Bull, Jennifer@Wildlife; Ebert, Demian ([Demian.Ebert@pacificorp.com](mailto:Demian.Ebert@pacificorp.com)); Jim Simondet - NOAA Federal ([Jim.Simondet@noaa.gov](mailto:Jim.Simondet@noaa.gov)); Margaret Tauzer - NOAA Federal  
**Subject:** Re: 40710 Stanshaw Creek II Part A and B

Hello Anne et al,

I have reviewed the materials and here are my thoughts:

Request #1 - I approve this scope of work. It is in line with what we originally approved a few years ago and it is the next step in the process.

Request #2 - Prior to approval, I want to have a conversation with CDFW and the Water Board to ensure that this is the appropriate fix for this stage in the game. Will has been working with our engineer Margaret and I in the development of this concept and I have copied her here in case she has some feedback. I have attached the preliminary pipeline designs from Joey Howard and here was his response to our questions regarding the pipe sizing calculations "The 6 inch pipe size is based on free surface flow in the pipe assuming 0.353 cfs at a slope of 0.004 ft/ft and a Manning's n of 0.012 (typical roughness for pvc pipe). Uniform depth in the pipe is 0.38 ft (4.6 inches). Full flow in this pipe without pressure flow is 0.384 cfs." My preliminary questions to Will are:

1. Can you send the most recent pipeline design?
2. Your budget asks for \$32,467 for the pipeline at the bottom (highlighted) but the materials up top in the line items add up to \$27,090 (highlighted). What is your additional request from CEF? What is the landowner going to cost share on the pipe? What has the landowner already put in to the Stanshaw project thus far in matching funds?

3. What methodology and/or structural elements will you use to ensure that no more than 10% of the flow will be diverted throughout the year?
4. Will the short term fix in Task #6 be compatible with the long term fix once the design has been complete?

Thanks,

Bob

-

On Fri, Apr 1, 2016 at 5:24 PM, Anne Butterfield <[Anne.Butterfield@nfwf.org](mailto:Anne.Butterfield@nfwf.org)> wrote:

Hello All,

I have two requests from Will Harling of MKWC regarding the Stanshaw Creek II Project with a Total Award of \$47,818. They are related but separate requests, and in an effort to expedite Request #1, we can handle them separately. Please see below:

**Request #1):** As you likely recall, the group made a decision in the Fall of 2014 to move forward with the Contracting for Stanshaw Creek II. Will made a request for a disbursement for \$15,000 upfront (which we called “Part A”), and the rest of the funds (“Part B” for \$32,818) are contingent upon the outcome of Part A. Will is now requesting the Part B funds (\$47,818 - \$15,000 = \$32,818). I have attached his Budget and his Statement of Work for the project as a whole, which includes both Part A and Part B in the amount of \$47,818. Once approved, we will amend his Contract to reflect the new budget of \$47,818 and the additional Tasks. **Please review the materials and please let me know if you approve of a Contract amendment for the remainder of the funds.**

**Request #2)** Secondly, Will has made a new request for additional funding, on top of the already-awarded amount. The additional funding falls under Task 6 and the need to purchase a pipe: “i am just throwing it out there that if there are additional funds to add to this agreement from the larger CEF fund, they would be well spent toward the 6" pipe that would allow the landowners to comply with the NMFS instream flow requirements this summer. Otherwise this project might get stalled in litigation if the landowner can't come up with the funds to install the pipe on their own”. Will said that the additional funds that he is looking for would be out of the “Hard Cost Share” section of his Budget which totals \$27,090. The budget breaks down this amount by line-item . **Please let me know what questions you have for Will Harling or what additional materials you require in order to move forward with considering Stanshaw Creek II for additional funding out of the Coho Enhancement Fund.**

Please let me know if you have any questions for me or if you would like me to schedule a phone call to discuss, either with or without Will and MKWC.

All the best,

Anne

Anne Butterfield

Manager, Impact-Directed Environmental Accounts (IDEA)

National Fish and Wildlife Foundation

90 New Montgomery Street, Suite 1010

San Francisco, CA 94105

Direct: [\(415\) 243-3106](tel:(415)243-3106) Fax: [\(415\) 778-0998](tel:(415)778-0998)

[Anne.Butterfield@nfwf.org](mailto:Anne.Butterfield@nfwf.org) | [www.nfwf.org](http://www.nfwf.org)



--

Bob Pagliuco  
Marine Habitat Resource Specialist

ERT

NOAA Office of Habitat Conservation, Restoration Center  
1655 Heindon Road  
Arcata, CA 95521  
[\(707\) 825-5166](tel:(707)825-5166) Office  
[\(707\) 217-7176](tel:(707)217-7176) Cell

--

Bob Pagliuco  
Marine Habitat Resource Specialist

ERT  
NOAA Office of Habitat Conservation, Restoration Center  
1655 Heindon Road  
Arcata, CA 95521  
(707) 825-5166 Office  
(707) 217-7176 Cell

## **Revised Scope of Work for Stanshaw Creek Water Conservation Assessment – Phase II**

### **NFWF Grant #: 8008.15.040710 / 2010-0500-025**

#### **Summary**

MKWC has completed Part A of this contract (see attachment #1 for recent Annual Report, we will be submitting a final invoice for Part A soon), and is submitting a revised Scope of Work and Budget to allow for implementation of Part B, which would include the tasks outlined below. Please note that due to specific requirements from the State Water Resources Control Board outlined in their summary opinion documents on the Marble Mountain Ranch (12-3-15), we have revised the scope of work to address their requirements in Part B of this contract.

**Tasks 1 and 2. Completed. See Attachment #1 for details.**

#### **Task 3. Follow-Up Site Surveys and Assessment**

This task will include additional field surveys, survey data processing, and base map production. The project team will survey the general alignment of the water distribution network. The survey will begin at the water diversion on Stanshaw Creek. Follow-up surveys will be conducted to further develop identified potential alignments and locations for alternative configurations of the water system, hydropower plant, points of diversion, and conveyance routes. Elevations and distances collected by the survey will be used in subsequent tasks for hydraulic and energy production calculations as well as for developing quantities for cost estimates.

#### **Task 4. Energy Audit**

A qualified energy professional will conduct a facility investigation to identify current energy use and identify opportunities to improve energy transmission and consumption efficiency. A brief letter report will:

1. Estimate current energy use by season;
2. Identify site-specific recommendations for energy production alternatives and costs for efficiency upgrade options;

#### **Task 5. Water Efficiency Study and Concept Alternatives**

This task will study existing water use and identify methods to reduce consumption, identify water diversion conveyance improvements that protect aquatic organisms and reduce transmission losses. The project team will develop concept alternatives consistent with recent SWRCB and NMFS specifications that identify operation methods and infrastructure that reduce diversion flows.

The project team will document water availability, existing use, and demand for irrigation, fire protection, domestic consumption, and power generation. The water use and demand will be assessed on a seasonal basis. Information from the energy audit will be used to identify potential reductions to power needs. System modifications and upgrades will be assessed to identify means to reduce stream diversion,

particularly during critical periods. Alternative power generation facilities will be evaluated to identify improvements to water use.

#### **Task 6 (NEW). Short Term MMR System Modifications to Meet SWRCB/NMFS Requirements**

The Regional Water Quality Control Board has issued an opinion on Marble Mountain Ranch's (MMR) water right (12-3-15), which includes adherence to NMFS instream flow requirements for Stanshaw Creek. MKWC and Cascade Stream Solutions, Inc. (CSS), will work with MMR, the SWRCB, and other stakeholders to identify actions to comply with the opinions and directives issued by the SRWCB. These actions include designing a water distribution system to convey water to MMR that meets NMFS instream flow requirements in the short term (2016-2017) and long term (2017 on).

In order to meet the short term conditions of the SWRCB and NMFS, we are requesting a portion of the funds be used to install a 6" diameter pipe in the existing ditch with a temporary headgate before May 15, 2016. This pipe is sized to convey consumptive flows (0.31cfs), or 10% of Stanshaw Creek flow at the Point of Diversion (POD), (whichever is less), to MMR between May 15 and October 31. Estimated costs of these expenses will be covered by cost savings on the energy efficiency analysis. Additionally, a short term modification to the MMR water system will be an engineered design for the outflow to Irving Creek from the MMR ditch where a head cut is causing active erosion into Irving Creek.

#### **Task 7 (NEW). Water Quality Protection**

The SWRCB brought up new concerns regarding the potential for ongoing erosion associated with the operation of the MMR ditch, and erosional features from past overtopping/diversion events. MKWC and CSS will work with stakeholders to address these concerns through this proposal.

**Erosion Assessment** - Assess slopes between the upper ditch and Stanshaw Creek and the streambed of Stanshaw Creek and Irving Creek and the unnamed tributary to Irving Creek for stored sediment deposits, and erosional sources associated with the past and current failures of the ditch. Identify all erosional issues and those that should be corrected, propose corrective designs and provide a schedule for implementing corrective measures.

**Develop Water Quality Sampling Plan** - Ensure that water used onsite and carried in the ditch is treated/protected as necessary to minimize inputs of pollutants in the flow through process. Develop a sampling plan to assess the quality of water in the ditch as it passes through the ranch property for potential sources of fecal coliform, total coliform, total petroleum hydrocarbons, temperature, and nutrients. The sampling plan will assess water quality above the diversion and ranch complex, and below the ranch complex to evaluate if there are any potential contaminants entering the surface waters of the ditch or pond.



### **Ditch Assessment**

- a. Evaluate the entire ditch system, identify all features and locations susceptible to failure by any of the physical processes and mechanisms described herein, (including but not limited to ditch seepage, berm fill saturation, upslope cutbank stability), identify locations where there is potential for sediment delivery to receiving waters in the event of a failure, develop mitigations including design and construction standards and an implementation schedule as necessary to complete the defined scope of work.
- b. Develop and submit for approval a ditch operation and maintenance plan that includes an inspection and maintenance schedule, specifying those measures to be incorporated/ constructed and steps to be taken to ensure that the slopes above the ditch do not fail into and block the ditch, that water seepage from the ditch does not saturate underlying materials and result in failure, that the ditch does not overtop the berm, that the berm does not fail, and that sediment does not deliver from the ditch to waters of the state.

### **Progress Reports to SWRCB**

Progress reports will be submitted quarterly by MKWC to update the SWRCB, NFWF, and other stakeholders on compliance actions. Progress reports will include an update on project development and permitting, a description of steps taken to develop and implement the required plans, and any unforeseen circumstances that may affect progress on meeting the deadlines and requirements of this Order.

### **Restoration and Monitoring Implementation**

MKWC will work with the owners of MMR to oversee implementation of restoration and monitoring actions.

### **Restoration and Monitoring Plan Reporting**

MCWC with assistance from CSS and other stakeholders, will collect information and begin preparation of a restoration and monitoring plan to submit to the SWRCB when restoration actions are completed. This will likely happen after this project has ended, but data for this report will be collected through this project.


## **Task 9 (New). Ditch Piping and Temporary Headgate**

Prepare construction plans and details for a headgate, piping, and sediment traps to supply water to meet domestic, irrigation, and power needs. Preliminary engineering calculations to meet NMFS instream flow requirements suggest that the installation of a six inch pipe to convey consumptive use water to Marble Mountain Ranch for the period from May 15 – October 31 is appropriate. This option is supported by all stakeholders. A temporary headgate will be constructed to prevent entrainment into the pipe, which will be laid directly into the ditch bed.

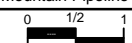
**Task 10 (NEW). Flow Monitoring**

Monitor flows every two weeks between May 15 – October 31<sup>st</sup>, and work with MMR owners to partition flows into the MMR water system consistent with the NMFS instream flow recommendations. Flows will be taken with a swoffer meter in Stanshaw Creek above and below the POD, and in the ditch just before the head gate. Instream flow measurements will be done by the Mid Klamath Watershed Council and shared with stakeholders within a week of flow measurements.




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

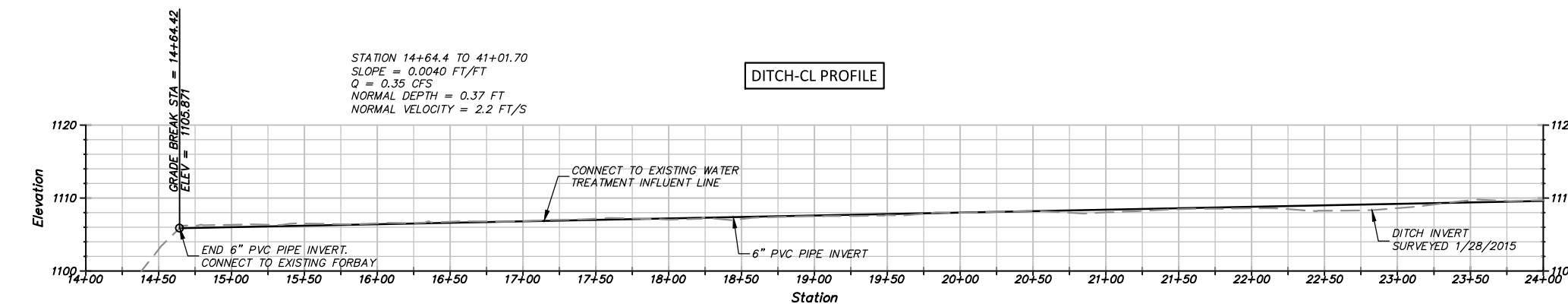
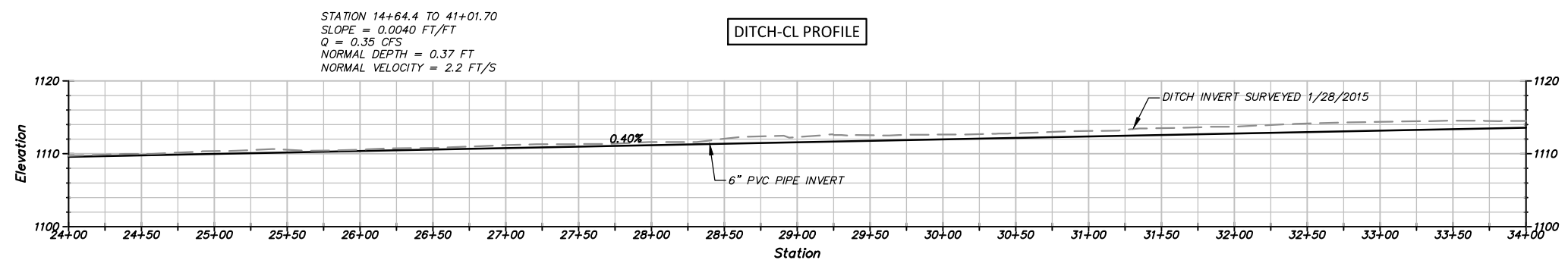
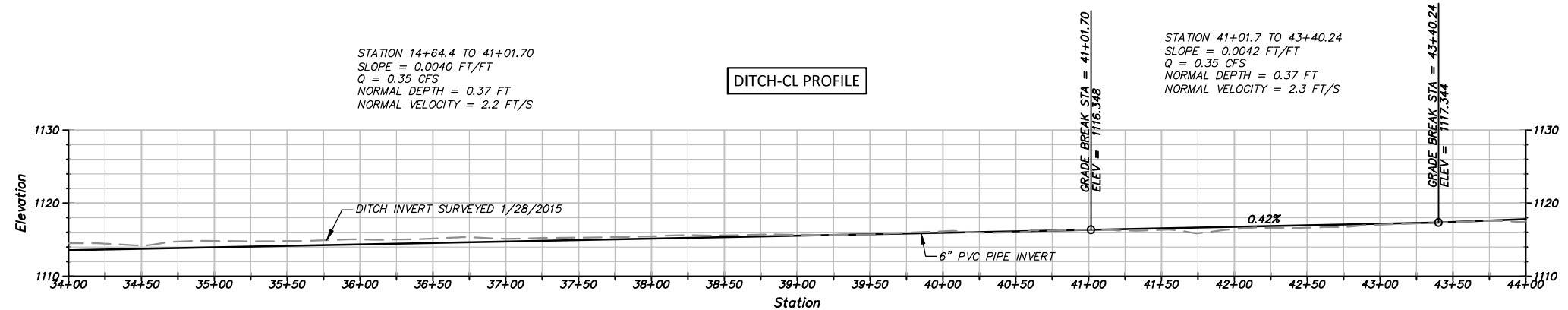
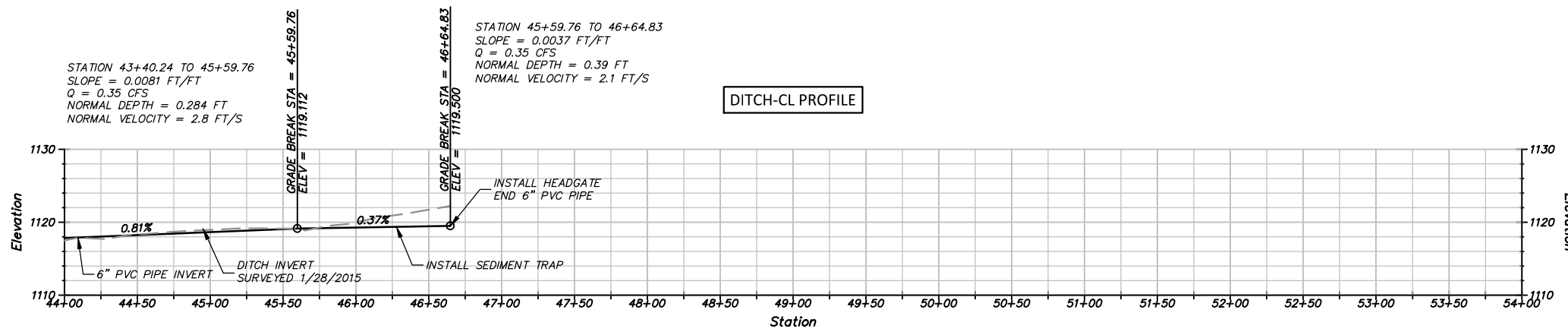
**Cascade Stream Solutions**  
 295 East Main, Suite 11  
 Ashland, Oregon 97520  
 Phone: (541) 864-0492  


Drawing Information		Revisions	
Date	----	No.	Date
Status	PRELIMINARY		
Designer	jh		
Drafter	jh		
Checked			
File Name	Marble Mountain Pipeline		
Plotted Scale			

PRELIMINARY  
 NOT FOR CONSTRUCTION

**Marble Mountain Ranch**  
**Water Efficiency Study**  
 Plan View

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



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

**Cascade Stream Solutions**  
295 East Main, Suite 11  
Ashland, Oregon 97520  
Phone: (541) 864-0492

Drawing Information		Revisions	
Date	----	No.	Date
Status	PRELIMINARY		Description
Designer	jh		
Drafter	jh		
Checked			
File Name	Marble Mountain Pipeline		
Plotted Scale			

*PRELIMINARY  
NOT FOR CONSTRUCTION*

Marble Mountain Ranch  
Water Efficiency Study  
Pipe Profile

Job Number  
2015-115

Sheet Number

2

Sheet 2 of