



State Water Resources Control Board

WR-53



Winston H. Hickox
Secretary for
Environmental
Protection

Division of Water Rights
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Gray Davis
Governor

RAS

MAY 23 2002

In Reply Refer to:
363:MC:262.0(47-40-01)

Klamath Forest Alliance
c/o Law offices of Donald B. Mooney
129 C Street, Suite 2
Davis, CA 95616

Mr. Doug and Mrs. Heidi Cole
c/o Ms. Jan Goldsmith
Kronick, Moskovitz, Tiedemann & Girard
400 Capitol Mall, 27th Floor
Sacramento, CA 95814-3363

Ladies and Gentlemen:

WATER RIGHTS COMPLAINT SUBMITTED BY THE KLAMATH FOREST ALLIANCE – ALLEGING UNREASONABLE DIVERSION

Complaint Unit staff of the Division of Water Rights have completed their investigation of the complaint lodged by the Klamath Forest Alliance (KFA) against Doug and Heidi Cole (dba Marble Mountain Ranch). A copy of the Staff Report of Investigation regarding this matter is enclosed. Complaint Unit staff reached the following conclusions:

1. A court of competent jurisdiction would most likely confirm that the Coles have a valid pre-1914 appropriative right to divert water from Stanshaw Creek for full domestic and irrigation purposes at the Marble Mountain Ranch.
2. Evidence has not been submitted to substantiate a pre-1914 appropriative right for power purposes but A029449, if approved, should cover all diversions for power purposes.
3. With the current irrigation system, most diversions for power purposes during the low-flow periods of the year are incidental to domestic and irrigation needs.
4. Prima facie evidence is available to indicate that lower Stanshaw Creek does provide habitat for "thermal refuge" when temperatures in the Klamath River become detrimental to the health and well being of fish life.
5. Bypasses similar to those present during the field investigation should provide adequate habitat for thermal refuge purposes.
6. Measuring flows on a regular basis in Stanshaw Creek is not practical. Any requirement to measure minimum bypass flows should **not** be established unless the requirement acknowledges that a sufficient diversion of water will be allowed into the Coles' ditch to cover both the diversion and bypass requirement with subsequent measurement and release of a bypass back into the stream.
7. Considerable benefit might accrue to all sides of this dispute if an appropriate physical solution were to be implemented.

California Environmental Protection Agency

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Based on these conclusions, Complaint Unit staff believe the following actions are appropriate:

1. That the Coles be directed to cease all diversion of water whether pursuant to a pre-1914 appropriative claim of right or post-1914 appropriative rights derived from Application 29449 or Small Domestic Registration D030945R unless sufficient flow is passed below their Point of Diversion to maintain a flow in lower Stanshaw Creek below the Highway 96 culverts similar to that present during the October 16, 2001, field investigation (≈ 0.7 cfs).
2. That the required bypass flow be determined in one of two fashions:
 - a) if full diversion of the creek into the Coles' ditch is not allowed, the flow should be visually estimated so that sufficient flow would be available to fill a small, hand-dug ditch between the terminal pool of Stanshaw Creek and the Klamath River; or
 - b) if full diversion of the creek into the Coles' ditch is allowed, a device shall be installed capable of bypassing sufficient flow to maintain 0.7 cfs in the creek below the Highway 96 culverts before any water is passed down the diversion ditch to Marble Mountain Ranch.
3. That the complaint filed by KFA against the Coles be closed.
4. That the parties give serious consideration to a physical solution similar to that discussed in the Staff Report of Investigation.

If either party to the complaint disagrees with the conclusions reached by Complaint Unit staff, please let me know of the points with which you disagree and the specific evidence you believe is available to substantiate or justify a different conclusion or action. If we do not hear from you within 30 days from the date of this letter, we will assume that you agree with the conclusions and recommendations contained therein. If the Coles are unable to produce evidence to justify a different recommendation, failure on their part to maintain the bypass flows as specified may result in appropriate enforcement action without further notice. Similarly, if the KFA is unable to provide evidence to justify a different course of action, this complaint would be subject to closure without further notice.

If you have any questions regarding this matter, please contact me at (916) 341-5307.

Sincerely,

ORIGINAL SIGNED BY

Michael Contreras
Complaint Unit

Enclosures

cc: See next page.

Klamath Forest Alliance
Mr. Doug and Mrs. Heidi Cole

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MAY 23 2002

WR-53

cc: Mr. Doug and Mrs. Heidi Cole
92250 Highway 96
Somes Bar, CA 95568

Department of Fish and Game
Environmental Services
c/o Mr. Ron Prestly
601 Locust Street
Redding, CA 96001

National Marine Fisheries Service
Santa Rosa Field Office
Attention Tim Broadman
Margaret Tauzer
777 Sonoma Avenue, Room 325
Santa Rosa, CA 95404

William M. Heitler, District Ranger
U.S. Department of Agriculture
Orleans Ranger District
P.O. Drawer 410
Orleans, CA 95556-0410

Mr. Jim De Pree
Siskiyou County Planning Department
P.O. Box 1085
Courthouse Annex
Yreka, CA 96097

Mr. Konrad Fisher
3210 Klinge Road NW
Washington, D.C. 20008

Karuk Tribe of California
Department of Natural Resources
Attention Mr. Toz Soto
P.O. Box 282
Orleans, CA 95556

bcc: RAS

MContreras\lfischer 5/22/02
U:\Comdrv\MContreras\Cole closure letter

001978

Environmental Details

WR-53

APPLICATION ID 29449 WRIMS APPL. ID A029449 ENGR CONTACT LLE UPDATE DATE 10/01/2002 CASE IN DATE 04/04/1989

APPLICANT OR PROJECT NAME

COLE

SOURCE

STANSHAW CRK

COUNTY

SIS

NOTICE DATE

03/17/2000

PROTEST DATE

03/20/2000

WATERSHED

KLAMATH RIVER

EAS CASE ACTIVITY DATA:

SUPERVISOR

RAS

EAS CONTACT

JES

PROJ CONSTRUCTED

Y

ES REQUEST DATE

08/22/2002

PENDING ES ASSIGNMENT RANK

3

LEAD AGENCY FOR CEQA

SWRCB

DATE RESPONSE Y/N

MOU DUE

DATE MOU REC

PRELIM WORKPLAN DUE

DATE PRELIM WKPL REC

FINAL WORKPLAN DUE

DATE FINAL WKPL REC

NEXT STEP

PREPARE CEQA DOC; RESOLVE PROTESTS (WC 1335 PROCESS?)

WHO IS RESPONSIBLE

EAS

NEXT STEP COMMENTS

ECA 8/22/02 LETTER FINDS 0.7 CFS BYPASS ADEQUATE; DIRECTS EAS TO COMPLETE CEQA DOC & RESOLVE PROTESTS (1335?)

EAS ACTIVITY ASSIGNED

DRAFT MOU LETTER

WHO IS ASSIGNED

JES

ACTIVITY TARGET DATE

10/31/2002

EAS REMARKS Part 1 of 2

EXISTING 3 CFS DD FROM STANSHAW CRK 4 HYDROPOWER W/TAILWATER EXPORT TO IRVING CRK. POTENTIAL IMPACTS ON T+E SALMONIDS IN LOWER STANSHAW CRK (ESP IN SUMMER). ARCH SURVEY REQ'D. DFG, NMFS, CSFA & FISHER (RIPARIAN) PROTESTED. RAS/REM ATTENDED DFG/NMFS 7/28/00

EAS REMARKS Part 2 of 2

SITE MTG TO CONSIDER FISH BYPASS TERMS NEEDED. DFG WANTS 2.5 CFS BYPASS; NMFS WANTS 1.5 CFS. KLAMATH FOREST ALLIANCE (KMA) FILED COMPLAINT; CU INVESTIGATED (DFG, NMFS & FISHER PARTICIPATED) & ECA 8/22/02 LETTER FINDS 0.7 CFS BYPASS ADEQUATE. ASSIGN ES

CASE CATEGORY 1

CASE ACTIVITY LEVEL B

ARCHEOLOGICAL CASE DATA:

ARCHEOLOGIST REMARKS

NOT REFERRED TO ARCH AS OF 7/96 NATIVE AMERICAN CONCERNS. I CAN'T REMEMBER WHY NA CONCERNS W/O MAIN FILE-4YRS AGO. NEEDS AN ARCH SURVEY

ARCHEOLOGIST ASSIGNED

DJS

ARCH. SURVEY REQ'D

Y

CLEARANCE DATE

EAS CASE STEPS COMPLETED:

PRELIMINARY REVIEW DATE 07/13/2000

DEFICIENCY TO APPL DATE 05/26/1989

SCH CLOSING DATE ND

NOTICE OF EIR PREP. DATE

SCH CLOSING DATE EIR

EAS ENV DOC TYPE SIS

EAS ENV DOC COMPLETED DATE

CASE OUT DATE

001979



State Water Resources Control Board

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Gray Davis
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Memorandum to File

To: File Number 262.0 (47-40-01)

Date: MAY 23 2002

From: Charles A. Rich Charles A. Rich, Chief
Complaint Unit
Michael Contreras Michael Contreras
Environmental Specialist III
Complaint Unit

SUBJECT: WATER RIGHTS COMPLAINT LODGED BY THE KLAMATH FOREST ALLIANCE AGAINST DOUG AND HEIDI COLE REGARDING DIVERSION OF WATER FROM STANSHAW CREEK IN SISKIYOU COUNTY

BACKGROUND

The Division of Water Rights (Division) received a complaint on June 18, 2001 from the Klamath Forest Alliance against Doug and Heidi Cole. This complaint contains the following allegations:

1. The Cole's diversions are unauthorized as they exceed pre-1914 appropriative rights and the Cole's have no post-1914 appropriative rights for power diversions, as a permit has not been issued pursuant to pending Application A029449; and
2. The Cole's diversions adversely impact public trust resources in an unreasonable manner.

Ms. Janet Goldsmith, legal counsel for the Coles, responded to this complaint via a letter dated August 20, 2001. This response contains the following assertions:

1. The Cole's diversions have been continuous since before 1914 and are covered by a valid pre-1914 appropriative claim of right.
2. The complainant has not provided any factual evidence indicating that the Cole's diversions are adversely impacting fishery resources in either Stanshaw Creek or the Klamath River.

FIELD INVESTIGATION

On October 17, 2001, staff of the Complaint Unit conducted a field investigation for the subject complaint. Prior to meeting the parties, Complaint Unit staff undertook a flow

measurement in Stanshaw Creek approximately 60 feet downstream of two culverts that pass underneath Highway 96. A flow of 0.61 cubic feet per second (cfs) was measured using a current velocity meter. Water temperature was measured at 8:30 a.m. to be 52°F. The twin, semicircular culverts that carry the creek under Highway 96 are approximately 320 feet long, 6 feet high, and 10 feet wide each. The slope of the floor of these culverts is about 9%. All of these measurements were made with the aid of a laser range finder and/or tape measure. No debris was observed in the culverts, indicating that they were designed to be and function quite well as self-cleaning conduits.

Complaint Unit staff then located the downstream end of the tailwater ditch coming from the Cole property a short distance above the point where unused water is discharged to Irving Creek. Flow was measured to be 0.1 cfs with a current velocity meter. Water temperature was measured to be 54°F.

Complaint Unit staff next met with the parties at the Marble Mountain Ranch dining room. Approximately 30 individuals participated representing the following entities:

- the Coles; including Mr. & Mrs. Cole and their legal counsel, Jan Goldsmith,
- the Klamath Forest Alliance (KFA); including Felice Pace for the KFA and their legal counsel, Don Mooney,
- representatives of the California Department of Fish & Game (DF&G),
- representatives of the National Marine Fisheries Service (NMFS); including Dr. Stacy Li,
- the Karuk Tribe; including Toz Soto, their fisheries biologist, several tribal elders and numerous tribe members,
- Konrad Fischer, son of James Fischer, who owns the property along the southern bank of Stanshaw Creek between Highway 96 and the Klamath River, and the caretaker for this property who lives there on a continuous basis, and
- Charles Rich and Michael Contreras from the Division's Complaint Unit

Complaint Unit staff started the meeting by explaining the typical complaint process:

- 1) complaint is filed,
- 2) answer is requested,
- 3) answer to complaint is provided at the option of the respondent,
- 4) Complaint Unit staff conduct field investigation if necessary, and
- 5) a Report of Investigation is prepared and transmitted to the parties along with recommendations for action regarding the complaint.

Complaint Unit staff also explained the adjudicatory authority of the State Water Resources Control Board (SWRCB) with respect to pre-1914 appropriative rights. The pre-1914 appropriative claims of right of the Coles were discussed.

After this discussion, several parties stated that they believe the Cole's diversions are adversely impacting anadromous fish that frequent Stanshaw Creek. Complaint Unit staff pursued this topic and asked what evidence is available to support these allegations. The parties present were unable to identify much evidence. They indicated that no formal studies regarding public trust resources in Stanshaw Creek have been undertaken. Visual observations of juvenile fish in the creek have been made. Several biologists indicated that they believe lower Stanshaw Creek provides a thermal refuge or "refugia" for juvenile fish when temperatures in the Klamath River reach lethal levels. They stated that sufficient flow to maintain a continuous connection with the river are very important.

Some of the parties also argued that Stanshaw Creek may provide spawning habitat for adult salmon or steelhead trout. However, they were unable to provide any substantial evidence in support of these allegations.

Complaint Unit staff asked if the Cole's tailwater that is discharged into Irving Creek provides more benefit to fish life in Irving Creek than it would to fish life if left in Stanshaw Creek. All of the biologists present indicated that Irving Creek has sufficient water to provide adequate habitat. Adding water diverted from Stanshaw Creek would not increase this habitat significantly. They felt, however, that leaving the water in Stanshaw Creek would be more beneficial if additional areas of thermal refuge were generated as a result.

After the discussion in the dining room ended, the parties proceeded to the Cole's powerplant and then on to the point of diversion (POD) on Stanshaw Creek. The flow was too low to generate power but water was being bypassed around the plant for irrigation. Complaint Unit staff visually estimated this flow to be approximately 0.6 cfs. The flow in Stanshaw Creek immediately upstream of the POD was measured with a current velocity meter to be 1.16 cfs. The creek in this reach consists of large boulders that form a fairly continuous group of cascading pools. There was no section where a highly accurate flow measurement could be made due to the steep grade and large numbers of rocks, many of which can be washed downstream during high flow events. The flow in the diversion canal just below the POD was measured to be 0.68 cfs using a current velocity meter.

The inspection party then proceeded to the lower reach of Stanshaw Creek along the property owned by Mr. Fischer. The creek would normally end in a small pool that is separated at low flows from the river by a sand bar on which extensive amounts of phreatophytic vegetation exists. The Fisher's caretaker indicated that he maintains a hand-dug channel between this pond and the river along the downstream periphery of the sand bar during the summer, low-flow period, to enable juvenile fish to enter the lower reach of the creek. Flow in the creek about 100 - 200 feet above the terminal

pool was estimated¹ to be no more than 0.41 cfs. Water temperature was measured during the mid-afternoon period to be 56°F. At low flows², the entire reach of Stanshaw Creek between the highway and the confluence with the Klamath River is essentially a series of cascading pools. The stream in this reach is covered by a dense riparian canopy. Complaint Unit staff asked Dr. Li if juvenile fish would have a difficult time accessing these pools with the existing flows as there were no runs or riffles present, only cascades between each pool. Dr. Li stated that juvenile fish would have no problem accessing the pools with the flows occurring during the inspection. The inspection ended at this time.

ANALYSIS

The following issues need to be addressed in order to resolve the current complaint:

1. Unauthorized diversion
2. Adverse impacts to prior right holders
3. Unreasonable impacts to public trust resources

Unauthorized Diversion of Water

The KFA contends that the Coles do not have sufficient pre-1914 appropriative rights to justify current diversions. The Cole's legal counsel has responded by claiming pre-1914 appropriative rights for all diversions. Past correspondence prepared by various individuals within the Division has contained questions about the validity of these claims. However, the SWRCB does not have adjudicatory authority regarding pre-1914 appropriative rights. When allegations are made that a pre-1914 appropriative right does not exist or is inadequate to justify all existing diversions, Complaint Unit staff analyze the situation to see if they believe sufficient evidence is available to dispute the claimed rights such that a court of competent jurisdiction would likely agree. If such evidence exists, Complaint Unit staff typically recommend that the diverter be asked to take action to rectify the unauthorized diversion. If the diverter fails to take adequate action, appropriate enforcement action may follow.

At the meeting previous to the physical investigation, Complaint Unit staff explained that recently provided evidence by the Cole's legal counsel in response to the complaint appeared to support a claim that diversion from Stanshaw Creek to the Marble

¹ - The stream did not contain a smooth flowing section in this reach in which to take a standardized flow measurement. Consequently, the flow was estimated with a current velocity meter by measuring the general dimensions of a "v"-shaped spill plume from a pool and the central velocity of the plume.

² - Based on visual observation of the hydraulic characteristics of the lower stream channel in relation to the flow measured during the field investigation, Complaint Unit staff believe that this lower reach of Stanshaw Creek remains a series of cascading pools until flows in the creek become large in comparison to the Cole's ability to divert water (e.g., >15 cfs flow vs 3 cfs diversion).

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Mountain Ranch was initiated well before 1914 for domestic and irrigation purposes, and has been maintained in a continuous or diligent fashion ever since. Complaint Unit staff believe that the current diversion and use of water for domestic and irrigation purposes is no greater than and, quite possibly, somewhat smaller than maximum historic diversions as a portion of the area that was apparently irrigated for many years both before and after 1914 has been converted to resort housing or other facilities, and is no longer being irrigated.

Even though legal counsel for the Coles claimed a pre-1914 appropriative right for power purposes in her letter of August 20, 2001, Complaint Unit staff are not aware of any specific evidence supporting such a claim. Based on previous discussions with Mrs. Cole's father, Mr. Squires, Complaint Unit staff currently believe that the initial application of water for power purposes occurred shortly after the end of World War II, even though the original pelton wheel employed dates from the early 1900's. However, Application A029449 is pending and, if approved, would cover all existing and anticipated diversions for power purposes.

While diversions pursuant to a pending application are technically not authorized until a permit is actually issued, diversions prior to a determination regarding issuance of a permit is very common, especially for long-standing diversions such as the Cole's. The SWRCB has discretion whether to take enforcement action against an unauthorized diversion of water. Upon reviewing a complaint, the SWRCB may decide not to take enforcement action, or to defer consideration of enforcement. The SWRCB may consider several factors when deciding whether to pursue enforcement. One factor the SWRCB weighs is the willingness of the water diverter to legitimize the diversion. The SWRCB may choose not to enforce against a person who files an application promptly upon notification of the complaint, and diligently pursues the application, including cooperation in providing information requested by the SWRCB and compliance with other requirements of the application process. While the Cole's application (A029449) has been pending for an extraordinarily long time, there is no indication in the application file that the Coles have not pursued approval of their application in a diligent fashion.

Another weighed factor is the extent of injury caused by the water diversion. If an investigation shows the unauthorized diversion is causing little or no injury to established right holders or to public trust values, the SWRCB may decide not to take enforcement action. The SWRCB may also consider the degree of hardship enforcement would impose on persons who rely on the diversion of water in deciding whether to take enforcement action in response to a complaint. The application of these factors, as they apply to this complaint, are discussed below.

Adverse Impacts to Prior Right Holders

While the KFA complaint does not contain allegations that the Cole's diversions are adversely impacting downstream diverters, a protest was filed against A029449 by T. James Fisher, J.W. Fisher Logging Company, and Phylis Fisher alleging potential injury to prior rights. In view of the KFA complaint and the inspection by Complaint Unit staff, the potential for adverse impacts to downstream diverters along Stanshaw Creek is also being evaluated as part of this investigation.

According to the caretaker for the Fisher property, water is diverted from Stanshaw Creek a short distance downstream of the Highway 96 culverts for domestic and some minor irrigation use. Diversions at this location apparently began after 1914. The Division has no record of a post-1914 appropriative right covering this diversion. Consequently, these diversions are presumably made under a riparian claim of right³. Complaint Unit staff are not aware of any evidence that would suggest that such a claim of right would not be upheld by a court of competent jurisdiction.

Complaint Unit staff understand that the Cole's basis of right for diversion from Stanshaw Creek consists of:

1. Pre-1914 appropriative claim of right for domestic / irrigation use. This right has not been quantified or a definitive priority established by court action. The maximum diversion rate that might be justified is the capacity of the ditch. The date of priority for this right may be as early as 1880.
2. Application A029449 – This pending application is for 3.0 cfs year round diversion for power purposes. A permit has not been issued for this application. Consequently, diversion of water under this right has not been approved. The date of priority for this right, if the application is approved, would be March 27, 1989.
3. Small Domestic Registration D030945R – This certificate authorizes year round diversion to off-stream storage of up to 10 acre-feet per annum in the small reservoir located near the bottom end of the Cole ditch. The date of priority for this right is September 17, 1999.

The Fisher riparian claim of right has a higher priority than that of A029449 and D030945R. The relative priorities of the Fisher riparian claim and the Cole's pre-1914 appropriative claim of right is more difficult to evaluate. Only a court of competent jurisdiction has the power to adjudicate these rights. Riparian rights typically have the highest priority in California. However, a riparian right attaching to a particular parcel of

³ - The Division has no record of a Statement of Water Diversion and Use (Statement) being filed for this diversion and use of water. Unless this diversion and use is included in the reports of some other entity, a Statement should be filed.

land is generally subject to appropriative rights established by diversion upon the vacant public domain before the first valid steps were taken to acquire said parcel of land from the United States, whether diversion was made at points upstream or downstream. Because diversion of water to the Cole's property may have been initiated before steps were taken to obtain the Fisher property from the government, the Cole's pre-1914 appropriative claim of right may have a higher priority than the Fisher riparian claim of right.

Flows in Stanshaw Creek will most likely be sufficient to satisfy the demands of both the Cole and the Fisher interests except during the low flow periods of the irrigation season. During this period of time, the diversion of water pursuant A029449 and D030945R is often incidental to the Cole's pre-1914 claim of right. Consequently, unless all or a portion of the Cole's diversion of water is being made exclusively for: (1) power purposes or (2) to fill the small reservoir on the Cole property, any disputes over competing rights would need to be resolved in the court system by determining the relative priorities of the riparian and pre-1914 appropriative claims of right.

Unreasonable Impacts to Public Trust Resources

Complaints containing allegations of unreasonable adverse impacts to public trust resources by diverters are often evaluated differently depending upon the basis of right. If the diverter appears to possess a valid basis of right for the diversion, evidence must be available to support allegations that the water diverted has caused, or is likely to cause, an unreasonable adverse impact to the public trust, i.e. the public's right to use the State's waters for instream purposes such as recreation, navigation, and fish and wildlife⁴. In order to make this finding, evidence should be available to demonstrate that:

- a. public trust resources exist in the stream;
- b. these resources are being adversely impacted due to the diversions from the stream by the water right holder and not by normal variances in the water supply or other factors that are beyond the control of the water right holder, such as land use development, discharge of pollutants, etc. by other parties;
- c. the impacts on public trust resources are significant, considering both the magnitude of the impact and the sensitivity and significance of the public trust resources affected; and

⁴ - In other words, evidence must be available to demonstrate the likelihood that unreasonable impacts are occurring rather than requiring the diverter to demonstrate that adverse impacts are not likely to occur. This is synonymous with the "*innocent until proven guilty*" concept of the law.

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- d. the protection of public trust resources is feasible, considering any reduction or cessation of diversions that may be necessary to protect the public trust and whether the public interest in those diversions may outweigh the adverse impacts on the public trust.

If the diversion is being made pursuant to a pending application for which a permit is being diligently pursued and "prima facie" evidence is available suggesting that the diversion may be causing adverse impacts to public trust resources, the Division will typically direct the diverter to take action to prevent or mitigate the impacts or, if necessary, terminate the diversion.

With respect to the Cole's diversion pursuant to their pre-1914 appropriative claim and D030945R, the burden of demonstrating that public trust resources are being adversely impacted in an unreasonable fashion rests with the KFA. The test of potential harm and need for corrective action is considerably less for the Cole's pending application.

The KFA alleges that the Cole's diversion of water is adversely impacting anadromous fish that utilize Stanshaw Creek. Very little information is available regarding the use of this water body by anadromous fish. The DF&G submitted a memorandum dated November 20, 2001, and the NMFS submitted a letter dated November 15, 2001, (copies attached) regarding the Cole's diversion of water. Both documents discuss the status of anadromous fish pursuant to state and federal endangered species laws and make recommendations regarding "protest dismissal terms". However, the complaint investigation process is not intended to resolve "protests". Instead, the purpose of a complaint investigation is to determine what type of evidence is currently available. Neither one of these documents provides or references much evidence.

Complaint Unit staff believe that use of Stanshaw Creek by anadromous fish is generally limited to the reach from the Highway 96 culverts to the Klamath River. These culverts appear to have been designed to be self-cleaning due to the steep slope. Complaint Unit staff noted that there was essentially no sediment or debris inside these culverts, indicative that high scour velocities are maintained. High water velocities coupled with the length of these conduits probably prevent movement of spawning or juvenile fish upstream. This conclusion appears to be consistent with those of both the DF&G and the NMFS. The NMFS letter states: "*The culvert under Highway 96 at Stanshaw Creek is listed on resource agencies master list for culverts with passage problems. CalTrans has stated that they will replace the culvert in the future to allow salmonid passage.*" While removal of the culverts might change the situation, this task will be a significant undertaking and is not likely to occur anytime soon. Consequently, until such time as the culverts are actually removed, Complaint Unit staff believe that only those actions by the Coles that would have a bearing on the health and well being of fishery resources in Stanshaw Creek between Highway 96 and the Klamath River need be addressed.

The DF&G memo contains the following recommendation:

The Department proposes year-round bypass flows of 2.5 cubic feet per second (cfs) to be measured at the culverts below Highway 96 to mitigate potential impacts from the diversion on Stanshaw Creek. Our objective for these flows is to ensure existing instream habitat conditions in Stanshaw Creek for coho salmon and steelhead are maintained, water temperatures remain cold and year-round access to the stream from the Klamath River is guaranteed. To accomplish this objective, we recommend the total stream flow be bypassed whenever it is less than the designated amount. Based on field reviews and best professional judgment, it was determined that 2.5 cfs should maintain connectivity and an adequate channel which allows salmonids access to Stanshaw Creek from the Klamath River. However, the Department may require additional bypass flows in the future if conditions change such that 2.5 cfs is no longer adequate to allow salmonid passage at the mouth of Stanshaw Creek. Future modification of the barriers or more detailed studies may also indicate a need for higher instream flows.

During the meeting portion of the inspection, biologists representing the DF&G, the NMFS, and the Karuk Tribe all stated that temperatures in the Klamath River often reach lethal levels during the warmer months of the year. They believe that small, side tributaries with cold water flows such as Stanshaw Creek provide "thermal refuges" that are crucial to the survival of juvenile anadromous fish.

On the day of the complaint inspection, water temperature was measured at 52°F in the early morning with a flow of 0.61 cfs⁵. Water temperature in the mid-afternoon downstream of the "Fisher" POD was measured at 56°F with a flow of 0.41 cfs⁶. Water temperature was measured by Division staff on July 26, 2000, and found to be 54°F. No flow measurements were taken at that time, but photographs of the culverts indicate that flows were higher; possibly in the 2-3+ cfs range. According to the Environmental Field Report for this visit, water temperature is not an issue. Complaint Unit staff agree. The lower portion of Stanshaw Creek contains excellent cover and there is no evidence currently available to indicate that the Cole's diversion of water creates a temperature

⁵ - Making good flow measurements in a channel containing mainly pools and cascades with a current velocity meter is extremely difficult. Consequently, these measurements are not considered highly accurate, but instead should only be used for an idea of the relative amounts of flow present.

⁶ - This measurement was made at the request of KFA and fishery representatives. Complaint Unit staff were reluctant to undertake a measurement in a reach of the creek that consisted solely of pools and cascades. This measurement was quite rudimentary and may only have an accuracy of ±50%.

problem in the reach between Highway 96 and the Klamath River as long as minimum flows are maintained similar to those occurring during the complaint investigation.

The reach of Stanshaw Creek between the Highway 96 culverts and the Klamath River consists of a series of cascading pools with essentially no runs or riffles present during periods of low flow. Complaint Unit staff believe that this lower reach of Stanshaw Creek remains a series of cascading pools until flows in the creek become quite large in comparison to the Cole's ability to divert water. Bypass flows on the order of $\frac{1}{2}$ to 1 cfs should produce essentially the same amount and quality of habitat as flows on the order of 2 – 3 cfs. Consequently, as summer flows decrease due to either a recession in the natural hydrograph or diversions by the Coles, there shouldn't be much change in the spatial habitat available to fish.

The channel configuration indicates that winter flows are much higher than the flows the Coles might divert. These flows may produce conditions that allow anadromous fish to spawn. However, diversion by the Coles during these periods should also have negligible effect on the fish.

The fishery biologists pointed out that the cold water habitat of Stanshaw Creek is of little value if the Coles do not bypass sufficient flows of water to provide access between the river and the creek. Our inspection revealed that there was no natural surface connection between the creek and the river at the time of the inspection. Flows in the creek terminated in a pool that is separated at low flows from the river by a sand bar on which extensive amounts of phreatophytic vegetation exists. Significant quantities of water can no doubt seep through the sand bar before a natural surface flow connection with the river occurs. The sand bar is most likely a dynamic phenomenon and may not be in place every year or at all times of the year. However, the extent of the vegetation on the sand bar indicates that this is not a fleeting fixture.

While at times there may not be a natural surface connection with the river, the caretaker for the Fisher property showed us a hand-dug channel that he maintains between the river and the pond. This channel provides some access to the creek and the thermal refuge found therein. Consequently, there is a benefit in maintaining sufficient flow in the lower reach to keep the artificial channel flowing. Dr. Li indicated that the flows existing at the time of the inspection were quite adequate to provide for passage of juvenile fish from the river to the thermal refuge in the pools. Consequently, flows similar to those observed during the inspection on October 17, 2001, would appear to be adequate.

Undertaking measurements of flows in the creek would be an extremely difficult, if not impossible, task. Conditions in the creek are such that installation of a device(s) that would enable measurement of flows (e.g., flume, weir, or stage vs. flow correlation) would require a major construction effort coupled with maintenance and possible reconstruction on a continual basis. A more practical method of measuring bypasses

would be to divert all of the low flows into the Cole's ditch and use an appropriately designed "splitter box" to ensure that a minimum flow is returned back to the creek in the immediate vicinity of the diversion. However, this would require the construction of a dam to direct all flow into the ditch before returning a set amount or percentage of flow back to the creek. The DF&G has obtained an injunction that prohibits installation of such a dam. Consequently, a reasonable request would be that the Coles bypass sufficient flow at all times at their POD to provide continuity of flow between Stanshaw Creek below the Highway 96 culverts and the Klamath River. If the Fisher's caretaker does not maintain the artificial channel between the terminal pool and the river, the Coles should still bypass sufficient water to maintain flow between the pools located downstream of the Highway 96 culverts in order to maintain habitat for any fishlife that is present in this reach. If the DF&G is willing to allow full diversion of the creek into the Cole's ditch, a measurable bypass requirement should be established, probably on the order of ½ to 1 cfs based on further analysis of the amount of bypass necessary to maintain hydraulic continuity between lower Stanshaw Creek and the Klamath River.

The KFA did not file a complaint against the Fishers and neither the DF&G or the NMFS have indicated any concerns with their diversion. However, the Fisher diversion is capable of removing water from Stanshaw Creek in the same manner as the Cole's diversion; albeit at a smaller rate. Consequently, if flows in lower Stanshaw Creek are inadequate to maintain public trust resources, the Fishers may also need to reduce their diversion of water. Determining which diversion needed to be reduced first, either the Cole's or the Fisher's, could only be established after a court rules on the relative priorities of both diversions.

PHYSICAL SOLUTION

There may be a physical solution that would be of benefit to all sides of this situation. The "fishery advocates" would like to see more water passed below the Cole's POD. The Coles want to be able to divert sufficient water to generate power and maintain consumptive water uses at their guest ranch. One way of possibly meeting both interests would be to move the power generation facility completely into the Stanshaw Creek watershed. This would require construction of a diversion dam capable of diverting most, if not all, of the flow of the creek into a penstock. The generating unit would be located down gradient along the creek, possibly immediately upstream of the Highway 96 culverts. Power would be transmitted over the drainage divide to the guest ranch. The diversion dam could be designed and constructed to provide a minimum bypass flow before any water is diverted from the creek to maintain a minimum flow between the diversion structure and powerplant discharge. A consumptive use water supply line(s) could also be run from the diversion dam to the ranch to provide a pressurized water system capable of operating an automated sprinkler irrigation system and domestic water supply system.

The Coles would benefit with increased power production especially during the summer, low flow season. This would save them considerable costs associated with generating power using an expensive fossil fuel generator. The pressurized water line(s) would also allow them to develop a more efficient irrigation system that could be automated; thus saving labor costs as well. The pressurized system would also reduce the amount of labor required to maintain the current ditch; especially during storm events when overland runoff coupled with fallen leaves and tree limbs pose a significant threat to the integrity of the ditch.

The "fishery advocates" would benefit by seeing dramatically increased flows in the lower reaches of Stanshaw Creek during the summer, low-flow period due to a reduction in the amount of water diversions necessary to maintain the current irrigation, domestic, and power uses⁷. Complaint Unit staff are not currently aware of compelling evidence suggesting that a significant benefit would accrue to instream uses of water by increasing the flow over that currently existing in this reach of the creek during the low-flow period of the year. However, the complainant, DF&G, NMFS, and many interested parties seem to believe that substantial benefit would be gained. Because determining appropriate instream flow needs is not an exact science, providing additional flows might provide some, as yet, undocumented benefits to instream uses. Complaint Unit staff are not aware of any adverse impacts that would occur by increasing instream flows if a physical solution were to be implemented. Erring on the side of public trust uses is always desirable; especially if the rights of consumptive water users can be maintained or enhanced at the same time.

In order to implement a physical solution such as described above, the penstock and powerplant would need to be relocated onto land currently owned by the U.S. Forest Service. The Cole's diversion and conveyance ditch were initiated before the National Forest was established. This has essentially "grandfathered" these facilities and has most likely significantly reduced the amount of regulatory authority the Forest Service has over these facilities. Moving the penstock and powerplant would subject the Coles to additional regulation by the Forest Service. In view of the concerns expressed by the "fishery advocates" including the protests and complaints filed, the Coles are not likely to be willing to enter into a physical solution unless adequate guarantees can be provided that their diversion and use of water would not be placed in any greater jeopardy than currently exists. This might necessitate a land exchange with the Forest Service or development of some other type of legal agreement or contract between the parties.

⁷ - Application 29449 has not yet been approved. Complaint Unit staff assume that any permit that may be issued pursuant to this filing will be conditioned upon compliance with all necessary activities to prevent any unreasonable adverse impacts to instream uses. Consequently, a physical solution would not provide much benefit based strictly upon diversions for power purposes. Most of the benefit would be based on reductions to diversions for irrigation and/or domestic uses.

CONCLUSIONS

1. A court of competent jurisdiction would most likely confirm that the Coles have a valid pre-1914 appropriative right to divert water from Stanshaw Creek for full domestic and irrigation purposes at the Marble Mountain Ranch.
2. Evidence has not been submitted to substantiate a pre-1914 appropriative right for power purposes but A029449, if approved, should cover all diversions for power purposes.
3. With the current irrigation system, most diversions for power purposes during the low-flow periods of the year are incidental to domestic and irrigation needs.
4. Prima facie evidence is available to indicate that lower Stanshaw Creek does provide habitat for "thermal refuge" when temperatures in the Klamath River become detrimental to the health and well being of fish life.
5. Bypasses similar to those present during the field investigation should provide adequate habitat for thermal refuge purposes.
6. Measuring flows on a regular basis in Stanshaw Creek is not practical. Any requirement to measure minimum bypass flows should not be established unless the requirement acknowledges that a sufficient diversion of water will be allowed into the Cole's ditch to cover both the diversion and bypass requirement with subsequent measurement and release of bypasses back into the stream.
7. Considerable benefit might accrue to all sides of this dispute if an appropriate physical solution were to be implemented.

RECOMMENDATIONS

1. That the Coles be directed to cease all diversion of water whether pursuant to a pre-1914 appropriative claim of right or post-1914 appropriative rights derived from Application 29449 or Small Domestic Registration D030945R unless sufficient flow is passed below their POD to maintain a flow in lower Stanshaw Creek below the Highway 96 culverts similar to that present during the October 17, 2001, field investigation (≈ 0.7 cfs).
2. That the required bypass flow be determined in one of two fashions:
 - a) if full diversion of the creek into the Cole's ditch is not allowed, the flow should be visually estimated so that sufficient flow would be available to fill a small,

hand-dug ditch between the terminal pool of Stanshaw Creek and the Klamath River; or

- b) if full diversion of the creek into the Cole's ditch is allowed, a device shall be installed capable of bypassing sufficient flow to maintain 0.7 cfs in the creek below the Highway 96 culverts before any water is passed down the diversion ditch to Marble Mountain Ranch.
3. That the complaint filed by KFA against the Coles be closed.
4. That the parties give serious consideration to a physical solution similar to that discussed above.