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ORIGINAL FILED  
APR 30 1992  
LOS ANGELES  
SUPERIOR COURT

7 Attorney for Plaintiffs/Petitioners  
8 TROUT UNLIMITED OF CALIFORNIA, a chartered  
9 state council of Trout Unlimited, Inc. and  
10 TROUT UNLIMITED, INC., a non-profit  
11 Michigan corporation

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES

14 TROUT UNLIMITED OF CALIFORNIA, a )  
15 chartered state council of Trout )  
16 Unlimited, Inc., and TROUT )  
17 UNLIMITED, INC., a non-profit )  
18 Michigan corporation, )  
19 Plaintiffs/Petitioners, )  
20 v. )  
21 STATE OF CALIFORNIA DEPARTMENT )  
22 OF FISH AND GAME and DOES 1-5, )  
23 inclusive, )  
24 Defendants/Respondents. )

CASE NO. **BS016304**  
PETITION FOR A PEREMPTORY WRIT  
OF MANDATE TO COMPEL  
PREPARATION OF AN  
ENVIRONMENTAL IMPACT REPORT  
PURSUANT TO CALIFORNIA  
ENVIRONMENTAL QUALITY ACT

23 COMES NOW, THE PLAINTIFFS/PETITIONERS TROUT UNLIMITED OF  
24 CALIFORNIA, AND TROUT UNLIMITED, INC.:

25 1. Defendant/respondent, California Department of Fish and  
26 Game (hereinafter "CDFG") is a public agency of the State of  
27 California charged with, among other things, the management and  
28 protection of fish and wildlife in the State of California and the



1 enforcement of all laws pertaining to the protection and  
2 enhancement of those fish and wildlife resources.

3 2. Plaintiff/petitioner, Trout Unlimited of California is a  
4 non-profit, nonpolitical and nonsectarian organization of  
5 California residents interested in promoting the wise management  
6 and protection of wild trout, steelhead and salmon populations in  
7 California waters and the natural ecosystem which supports these  
8 and other valuable cold water fisheries.

9 3. Plaintiff/petitioner, Trout Unlimited, Inc. is a non-  
10 profit, charitable, educational and scientific corporation  
11 organized under the laws of the State of Michigan and pursuant to  
12 Chapter 501(c)3 of the Internal Revenue Code.

13 4. The goals and activities of Trout Unlimited of  
14 California and Trout Unlimited, Inc. (hereinafter collectively  
15 "TROUT UNLIMITED") are exclusively directed toward preserving,  
16 protecting, restoring and monitoring cold water fishery resources  
17 throughout California and the entire nation. TROUT UNLIMITED  
18 accomplishes its mission through professional staff and a  
19 nationwide network of grassroots volunteers whose coordinated  
20 actions include legal, legislative and administrative resource  
21 advocacy and habitat improvement.

22 5. TROUT UNLIMITED is the nations's leading resource-  
23 oriented fishermen's group with approximately 70,000 members  
24 across the country including over 5,200 members in the State of  
25 California. Virtually all of the TROUT UNLIMITED members in  
26 California purchase fishing licenses from the California  
27 Department of Fish and Game and are acutely interested in  
28 preserving and protecting cold water fisheries in the State of



1 California. The interests of the members of TROUT UNLIMITED are  
2 being adversely affected by the acts of CDFG as set forth herein.

3 6. On April 2, 1870 the California State Legislature  
4 enacted legislation empowering the CDFG to build and operate  
5 publicly owned "fish breederies" to rear and release foreign and  
6 domestic fish species into the waters of the State of California.

7 7. The public trout hatcheries were originally operated in  
8 conjunction with egg collecting stations where eggs and sperm were  
9 collected from wild trout for purposes of artificial insemination  
10 and hatchery propagation. Due to the combination of an increasing  
11 population interested in trout fishing, rapidly declining natural  
12 habitat, and unrealistic expectations of "successful" fishing  
13 experiences caused and reinforced by inappropriate fishing  
14 regulations, CDFG hatcheries have attempted to maximize fish  
15 production by concentrating their efforts on those varieties of  
16 trout that are best adaptable to high-yield, mass-production,  
17 hatchery operations.

18 8. Plaintiffs/petitioners are informed and believe and  
19 thereupon allege that defendant/respondent CDFG presently operates  
20 at least fourteen (14) trout hatcheries throughout the State of  
21 California, which facilitate the alleged rearing and stocking of  
22 approximately twenty-three (23) million trout annually, including  
23 some twelve (12) million that are six inches (6") in length or  
24 greater and are therefore deemed by the CDFG to be immediately  
25 "catchable." Plaintiffs/petitioners are informed and believe that  
26 these figures are gross estimations by CDFG based upon hatchery  
27 capacity and not related to an actual count of fish delivered into  
28 the water.

- Calif.  
Action  
Sec.



9. The State of California Fish and Game Commission has promulgated and published the following policy statements concerning the operation of fish hatcheries and the stocking of fish from those hatcheries in the waters of the State of California by the CDFG:

"It is the policy of the Fish and Game Commission that:

I. Natural reproduction and rearing of trout will be encouraged to the greatest extent possible by protecting and improving habitat and by affording protection from disease, predators and competing fish species.

II. Optimum populations of wild trout shall be sustained in the suitable waters throughout the state by restricting angler harvest to the extent that such harvest has virtually no long-term effect on numbers and sizes of fish in the populations.

III. Artificial propagation and rearing of trout is a major Department program, but will be utilized only when necessary to augment the natural supply. Exclusive of steelhead, fingerling and subcatchable-sized trout shall take priority over catchables in the hatchery stocking program when the smaller fish will maintain satisfactory fishing. Satisfactory is an average of two fish per angler day or one-half fish per angler hour.

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1 IV. Catchable-sized trout shall be stocked only:

2 A. In heavily fished roadside lakes and streams  
3 where natural reproduction and growth are inadequate to  
4 meet satisfactory fishing;

5 B. When it is reasonable to expect at least 50% <sup>- 60-75%</sup>  
6 by number of weight will be taken by anglers; and <sup>- 80-90%</sup>

7 C. Where fishing pressure is high because of a  
8 lack of more suitable waters." (Emphasis added.)

9 10. Plaintiffs/petitioners are informed and believe and  
10 thereupon allege that the CDFG trout hatchery and stocking  
11 programs have resulted in the following adverse cumulative  
12 environmental consequences all in direct violation of the State of  
13 California Fish and Game Commission policies, rules and  
14 regulations set forth in Paragraph 9 above:

15 a. Native species of fish, including golden trout  
16 and several varieties of cutthroat trout, have been  
17 endangered to the point of extinction in their native <sup>- Ind. L.</sup>  
18 watersheds due to <sup>hybridization - w/ stocked hatchery</sup> genetic drift (i.e. the introgression  
19 of maladaptive genes due to interbreeding with non-  
20 native and hatchery fish) caused by the inappropriate  
21 stocking of hatchery fish;


22 b. Wild trout spawned and reared under natural  
23 conditions are negatively effected by the stocking of  
24 hatchery fish due to <sup>space - behavior</sup> competition for critical habitat  
25 and food; <sup>territoriality</sup>

26 c. Stocked hatchery trout cause serious  
27 disruptions to a wild trout population in the same water  
28 due to the conditioned behavioral mannerisms of the



1 hatchery trout which are appropriate in a hatchery but  
2 which are entirely aberrant in a natural environment;

3 d. Hatcheries can cause significant downstream  
4 water pollution and other localized habitat destruction  
5 as a consequence of their operation;

6 e. The costs associated with the operation of  
7 trout hatcheries consume a disproportionate share of the  
8 CDFG's annual budget in comparison with funds spent to   
9 preserve and restore critical cold water fishery 70  
10 habitat;

11 f. Hatcheries, which are often characterized by  
12 overcrowding, poor water quality and other conditions  
13 contributing to stress, are fertile grounds for  
14 catastrophic outbreaks of diseases such as infectious  
15 hematopoietic necrosis, furunculosis, bacterial kidney  
16 disease, whirling disease, fungal infections, viral  
17 hemorrhagic septicemia and many others. These disease  
18 problems are made more serious by the fact that  
19 artificial selection and genetic drift of the fish in  
20 many hatcheries reduces genetic variation and disease  
21 resistance; *Mega hatcheries = megacysts, trypsin*

22 g. Transfers of hatchery trout facilitate the  
23 spread of pathogens such as Myxosoma cerebralis, the  
24 internal protozoan responsible for a deadly condition  
25 known as whirling disease. In 1985 alone, more than  
26 2.35 million hatchery trout were destroyed in hatcheries  
27 located in Inyo County to prevent further infestation of  
28 whirling disease;



1 h. As many as fifty percent (50%) of the trout  
2 reared in some of the CDFG's hatcheries are consumed  
3 while still in the hatcheries by predacious wild birds  
4 due to the open troughs of overcrowded fish and the of  
5 lack evasive, defensive instincts in hatchery fish; and

6 i. Surviving catchable-sized hatchery trout are  
7 stocked in virtually all waters accessible by road so  
8 long as water temperatures are compatible with marginal  
9 survival despite the fact that the average return by  
10 fisherman is often thirty-five percent (35%) or less.

11 j. The effective gross cost of catchable hatchery  
12 trout that are actually caught by licensed fisherman is  
13 estimated by CDFG to be close to \$4.00 per pound, — *economic*  
14 although that figure is anticipated to be potentially *cost*  
15 much higher. *accounting*

16 11. At least annually the CDFG makes discretionary decisions  
17 concerning the operation of its trout hatcheries and its fish  
18 stocking program including but not limited to: (1) which  
19 hatcheries to operate and at what capacity; (2) what fish species  
20 to propagate and rear; (3) the number and size of fish to stock;  
21 (4) the waters to be stocked; and (5) the timing of each stocking.

22 12. At least bi-annually the CDFG participates in the  
23 discretionary decisions of the California Fish and Game Commission  
24 concerning sportfishing regulations including the number, size and  
25 method of take for each fish species in each individual body of  
26 water with respect to wild and hatchery trout.

27 13. At no time has the CDFG prepared any adequate  
28 environmental impact reports on its trout hatchery and stocking



1 programs as is required under the California Environmental Quality  
2 Act. As a consequence discretionary decisions are undertaken  
3 without knowledge, disclosure and/or consideration of the negative  
4 environmental impacts of the trout hatchery and fish stocking  
5 programs.

6 14. Plaintiffs/petitioners have no plain speedy and adequate  
7 remedy in the ordinary course of law, other than by the relief  
8 sought in this Petition.

9 15. This Petition is brought to enforce an important right  
10 affecting the public interest under CEQA and, by this action,  
11 plaintiff/petitioner shall confer a significant benefit on the  
12 public. It is therefore appropriate, in light of the financial  
13 burden of private enforcement, that this Court award attorneys'  
14 fees to the plaintiff/petitioner for the prosecution of this  
15 Petition pursuant to Code of Civil Procedure §1021.5.

16 WHEREFORE, plaintiffs/petitioners pray as follows:

17 1. For a Peremptory Writ of Mandate, pursuant to Code of  
18 Civil Procedure §1094.5, directed to defendant/respondent, State  
19 of California Department of Fish and Game, its employees, agents,  
20 officers and all persons acting in its behalf or in concert with  
21 it to prepare in a timely fashion an adequate environmental impact  
22 report concerning the trout hatchery and stocking programs  
23 conducted by said defendant/respondent;

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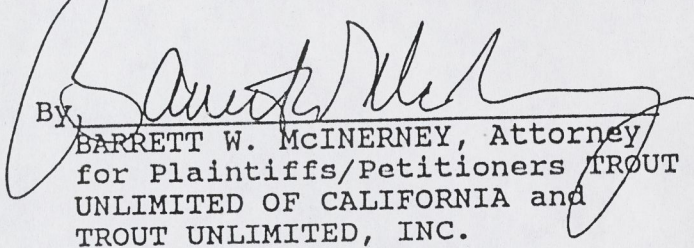


1           2. For plaintiffs/petitioners to recover their costs in  
2 this action including reasonable attorneys' fees pursuant to Code  
3 of Civil Procedure §1021.5; and

4           3. Such other and further relief as this Court may deem  
5 just and proper, including injunctive relief if and when  
6 appropriate.

7 Dated: April 29, 1992

LAW OFFICES OF BARRETT W. MCINERNEY

8  
9 BY:   
10 BARRETT W. MCINERNEY, Attorney  
11 for Plaintiffs/Petitioners TROUT  
12 UNLIMITED OF CALIFORNIA and  
13 TROUT UNLIMITED, INC.  
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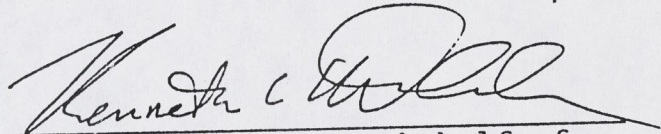


VERIFICATION

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I, Kenneth C. Walsh, state and declare as follows:

I am a vice-president and corporate officer of Trout Unlimited, Inc., and a member of Trout Unlimited of California, the plaintiffs/petitioners in this proceeding. The facts alleged in the above Petition are true of my own knowledge except those which are alleged under information and belief which I believe to be true and correct. I declare under penalty of perjury under the laws of the State of California, that the above is true and correct and that this verification is executed on April 29, 1992 in Van Nuys, California.



KENNETH C. WALSH on behalf of  
Plaintiffs/Petitioners TROUT  
UNLIMITED OF CALIFORNIA and  
TROUT UNLIMITED, INC.



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State of California

Department of Justice  
1515 K Street, Suite 511  
P.O. Box 944255  
Sacramento, CA 94244-2550

Memorandum

To : Barrett W. McInerney  
Attorney at Law  
5900 N. Sepulveda Blvd., Ste. 415  
Van Nuys, CA 91411-9998

Date : March 8, 1993  
Telephone: ATSS ( 8 ) 454-4913  
(916) 324-4913  
FACSIMILE (916) 324-5567

From : WILLIAM D. CUNNINGHAM  
Deputy Attorney General  
Natural Resources Law Section  
Office of the Attorney General - Sacramento

Subject :

Tim Farley and his staff suggest the following issues for our first meeting. Let me know what issues you wish to examine.

1. Hatchery trout, which survive and interbreed with wild stocks, have had a detrimental effect on the genetics of the wild stocks.
2. Hatchery trout compete with wild stocks for both food and habitat, to the detriment of the wild stocks. And the behavior of hatchery trout "disrupts" wild trout when they are placed together.
3. The operation of hatcheries can cause significant water pollution and localized habitat destruction.
4. [The Department of Fish and Game spends too much on hatcheries and not enough on preservation and restoration of critical coldwater fishery habitat.
5. Hatcheries have catastrophic outbreaks of disease, and these disease outbreaks affect wild trout populations. Planted hatchery trout also spread pathogens to other fish.
6. [Catchable trout are planted in roadside waters even if the return rates to the angler are less than 50% by number or weight as required by Fish and Game Commission policy.

*Critique: Exp. Hatch - Phil Aista  
- Fishing license sales*

*catchables -  
sub catch. } benign water  
for } no 50% catch.  
pred. ca*

*Kokanee sterile  
spike well  
wild water  
for*

*Acres: A. no. rise - non-hatchery  
- catch  
red blood Microsporid  
Trophy*

*Boat trout) (Kokanee)  
Eagle L. Goose L. increase diversity of upstream  
Pyrosoma L.*

*Pay. genet  
Ev. Genet  
Pyrosoma  
- Ev. N.S.  
- Autifusible*



Ind. L - 1959-

Rolls

Index - 1972 - RB



<u>Name</u>	<u>Affiliation</u>	<u>Address</u>
Almo J. Cordone	Dept. Fish and Game	Cal. Fish + Game, Sacto 95814
Tim Farley	Calif. Dept. of Fish + Game	1416 Ninth St. Sacramento
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LEO T. CROVIN	" "	12 SAN GABRIEL CT FAIRFAX 94930
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Terry D. Roelofs	Fisheries Dept Humboldt St. Univ.	Arcata, Ca 95521
Ray J. White	Independent Habitat Consultant	320 - 12th Av. N Edmonds, WA 98020
Bob Behnke	Dept. Fishery & Wildlife Colo. ST. Univ.	Font Collins, CO 80523
KEN HASPAGEN	CDF & G	SACRAMENTO
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Bill Cunningham	Calif. Attorney General	1512 K Street Sac.
Barrett McInerney	Trout Unlimited Atty	5900 N. Sepulveda Blvd #415 Van Nuys CA 91411
Rayce Quarter	DFG - Region 3	3246 Skaggs Springs Rd Geyserville, CA. 95441
BRUCE BARNGROVER	DFG Reg 2 Hatcheries	RANCHO CORDOVA
MIKE COCHRAN	DFG/IFD	1516 9TH. ST., SAC TO 95814
Roger Ellis	DFG Reg 4 Hatcheries	12348 Shaw, Fresno 93710
MIKE HAYNIE	DFG Reg 5 Hatcheries	401 WILKINS ST, Bishop 9351
Bob Com	DFG R-1 Hatcheries	601 LOCUST ST, REDDING 96001



1 DANIEL E. LUNGREN, Attorney General  
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3 WILLIAM D. CUNNINGHAM, State Bar No. 90932  
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5 Telephone: (916) 324-4913

6 Attorneys for State of California  
Department of Fish and Game

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
9 COUNTY OF LOS ANGELES

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11	TROUT UNLIMITED OF CALIFORNIA, )	No. BS016304
	a chartered state council of )	
12	Trout Unlimited, Inc., and )	ANSWER OF STATE OF
	TROUT UNLIMITED, INC., a non- )	CALIFORNIA DEPARTMENT OF
13	profit Michigan corporation, )	FISH AND GAME TO PETITION
	)	FOR PEREMPTORY WRIT OF
14	Plaintiffs/Petitioners, )	MANDATE
	)	
15	v. )	
	)	
16	STATE OF CALIFORNIA DEPARTMENT )	
	OF FISH AND GAME and DOES 1- )	
17	5, inclusive, )	
	)	
18	Defendants/Respondents. )	
	)	
19	)	

20

21 Defendant/Respondent STATE OF CALIFORNIA DEPARTMENT OF  
22 FISH AND GAME hereby answers the Petition for a Peremptory Writ  
23 of Mandate to Compel Preparation of an Environmental Impact  
24 Report pursuant to the California Environmental Quality Act and  
25 admits, denies, and affirmatively alleges as follows:

- 26 1. Admits the allegations contained in Paragraph 1.  
27 2. Admits the allegations contained in Paragraph 2.  
28 3. Admits the allegations contained in Paragraph 3.



1           4.   Lacks sufficient information or belief to answer  
2 this paragraph, and on such ground denies generally and  
3 specifically each and every allegation contained in Paragraph 4.

4           5.   Lacks sufficient information or belief to answer  
5 this paragraph, and on such ground denies generally and  
6 specifically each and every allegation contained in Paragraph 5.

7           6.   Admits any allegation contained in Paragraph 6.

8           7.   Admits any allegations in the first sentence of  
9 Paragraph 7. Except as admitted, denies generally and  
10 specifically each and every other allegation contained in  
11 Paragraph 7.

12           8.   Generally and specifically denies the allegations  
13 contained in Paragraph 8. Affirmatively alleges that the  
14 Department of Fish and Game operates thirteen trout production  
15 hatcheries in California. Further affirmatively alleges that it  
16 operates and maintains a fish planting base at Kernville and a  
17 fish planting and quarantine base near Napa. Further alleges  
18 that the thirteen hatcheries in California raise approximately  
19 twenty million trout for planting annually, of which  
20 approximately ten million are deemed "catchable" in size when  
21 planted.

22           9.   To the extent Paragraph 9 attempts to restate the  
23 provisions of the "TROUT" policy of the California Fish and Game  
24 Commission, said policy speaks for itself. To the extent  
25 Paragraph 9 contains any other allegations, denies generally and  
26 specifically each and every such allegation. Affirmatively  
27 alleges that Paragraph 9 does not contain the full language of  
28 the "TROUT" policy. Further allege that several other policies



1 of the Commission address hatchery operations and fish planting  
2 or stocking.

3 10. Generally and specifically denies each and every  
4 allegation contained in Paragraph 10.

5 11. Admits that the Department of Fish and Game  
6 routinely makes decisions about the operation and maintenance of  
7 its trout hatcheries and about the conduct of its trout planting  
8 or stocking program. Except as admitted, denies generally and  
9 specifically each and every other allegation contained in  
10 Paragraph 11.

11 12. Admits that, as necessary, but at least bi-  
12 annually, the Department of Fish and Game provides information  
13 and recommendations to the California Fish and Game Commission as  
14 part of the Commission's public process for adoption of  
15 sportfishing regulations. Except as admitted, denies generally  
16 and specifically each and every other allegation contained in  
17 Paragraph 12.

18 13. Generally and specifically denies each and every  
19 allegation contained in Paragraph 13.

20 14. Generally and specifically denies each and every  
21 allegation contained in Paragraph 14.

22 15. Generally and specifically denies each and every  
23 allegation contained in Paragraph 15.

24 AFFIRMATIVE DEFENSES

25 1. The Petition, and each or any cause of action  
26 therein, fails to allege facts sufficient to state a cause of  
27 action.

28 ///



1           2.    The Petition, and each or any cause therein, is  
2 uncertain.

3           3.    The Petition fails to allege any present case,  
4 cause or controversy and, as such, is not ripe for adjudication.

5           4.    Petitioners lack standing to bring this action.

6           5.    The Petition is barred by the statute of  
7 limitations provided in Public Resources Code section 21167.

8           6.    Petitioners have failed to comply with the  
9 provisions of Public Resources Code section 21167.4 and as such  
10 are barred from pursuing this action.

11           7.    The Petition, and each or any cause of action  
12 therein, fails to allege facts sufficient to constitute a cause  
13 of action for attorneys' fees.

14           8.    Because the Petition is couched in conclusionary  
15 terms, answering defendant cannot fully anticipate all  
16 affirmative defenses that may be applicable to the within action.  
17 Accordingly, the right to assert additional affirmative defenses,  
18 if and to the extent that such affirmative defenses are  
19 applicable, is hereby reserved.

20           WHEREFORE, defendant/respondent prays for relief as  
21 follows:

- 22           1.    The Petition be dismissed with prejudice;  
23           2.    The petitioners take nothing by this Petition;  
24           3.    Defendant/respondent recovers its costs; and

25    ///

26    ///

27    ///

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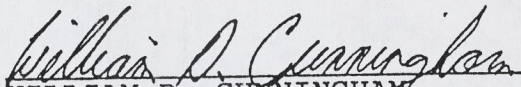


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4. For such other and further relief the court deems reasonable and proper.

DATED: Feb. 3, 1993

Respectfully submitted,  
DANIEL E. LUNGREN, Attorney General of California  
WALTER E. WUNDERLICH  
Assistant Attorney General

  
WILLIAM D. CUNNINGHAM  
Deputy Attorney General

Attorneys for Defendant/  
Respondent California  
Department of Fish and Game



DECLARATION OF SERVICE BY MAIL

Case Name: Trout Unlimited of California v. California  
Department of Fish and Game

No.: Los Angeles County Superior Court No. BS016304

I declare:

I am employed in the County of Sacramento, California, I am 18 years of age or older and not a party to the within entitled cause; my business address is 1515 K Street, Post Office Box 944255, Sacramento, California 94244-2550.

On February 3, 1993, I served the attached

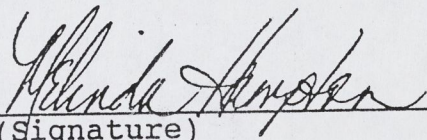
ANSWER OF STATE OF CALIFORNIA DEPARTMENT OF FISH  
AND GAME TO PETITION FOR PEREMPTORY WRIT OF MANDATE

in said cause, by placing a true copy thereof enclosed in a sealed envelope with postage thereon fully prepaid, in the United States mail at Sacramento, California, addressed as follows:

Barrett W. McInerney  
Attorney at Law  
5900 N. Sepulveda Blvd., Suite 415  
Van Nuys, CA 91411-9998

I declare under penalty of perjury the foregoing is true and correct, and that this declaration was executed at Sacramento, California on February 3, 1993.

Melinda Hampton  
(Typed Name)

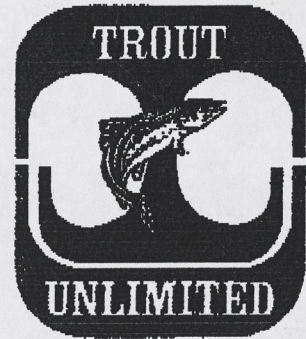
  
(Signature)



**FAX COVER SHEET**

Trout Unlimited  
1500 Wilson Boulevard  
Suite 310  
Arlington, VA 22209-2310

(703) 522-0200  
FAX: (703) 284-9400  
CompuServe:70534.3234  
America Online:TroutU  
Internet:TroutU@aol.com



DATE: 7/25

TO: Dr. Bob Behnke 970-491-5091

FROM: Aison Rull

# OF PAGES (Includes cover sheet): 6

COMMENTS: \_\_\_\_\_  
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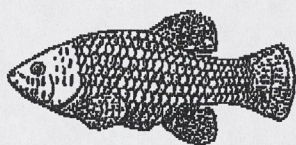
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*Trout Unlimited is America's Leading Coldwater Fisheries Conservation Organization*





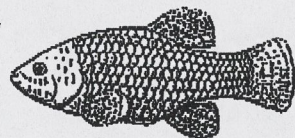



**DESERT FISHES COUNCIL**

POST OFFICE BOX 337

BISHOP, CALIFORNIA 93515

(619) 872-8751 (FAX and voice phone)



DATE: 8/2/95

TO: Bob Behrke

FAX NUMBER: (870) 491-5091

FROM: Phil Pister

SUBJECT: Hatchery Report

The use of Oncorhynchus for brown trout surely reveals the general level of incompetence involved here. Who prepared the report? Who is Dr. Dianne Long?

NOTE: Transmission consists of 1 page(s), including this cover sheet. Call sender at above number if you experience technical problems.

H! Just received your critique of subject. Great, as usual. A call just now to Bishop DFG biologists revealed that they were given just 3 days to review it.

Relative to your handwritten comments, I will meet very soon with my former staff for their ideas and will get back to you. It is their feeling that the report was prepared simply to support the status quo. They were not asked for their input into its preparation, probably by design. There has always been a justifiable dichotomy (especially in recent years @) between biologists + hatchery people. It just hurts bad to see such a huge percentage of our limited financial resources used in this manner, to serve a minority of anglers.

Phil



*Bob Schinke 070**2 pages*

State of California

**Memorandum**

To : Tim Farley, Chief IFD

*This is Darrell  
Wong's response.  
We will meet with  
our wild trout expert  
next week about his  
ideas. Phil*

Date : July 21, 1995

From : Department of Fish and Game - Bishop, Fisheries Management

Subject: Review of Draft Environmental Document on Culture and Stocking of Salmonids

I have reviewed the subject document under a very short deadline and have the following comments to offer:

1. On p. 8 the "project" is never really described here. The project description is scattered throughout the document making it impossible for the uninformed reader to understand the scope of hatchery operations. This information should be summarized in a concise project description.
2. On p. 13 no mention is made of the status of the threatened trout project in Alternative 2.
3. On p. 18 Piute sculpin and tui chub should be added to the native Lahontan faunal list.
4. On p. 19, 3.3.3 the word "River" should be eliminated from common names of native Owens drainage fish. Owens Speckled dace should be added to the list.
5. Although 2.6.3, p.11 mentions impacts to high mountain amphibians as an issue there is inadequate discussion in the document. In addition, the entire subject of potential stocking impacts to the biodiversity of high mountain waters is ignored. This subject is of paramount importance to some resource agencies and constituents and should be thoroughly evaluated.
6. On p. 103, 6.2.7 the increase of catchable trout stocking in high demand areas such as Inyo and Mono counties would further compromise wild biota without mitigation. Inyo-Mono also has a high potential for more WTP waters as well which would be compromised by implementing this alternative.

Overall the document concludes that trout stocking is detrimental to wild biota but offers no significant mitigation for continued stocking. In addition, the following is my "bottom line" interpretation of the document's description of the efficacy of each of the alternatives proposed:



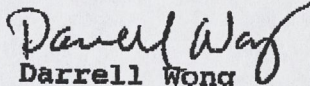
- Alternative 1- "bad for wild fish" with no mitigation.  
Alternative 2- "not feasible."  
Alternative 2a- "unrealistic."  
Alternative 3- "unrealistic."  
Alternative 3a- "unrealistic."  
Alternative 4- "feasible" with no mitigation for identified economic losses.  
Alternative 5- "bad for wild fish" with no mitigation.

It would seem that the identification of solid, effective and feasible alternatives which conform to the Department's mission would be prudent.

I offer that there may be effective alternatives which meet our mission, are financially feasible, and preserve both the hatchery program and wild/threatened programs. One such alternative could use Moyle's approach (lead page of Fisheries 19(2) article attached) which uses a bioregional landscape management strategy to protect aquatic biodiversity. An approach such as this could allow stocking in identified areas, but also provide mitigation by enhanced protection for aquatic resources using "wild trout" or other strategies in other areas using watersheds as practical units.

Inyo-Mono has embarked on this type of watershed management approach utilizing ecosystem-based management plans which incorporate balanced management strategies for protection of biodiversity in addition to other uses, while utilizing input from stakeholders.

As currently written, I find that the subject document fails to provide a rational, feasible, direction which will allow the Department to withstand the considerable criticisms it will receive from the full spectrum of stakeholders who will review the document.

  
Darrell Wong  
Associate Biologist

cc: A. Pickard, Bishop  
M. Haynie, Bishop  
D. Maxwell, L.R.



Is it reasonable to devote more than 30% of the budget to support less than 10% of angler use?

Nowhere in the document are such simple analyses made or the most basic questions necessary to address reform raised. The document implies in several places that supply (of catchable trout) and demand (angler days) are directly related. Obviously, this could not be true if catchable trout support less than 10% of the angler days. Also, compare figure 6b which shows catchable trout production remaining relatively constant between about 4 and 4.5 million pounds annually from 1980 through 1994, and figure 14 showing a decline in license sales during this same period from about 10% to 5% of the population of the state. This indicates that catchable trout are relatively unimportant as a determinant of license sales, as would be expected if they support less than 10% of angler days.

More significant, however, for economic analysis, is differential values of an angler day of a catchable fishery vs. a wild trout fishery. The economic analysis in the document is fundamentally flawed and incomplete. There are many studies on differential values attributed to wild trout fisheries. They all agree that wild trout fisheries generate more economic value in both actual expenditures and willingness to pay analyses. Enclosed is a page from a Montana Fish, Wildlife, and Parks report listing expenditures of resident and nonresident anglers (\$30 vs. \$156 per day). Note the Madison River, a trophy wild trout stream, attracts significantly more nonresident than resident anglers. Such large numbers of anglers would not travel such long distances to fish for catchable trout. Do Argentina, Chile, and New Zealand attract tourist anglers from many thousands of miles by touting their catchable trout stocking?

On p. 79 it is brought out that the major part of the values associated with an angler day concern "beauty and surroundings" and "... size and number of fish caught were least important." The aura, the romance of trout fishing as might be found in the literature such as *A River Runs Through It*, or Hemingway's *Big Two Hearted River*, cannot be reproduced with a catchable trout fishery. Thus, the \$40 per day economic value given in the document is a one size fits all fallacy similar to averaging the value of an automobile by adding the price of a Mercedes and a Geo Metro and dividing by two.

Evidently, the people preparing this document were unaware of California Fish and Game Bulletin 127 (California catchable trout fisheries by R.L. Butler and D.P. Borgeson, 1965). This and other studies found that more than 50% of all catchable trout that is caught is caught by less than 10% of all anglers fishing for them. That is, if less than 10% of all angler days are supported by catchable trout and less than 10% of the anglers fishing for catchables harvest more than 50% of the catch, it should be obvious then that an outrageous subsidy (at about \$5 per catchable harvested, and



Dr. Dianne N. Long  
Page 3

more than 30% of the total inland fisheries budget) is given to a very small minority of catchable trout specialists.

Controversy over catchable trout programs and their proper role in an agency's overall fisheries goals has been ongoing for many years. I will enclose some papers I have written on the subject. I was hopeful that, at last, the document on California hatcheries would make the critical analysis necessary for reform into the twenty first century, but it does nothing of the sort. It reads like it was prepared by a committee of CFG hatchery personnel.

You should be aware of a report to the Director, U.S. Fish and Wildlife Service, from the Fish and Wildlife Foundation, on future direction of federal hatcheries and the primary mission of hatcheries into the next century.

I hope a sincere effort will be made to redo the document as a critical analysis which can serve to move CFG and its hatcheries into the next century. This can be done if the right questions are addressed.



Please Review

MEMORANDUM

To: Dr. Dianne N. Long  
From: Robert J. Behnke  
Re: California Hatchery Document

In my opinion, this document is not ready for prime time. Much of it reads like a student term paper produced by a student unfamiliar with the subject matter and with a tight deadline to complete the work.

There are an abundance of errors and misinterpretations (brown trout genus is Salmo, not Oncorhynchus, there is no commercial fishery for Lahontan cutthroat trout, there is no controversy on the genetics of Eagle Lake rainbow trout, "systematics" <sup>is "systemics"</sup> should be systematics, etc., etc.) but such errors are unimportant to what this document should do. In my opinion, the document should provide the basis for changes and reform to better integrate the hatchery system into CFG goals and programs of the future.

I will essentially focus my remarks on the catchable trout program and its need for critical analysis. According to the document, the inland fisheries budget is \$48 million, of which hatcheries consume 40% (\$19 million), and catchable trout make up 97% by weight of the total hatchery production. Obviously, catchable trout production is the overwhelming dominant issue for any discussion on California hatcheries. According to the document, a production cost of \$3 per pound (two catchable trout per pound: \$1.50 per catchable) is given. Assuming that hatchery production of catchable trout could be increased from about 4.5 million pounds (1993-94, figure 6b) to 5 million pounds and 10 million fish at no additional costs (figure 7a indicates catchable trout were being produced at no cost by 1986), the basic question is: At a cost of about \$15 million (31% of total inland fisheries budget), how many angler days are supported by such an expenditure? At a 60% return rate, 10 million fish provides a catch of 6 million. The CFG angler day assumes 0.5 fish per hour or two fish per day (= 3 million angler days). On p. 80, it is stated that catchable trout fisheries average 3 fish per day (= 2 million angler days produced by a catch of 6 million catchables). The total annual angler days is given at 30 million. Thus, the production and stocking of 10 million catchable trout, which consumes more than 30% of the inland fisheries budget, produces only 10% (with catch of two per day) or 6.7% (with catch of three per day) of the total annual angler days -- which generally agree with the 8% figure cited in the document.

Is it reasonable to devote more than 30% of the budget to support less than 10% of angler use?



→ This, however, underestimates true costs. For example if 4-4.5 million pounds of catchables cost \$12 to \$13.5 million, then ~~\$5.5~~ \$7 million is spent on raising the other 3% of all hatchery fish (by weight) which would mean the all noncatchable hatchery fish cost well over \$100 per pound to produce.



Nowhere in the document are such simple analyses made or the most basic questions necessary to address reform raised. The document implies in several places that supply (of catchable trout) and demand (angler days) are directly related. Obviously, this could not be true if catchable trout support less than 10% of the angler days. Also, compare figure 6b which shows catchable trout production remaining relatively constant between about 4 and 4.5 million pounds annually from 1980 through 1994, and figure 14 showing a decline in license sales during this same period from about 10% to 5% of the population of the state. This indicates that catchable trout are relatively unimportant as a determinant of license sales, as would be expected if they support less than 10% of angler days.

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Does this  
title need  
caps, quotes,  
anything like  
that?  
no



Dr. Dianne N. Long  
Page 3

Controversy over catchable trout programs and their proper role in an agency's overall fisheries goals has been ongoing for many years. I will enclose some papers I have written on the subject. I was hopeful that, at last, the document on California hatcheries would make the critical analysis necessary for reform into the twenty first century, but it does nothing of the sort. It reads like it was prepared by a committee of CFG hatchery personnel.

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I hope a sincere effort will be made to redo the document as a critical analysis which can serve to move CFG and its hatcheries into the next century. This can be done if the right questions are addressed.



Re: agency reviews - improved efficiency more bang for buck - but includes trout stream (Hwy 66)

# W T R A C K I N G W I L D L I F E



Extra  
Extra  
Extra

FOR COLORADO DIVISION OF WILDLIFE EMPLOYEES  
Special Edition--Volume 1, No. 3 — July 24, 1995

## The "Big Team" meets; subteams begin next phase

By Bill Haggerty  
ITC Communications Team

"I'm positive about this deal," said senior terrestrial biologist John Ellenberger following Wednesday's meeting of the Implementation Team, "but I'm still apprehensive."

That pretty well sums up the feelings of many of the nearly 100 employees who traveled to the Hunter Ed. Building in Denver on July 19. The reason for the meeting was to establish and introduce implementation teams which will implement the DOW's new Management Review.

Many of the employee participants volunteered to work on this final portion of the reorganization plan. Many of them were drafted. Some of them accepted the assignment with the blessing of their immediate supervisor. Some of them did it over their supervisor's dead body.

All of them were and are ready to "get this thing over with." But it's going to take some time to figure out just what it is these teams are supposed to do.

The implementation is the third phase of the Division's Management Review, which was prompted by the completion of the Long Range Plan and its approval by the Wildlife Commission.

"When the Wildlife Commission approved the Long Range Plan, it was our mandate to do lots of things we aren't doing, and we're about \$20 million short to do everything in the plan. [The goal of the management review and reorganization is to] try to be efficient and effective with what we've got," said Bruce McCloskey, deputy director.

During the first stage of this reorganization process, the Employee Representative Team listed the millions of activities we now perform. The second team, the Vision Team, came up with a ton of things we need to do as we enter the next century. The third team, the Redesign Team, combined those two

and incorporated everything into the "Management Review—FINAL REPORT" dated June 5, 1995. This mis-sive was adopted by the Wildlife Commission, director of DNR, the Governor, the king, all his horses and all his men.

Now, a fourth and final team has been created to "implement" all those grandiose ideas outlined in the FINAL REPORT.

But what, exactly, does that mean? Well, we're trying to figure that out. Therefore, there is apprehension. There is worry. There is frustration. Nearly one of every six employees in the Division will work on this phase of the Management Review. That leaves a lot of empty holes back home. This will increase the work load and stress load of people left behind. (For example, what do you think was the favorite topic of conversation in each and every office in the Division on Friday, July 21, the day most team members returned to their duty stations?)

This implementation process will definitely increase the pile of work waiting for those who have been selected to participate on one of the sub-teams. And it will have an impact on those who aren't on a team, but have to squeeze in extra work covering for a missing co-worker. It increases the anxiety of our customers who may not be served in a timely manner.

Why are there more than 100 employees working on this phase of the project? It could have been done by 10 employees, sure. But, as Deputy Director Bruce McCloskey told the group gathered in the Hunter Ed. Building last Wednesday, "I've heard people ask how come we are tapping so many people for the implementation phase. Do we really need all these people to come up with a plan? The key here is involvement. We could lock 10 people up in a room for a couple of days and they'd come up with an imple-

mentation plan. How do you think we'd all swallow that?" (Here's a guess: we'd have shot those 10 people and buried them in the new pond behind the Hunter Ed. Building!)

How long will this process take? Gary Skiba, leader for the Organizational Structure sub-team, told the group it may take until January to develop the detailed framework of the new organizational structure.

Holy Cow, Batman! You mean, these 100-plus employees may be working on this full time until January?

Maybe some of these people, but not all of them. Those kinds of things are being worked out as you read this. We know we can't just forget about hunting season. We know there are still things that need to be done day-to-day.

And, January is just the anticipated date for the organization chart and reports from other committees to be in a presentable form. Matching people to jobs, and continuing to improve our services is expected to be an ongoing process. When asked "when will the reorganization be totally done?" consultant David King, of Deloitte & Touche, replied "There's one school of thought that says we'll never be done. Change never stops."

Who says this will be better than what we've got? That's a question Jim Olterman, terrestrial biologist from Montrose, asked two weeks ago when the Implementation Plan was being discussed prior to the Wildlife Commission meeting.

That's a legitimate question. Unfortunately, it cannot be answered until the process is completed ... but the bottom line is that society demands more from government for less money. That's a fact of life! We want to prepare for change. That's what our Long Range Plan called for. The Management

see BIG TEAM on page 2



from **BIG TEAM** on page 1

Review is a proactive approach to dealing with change that we foresee coming into the next century, and we'd rather prepare for it ourselves before someone does it TO us!

All of this still doesn't answer the hard questions? What will I be doing for a job next year? Where will my duty station be located? Who will I work for?

Those are the things each sub-team has been asked to figure out. We'll try to let every employee know what's going on, as it's going on. All these sub-teams

will be meeting throughout the state for the next few months. When they come to your town, or your end of the building, stop in and check it out. We'll be printing information about the Implementation process in every issue of Tracking Wildlife. We'll have Tracking Extra printed on weeks when Tracking Wildlife isn't published. We'll have weekly updates on the WildNet. In fact, new menu picks have already been added.

You can provide input by talking to your fellow employees who are on one of the sub-teams. You can submit input to

the team leaders. You can call Bud Smith in Fort Collins or me in Grand Junction. You can reach us by e-mail through WildNet.

Please keep the lines of communication open. We're all a bit touchy right now. Don't stonewall your own comments or feelings. It'll only get worse. Get it out in the open. No question will be disregarded, but at the same time, you may not like the answer you get. So, be ready for that, too!

Stay tuned! Good luck! Hang in there!

## Process Team Update

# Challenges discussed, team-building begins

By **Bill Haggerty**  
ICT Communications Team

Following is an update on what the Process Team did following last week's "Big Meeting".

According to the Management Review, the Process Team will deal with the following challenges:

—Redesign the game damage process: (Streamline the investigation and processing of game damage claims; reduce the cost of providing prevention materials for game damage; and explore long-term game damage prevention and handling alternatives);

—Review and redesign the contracting process;

—Improve existing administrative and recreational facilities maintenance;

—Consolidate the creation,

warehousing, ordering and distribution of publications.

None of these will be simple tasks. Following the "Big Meeting" on July 19, the Process Team met, went through some team-building exercises, received workplan training, then broke into four sub-teams, each dealing with one of the above challenges.

According to Kris Moser, Process Team Leader, "We tried to give the members of this team everything they would need right now, such as workplan training and team building exercises, so they could get to work on this stuff at their own duty stations around the state. Hopefully, this will alleviate having too many meetings. We know we'll have to

meet quite often, but each team has one member who will be responsible for workplan updates. Each team will have one member who is responsible to communicate what's going on within that sub-team every week."

Of course, this doesn't mean the Process Team won't be traveling across the state to gather input from other DOW employees. "You can bet we'll be on the road," Moser said. Schedules will be forthcoming.

The members of the Process Team also listened to a discussion led by former Design Team members, who outlined the recommendations on game damage, contracts, maintenance and publication distribution. "This gave the Process Team a little background. Now, they'll take that and run with it."



The Process Team: off and running

*Editor's note:*

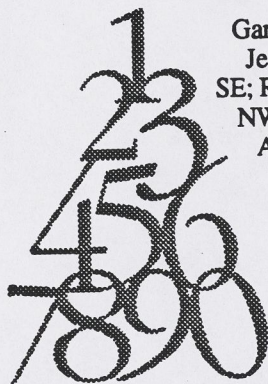
*Each of the Implementation Teams has been assigned a "reporter" from the Communications Subteam to follow the team and report back to all of us how things are progressing.*

*Look for regular updates in Tracking Wildlife and Tracking Extra., as well as on the WildNet Local Area Network bulletin board.*



# Implementation subteam members, leaders recapped

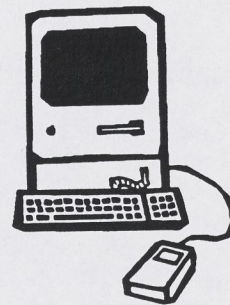
## ORGANIZATIONAL STRUCTURE TEAM



Gary Skiba (team leader)  
Jeff Madison, NW; Ron Velarde, SE; Rick Kahn, TER; Bob Caskey, NW; Francie Pusateri, NE; Jerry Apker, SW; Jim Sinley, HAB; Tom Powell, AQ; Walt Graul, NE; Kathi Green, CE; Ed Dumph, AQ; and Vicki Vargas-Madrid, DIR.

## TECHNOLOGY TEAM

Rob Molloy (team leader)  
Norb Drenski, A&T; Carol Edlin, A&T; Mark Cousins, NE; Janet George, CE; Sherman Hebein, SW; Tom Pojar, TER; Chuck Loeffler, SE; Chris Rushing, NW; Tim Massengale, A&T; Helen Bremer, SW; Judy Reeve, AQ; Cheryl Schulze, SE; Tammy Fox, CE; Larry Shuford, DNR.



## PROCESS TEAMS

Kris Moser (team leader)  
Game Damage—Harvey Donoho, SW; Mike Bauman, NW; Dale Coven, SW; Jim Young, SW; Tom Lytle, TER.

Maintenance—Ed Allen, AQ; Tom Kingsley, AQ; Ted Brown, NE; Phil Aragon, A&T.

Publications—Pat Trahey, PS; Lisa Evans, NE; Elgin Turner, A&T; Rita Green, A&T; Dave Seeber, PS.

Contracts—Trisha Barboza, A&T; Bernita Hadley, ENG; Linda Orton, HAB.

## THE HUMAN RESOURCES/AGENCY CULTURE IMPLEMENTATION TEAMS

Marilyn Salazar (team leader)

Because of the significant issues that need to be dealt with under each of the recommendations, there will be four implementation teams under Human Resources and Agency Culture.

The four teams and members are:

Agency Culture: Jim Bennett, NW; Rita Laitres, A&T; Ray Spencer, CE; Larry Rogstad, NE; Clyde Smith, ENG; Jenny Slater, SE.

Teams/Subject Matter Experts: Judy Holmes, A&T; Katie Kinney, NE; Steve Lucero, SE; Kirk Navo, SW; Diane Huling, DNR.

Employee Transition Assistance: Annette Marranzino, A&T; Pat Martinez, AQ; Gary Berlin, A&T.

Accountability: Dave Clippinger, SE; Kim Burgess, PERS.

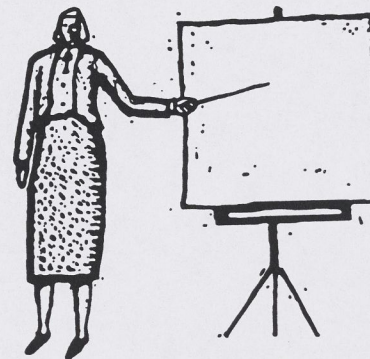


## CUSTOMER SERVICES TEAMS

Scott Hoover (team leader) Customer Service  
Research/Training—Steve Bissell, PS; Linda Sikorowski, DIR; Michelle Ellis, NW; Mike McLain, SW.; Dale Lashnits, PS.

Fiscal Transactions/Regulations—Eddie Kochman, AQ; John Ellenberger, NW; John Smeltzer, PS; Russ Bromby, PS; Dixie Simmons, SW.

Customer Service Improvements—Peg Cabiness, PS; John Torres, CE; June Gonzales-Usher, CE; Juanita Garcia, CE; Mike Grode, NW; Karen Rhoads, SW.



## PLANNING, BUDGETING AND EVALUATION TEAMS

Steve Cassin (team leader)  
Debbie Stafford, FIN;

Jim Goodyear, NE; Bob Leasure, PS; Bill Daley, FIN; John Hood, CE; Eric Hughes, AQ; Rich Larson, DIR; Doug Krieger, SE; Pete Naseth, DEN; Pat Miks, FIN.



## COMMUNICATIONS TEAM

Bill Haggerty, NW; Bud Smith, NE; (team leaders)  
Geoff Tischbein, SW; Eric Lundberg, SE; Pat O'Connor, CE; and Jeff Butler, PS, and Brigid Kelly, PS.



Mount. 1993  
Madison

Your Implementation Team members:

Steve Cassin (Planning and Budgeting)

(303) 291-7240

Scott Hoover, (Customer Service)

(303) 291-7227

Rob Molloy, (Technology)

(303) 291-7270

Kris Moser, (Process)

(303) 291-7316

Marilyn Salazar, (Human Resources/Agency Culture)

(303) 291-7376

Gary Skiba, (Organizational Structure);

(303) 291-7466

Team leader Bruce McCloskey

(303) 291-7207

David King of Deloitte & Touche

(303) 291-7255

Jim Lipscomb

(303) 291 7209

Communications sub-team:

Bill Haggerty  
and Bud Smith

(970) 248-7175 (Grand Junction)

(970) 484-2836 (Fort Collins)

Hotline number

(303)291-7554

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**TRACKING WILDLIFE - EXTRA**



Colorado Division of Wildlife  
6060 Broadway  
Denver, CO 80216



# Colorado State University

Department of Fishery and  
Wildlife Biology  
Fort Collins, Colorado 80523  
(970) 491-5020  
FAX (970) 491-5091

July 29, 1996

Mr. John Mumma  
Director  
Colorado Division of Wildlife  
5060 Broadway  
Denver CO 80216

Dear John:

Thank you for the copy of -- An Assessment of Fishery Management and Fish Production Alternatives----with the request that comments be sent to Jim Bennett. I will send a copy of this letter to Mr. Bennett, but my comments concerning alternatives and redirection in relation to the catchable trout program should be brought to your attention.

The assumption that recreational days of angling are directly related to the numbers of catchable trout stocked requires much more in-depth analysis and thought than is evident in the report. It is unstated, but probably also assumed that angler days are directly related to license sales. That is, a 30% or 40% reduction in numbers of catchable stocked (in state or by region) will translate into 30% or 40% less angling licenses sold.

Last sentence on bottom p. 17, to top of p.18, reads: ". . .we assume there is a direct and equal correlation between the number of fish stocked and the number of recreational days generated." Since only the number of catchable trout will be reduced in 1997, "fish stocked" means catchable trout.

There is abundant data to dispute this assumption, much of it in DOW studies. For example, Mary McAfee conducted Federal Aid Project 7-59, "Coldwater Lakes and Reservoirs" (I have a copy of the 1991 report). A few highlights from Mary's studies pertinent to any evaluation of DOW's catchable program are: Will anglers who fish in waters stocked with catchables continue to fish these waters if no catchables are stocked (only nonsalmonid fishes could be caught)? Anglers were interviewed in many "intensive use" waters of Denver, Grand Junction, Rifle, Craig, and Georgetown. From 88% to 97% of those anglers said they would continue to fish these waters (for nonsalmonid fishes) if catchable trout stocking ceased.

In regards to avoiding wasteful stocking and get the best mileage from catchable trout, her data from Rifle Gap Reservoir and Bear Lake are instructive. In 1984, 16,500 catchables were stocked in Rifle Gap and 58,000 angling hours (about 20,000 angler days) were "generated." In 1987, 61,500 catchable trout were stocked and 61,000 angler hours (ca.21,000 angler days) were "generated." In relation to the assumption of "a direct and



equal correlation between the number of fish stocked and recreational days generated," it can be seen that an increase of 45,000 catchable trout stocked, "generated" and additional 1,000 recreational days, with 45 additional catchable trout correlated to each additional recreational day, it is obvious such a "direct and equal correlation" assumption is wrong, and it can be very wasteful and costly.

In Bear Lake, 100 catchable trout per surface acre were stocked for four years and 400 per acre were stocked for three years. There was a "correlation" between angler days and numbers of catchables stocked, but it was not "direct and equal." An angler day was "generated" by 1.5 catchables with an annual stocking of 100 per acre. At a stocking rate of 400 per acre, seven catchable trout were necessary to "generate" an angler day.

Mary also compiled data pertinent to how hatchery trout stocked for "put and grow" fisheries can be more effective. She tested four "strains", two typical domesticated hatchery-selected strains of rainbow trout and two less domesticated strains, the Eagle Lake rainbow and Snake River cutthroat. Fingerlings of all four strains were stocked into Stillwater Lake and Bear Lake. Two years or more after stocking, survival of the less domesticated strains was 24:1 to 60:1 better than the domestic strains. When Mary requested increased production of Eagle Lake rainbows by DOW hatcheries, she was informed that there was no space; all facilities were geared to maximum production of catchable trout (which, in recent years has made up 90% to 94% of total hatchery production by weight).

I see no mention of Mary McAfee's work in the assessment report. Are the author's unaware of this DOW data which bears directly on "direct and equal correlation between fish stocked and recreational days generated"? I assume Mary still works at the Grand Junction office. Was her input requested for the assessment report?

Table 9 in the report provides supporting evidence to the effect that the "direct and equal correlation" assumption is false. About 20-25 years ago, perhaps 40% of all catchable trout were stocked in streams (vs. lakes and reservoirs). The report mentions this ratio declined to 19% by 1992 and to 5% in 1996. There has been a steady decline in numbers of catchable stocked in streams. Therefore, we should expect a steady decline in anglers fishing streams. Table 9, shows no such decline. Consistently, 33% - 36% of statewide angler use occurred in coldwater streams from 1982 to 1994. Increased license sales during this period means that the actual numbers of anglers fishing coldwater streams increased during this period of continuing decrease in numbers of catchable trout stocked. Table 9 also indicates why there is no "equal and direct correlation" between angler use and number of catchables stocked in coldwater streams. Two figures of 11% and 12% are given for anglers "desiring" catchable trout. Two figures are also given for anglers "desiring" wild trout, 18% in 1982, 70% in 1994--times and desires are changing.

Table 9 also has a column, a very misleading column, percent of people fishing "put-and-take" waters, which is 78% for 1994. This is readily explained by the change to stocking most catchables in lakes and reservoirs; therefore, anglers fishing for bass or walleye in most Colorado lakes and reservoirs are fishing in "put-and-take" waters.

I would also point out that in California, which leads the nation in numbers of catchable trout stocked (Colorado leads nation in number per licensed angler), the sales of fishing licenses declined from 10% to 5% of the state's population during the 1980's. During this period of decline, catchable trout production remained stable or increased. It was obviously not a determining factor governing license sales.



Pennsylvania has stocked about the same number of catchable trout as Colorado during the past 10 years. There is considerably greater fishing pressure directed toward trout in Pennsylvania than in Colorado although the state has only 790 miles of class A streams (support 27 pounds per acre of brook trout or 36 pounds per acre of brown trout) for wild trout fishing. Pennsylvania has only 23,000 surface acres of lakes and reservoirs suitable for salmonid fish stocking. That is, Colorado has about five times more stream miles and lake and reservoir area for wild trout or put-and-grow type fisheries (non put-take catchable fisheries). Yet angler satisfaction in Pennsylvania is high. Data available in: 1991 Trout Angler Survey, and Management of Trout Fisheries in Pennsylvania (1987), published by Penn. Fish Comm.

I assume the Penn. Fish Comm. sends their publications to DOW library. They are highly pertinent for a new and improved DOW assessment report.

When I read, on p. 16, of the assessment report that. . ." DOW biologists estimate that 85% of the recreational days (of "intensive" use category) depend on catchable trout stocking," I must ask who are these biologists? On what basis do they make this estimate? Are they familiar with the facts and figures I cite above from other states and from DOW data? It comes down to a matter of credibility. The assessments and assumptions regarding catchable trout in the assessment report are not credible.

Sincerely,

Robert J. Behnke  
Professor

RJB:dm

cc: Dr. James Bennett  
Colorado Division of Wildlife  
711 Independent Ave  
Grand Junction, CO 81505



## APPENDIX 4

### The Economic Impact of Fishing in Montana

#### Estimated Annual Economic Value of Montana Streams

RIVER	ANGLER DAYS			EXPENDITURES (\$)			NEV <sup>3</sup> VALUE	TOTAL USE VALUE
	Resident	Nonres.	Total	Resident <sup>1</sup>	Nonres. <sup>2</sup>	Total		
64% Madison	52,145	93,894	146,039	\$1,564,000	14,647,000	\$16,212,000	\$31,544,000	\$47,756,000
Beaverhead	10,241	10,495	20,736	\$307,000	1,637,000	\$1,944,000	\$2,675,000	\$4,619,000
Big Hole	42,006	21,241	63,247	\$1,260,000	3,314,000	\$4,574,000	\$9,171,000	\$13,745,000
Gallatin	44,936	26,193	71,129	\$1,348,000	4,086,000	\$5,434,000	\$14,510,000	\$19,945,000
Jefferson	14,230	2,635	16,865	\$427,000	411,000	\$838,000	***	
Upper Yellowstone	56,415	23,303	79,718	\$1,692,000	3,635,000	\$5,328,000	\$22,401,000	\$27,728,000
Region 3	272,376	200,127	472,503	8,171,280	31,219,812	39,391,092		
State	923,105	396,448	1,319,553	27,693,150	61,845,888	89,539,038		

Notes:

- (1) Based on resident expenditures of \$30.00/day (1993 dollars)
- (2) Based on non-resident expenditures of \$156.00/day (1993 dollars)
- (3) The net economic value of fishing in Montana, 1987 (\$67.25/day)

#### Estimated Annual Economic Value of All Fishing in Montana

WATERTYPE	ANGLER DAYS	EXPENDITURES	NET ECONOMIC VALUE
Cold Lakes	966,939	\$46,300,000	\$90,800,000
Warm Lakes	120,553	\$7,200,000	\$8,100,000
Coldwater Streams	923,105	\$89,500,000	\$180,000,000
Warmwater Streams	84,112	\$5,000,000	\$5,600,000
<b>Total Lakes and Rivers (State)</b>			
Cold Water	2,286,492	\$135,900,000	\$270,800,000
Warm Water	204,665	\$12,300,000	\$18,800,000
<b>Total - All Waters</b>	2,491,157	\$148,200,000	<b>\$289,600,000</b>

Source: Department of Fish, Wildlife and Parks



Date: Mon, 22 Feb 1999 16:08:44 -0800  
From: Brett Matzke <bmatzke@lightspeed.net>  
Organization: California Trout, Inc.  
X-Mailer: Mozilla 4.04 [en] (Win95; U)  
To: fwb@cnr.colostate.edu  
Subject: letter

Robert J. Behnke:

I just finished reading a letter you sent to James Hopelain of the California Dept. Fish and Game concerning their Strategic Plan. As the Public Lands Director For California Trout, we would sure like to publish this letter in our Stream Keeper to help us get California to give the Wild Trout Program and the New Heritage Trout Program decent funding. I too am tired of the arguments surrounding the Hatchery program. From our latest investigation the Hatchery Program and the Wild Trout Program manage approximately the same amount of water about 1,000 miles each, which leaves about 14,000 miles un-managed. We feel that for the biggest bang for the buck that more money should be channeled into Wild Trout and to also help fund the new un-funded Heritage Trout Waters Program.

As I can see from your letter you have recently published an article in "Trout", on this same topic. Could I have a copy of that article as well. I appreciate all the work you have done and continue to do for the fisheries all across this nation.

Sincerely,  
R. Brett Matzke  
Public Lands Director  
California Trout, Inc.  
PO Box 97  
Camp Nelson, CA 93208  
(559) 542-2523  
E-mail above if you can send electronically.



1.9 mil  
 5 mil  
 10 mil  
 3 mil  
 50 mil

Table 1. Comparison of Hatchery-to-Waters Cost for Catchables

Item	California (1)	Colorado (2)
	----- \$ per catchable pound -----	
Hatchery Personnel		0.89
Feed & supplies		0.45
Avg. Variable Costs	1.53	1.34
Admin. Overhead	0.47	0.19
Subtotal Avg. Total Costs	2.00	1.53
Other Support Services	0.20	0.44
Capital Replacement	0.50	1.48
Avg. Total Costs	2.70	3.45

1. 1993-94 cost estimates provided by DFG (Fleming, 3/13/95) were adjusted to 1988 dollars using GDP Implicit Deflator. Admin. Overhead applied at 23% of Subtotal ATC ( $\$1.27 / (1 - 0.23)$ ). Costs in italics represent estimates.

2. 1988 cost estimates based on information provided by the CO Dept. of Wildlife. Other Support Services and Cap. Replacement figures were estimated by Johnson, et al. using DOW data. "Other Support" includes research, mgmt., engineering, license collection, purchasing & warehousing, insurance, etc. "Cap. Repl." costs include an estimate of the depreciated value of assets associated with catchable trout production (e.g., hatcheries) and are treated as opportunity costs of public assets annuitized @ 8%.

It is difficult to make item-by-item comparisons between different studies of this nature, due to reporting differences between state agencies. Nevertheless, Table 1 provides a reasonable basis for consideration of other costs that are potentially attributable to managing and financing such a public agency, namely "Other Support Services" and "Capital Replacement" costs. Proper economic analysis requires that allocation and cost of capital assets be reflected in long-run decisions.

As footnote #2 in Table 1 indicates, "Other Support Services" was included to capture the proportionate costs of activities needed to support hatchery operations. Capital Replacement costs reflect the opportunity costs of public resources devoted to state hatcheries -- scarce financial resources that could have been utilized by the public in other ways. Both of these issues are appropriate to consider and include in estimating the true economic costs of producing and planting catchable trout. However, differences in reporting make direct application from the Colorado study to California problematic. For instance, the large difference in administrative overhead is more likely to reflect reporting differences than lower fixed costs in Colorado. The \$0.19 per pound for overhead in Colorado represents only 12.4% of the Subtotal ATC. a



**[353] Indiana Fishing: Results of a 1994 Statewide Angler Survey**

Stuart Shipman (Indiana Department of Natural Resources, 5570 N. Hatchery Rd., Columbia City, IN 46725; 219/691-3181; FAX 219/691-3494)

A 1994 Indiana resident angler survey led to greater understanding of where Hoosier anglers fished, what species they fished for, their attitudes toward regulations and management, and motivations for fishing. Data collected from the mail survey indicated Hoosier anglers most preferred and most often fished for largemouth and smallmouth bass, bluegill, crappie, catfish and walleye. They most often fished on ponds, small streams and northeast Indiana's natural lakes. Walleye, channel catfish and striped bass were the most important species for stocking. Anglers generally supported size and catch limits especially for predators, although they opposed closed seasons and limited access fisheries. The importance of free public access and control of speedboat operations were verified. Anglers made a strong association between pollution concerns, water quality, and fishing quality. Motives for fishing were segmented into four groups representing outdoor, social, general fishing, and specific fishing. The outdoor group exhibited the most important motives for fishing including enjoying nature, relaxation, and peace and solitude. The specific fishing motives of catching a trophy, catching a limit, and competition were the least important motives. Findings for this survey will be used to measure the effectiveness of our management and in the formulation of new strategic plan objectives during 1996.

**[354] Angler Benefit and License Pricing for New Mexico Sportfisheries**

Richard A. Cole\* (Department of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces, NM 88003; 505/646-1346; rcole@nmsu.edu)

Frank A. Ward (Department of Agricultural Economics and Business, New Mexico State University, Las Cruces, NM 88003; 505/646-1220; fward@nmsu.edu)

Lacking accurate estimates of economic benefit and more thorough understanding of factors determining management effectiveness, many states price licenses for warmwater and coldwater (typically a trout stamp) sportfishing based on mean management costs. We used a recently completed statewide model to assess resident angler benefits in New Mexico based on coldwater and warmwater fishing-

site attributes and travel-cost methods, then compared benefit to license fees. Angler-benefit foregone by site closure exceeds \$50 million per year statewide. Nearly 90% of the benefit is derived from large reservoirs (> 250 hectares), where benefit per captured fish was relatively high. Small reservoirs and streams are least cost-effectively managed, because of reliance on stocking catchable trout. Management of large coldwater sites, relying on salmonid fingerling stocking, is intermediately cost-effective. Large warm-water fisheries are the most cost-effectively managed. Revenues gained from large warmwater sites subsidize anglers who fish at small sites stocked with catchable trout, where benefits per management dollar are about 5% of the warmwater return. A user-pay policy would decrease license fees for warmwater fishing at large reservoirs and increase fees for trout fishing at small reservoirs and streams. Similar subsidy may exist wherever similar fishery conditions exist.

**[355] Steelhead Management in Minnesota: What Path Do We Take?**

Donald R. Schreiner\* (Lake Superior Fisheries, Minnesota Department of Natural Resources, 5351 North Shore Drive, Duluth, MN 55804; 218/723-4785; FAX 218/725-7738)

Thomas S. Jones (Lake Superior Fisheries, Minnesota Department of Natural Resources, 5351 North Shore Drive, Duluth, MN 55804; 218/723-4785; FAX 218/725-7738)

Steelhead abundance in the Minnesota waters of Lake Superior has declined sharply since the 1960s. In response, the Minnesota Department of Natural Resources is attempting to reverse the steelhead decline, with minimal hatchery influence. However, many anglers feel the only chance to reestablish a viable steelhead fishery is through intensive smolt stocking. This conflict prompted us to examine the biological, economic and social aspects of stocking steelhead. Rainbow trout recently stocked include fry and smolts of Lake Superior strain steelhead, and domesticated Kamloops smolts. Studies of genetic variability of wild steelhead in Minnesota indicate that discrete stocks still exist, and stocking could reduce the fitness of wild steelhead. Assessment information suggests that the return rate to the French River Trap of smolts generated from fry stocking was 8%, while return rates for hatchery-reared smolts were 0.6% for steelhead and 1.1% for Kamloops. Cost per adult returning to the French River trap was \$60.00 for fry-stocked steelhead, \$390.00 for hatchery-reared steelhead, and \$90.00

Contributed Paper Sessions



my comments on Ellen Wohl's book

This work is impressive and highly informative - - thoroughly documented and well-illustrated. I am sure it will receive excellent reviews. A potential criticism is that an environmentally correct, ecocentric viewpoint is strictly adhered to. That is, all changes in watersheds induced by humans are treated as negative examples. Most of the public, including nature lovers, view some changes as positive. For example, it is mentioned that the changes in the annual flow regime of South Platte caused loss of crane habitat. These changes also created a vegetated riparian corridor, replacing a barren flood plain, greatly enhancing plant and animal diversity. This corridor provided a habitat connection between the western plains of Kansas and Nebraska and the Colorado Front Range. Eastern species such as white tail deer, eastern blue jay, and eastern oriole, now commonly occur along the Front Range. Hybridization between eastern and western species of jays and orioles have been reported (Fritz Knopf and Ron Ryder are authoritative sources of information).

Along the flood plains, gravel excavations have formed numerous ponds inhabited by an abundance of carp. This artificial habitat with a nonnative fish provides a major source of food for fish-eating birds such as herons, pelicans, commorants and eagles. This enhanced diversity and abundance of birds is generally regarded as a positive benefit of flood plain alteration. Also, the most famous, "superstar" trout fisheries occur in tailwaters of regulated rivers where unnatural flow and temperature regimes create conditions for nonnative species of trout to attain biomasses of more than 500 kg/ha, or about 10 times that of a typical population in natural waters (South Platte in Cheeseman Canyon is an example).

In discussion of great natural variation in aquatic ecosystems, it could be mentioned that this is reflected in the contemporary paradigm of "dynamic equilibrium" in ecology. Compared to outdated theories on equilibrium, stability, balance of nature, etc. This lack of consistent patterns of regularity is why we can't accurately predict the consequences of such events as changes in flow.

Fig. 1.1 shows a branch of the North Fork Poudre R. extending into Wyoming. There is a tributary, Dale Creek, that extends into Wyoming, but it is situated more to the east.

Bottom p.18, top p.19, "cutthroat trout" needs to be identified as greenback cutthroat. There are 14 subspecies of cutthroat trout.

Page 21 was missing from my copy of MS.

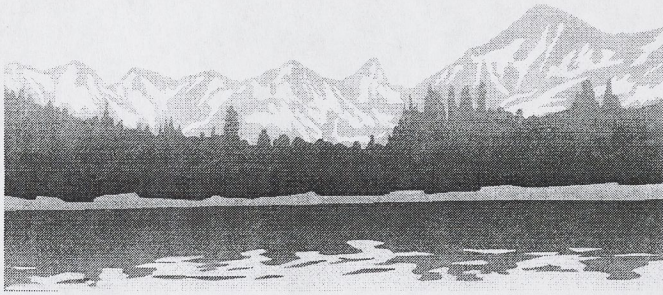
Page 91 discusses bioaccumulation of toxins whose concentrations increase up the food chain. This would be called "biomagnification". Most potential toxins are not "magnified" moving up the food chain, but some are. A distinction between accumulation and magnification should be made.

Table 4.1 Laramie - Poudre tunnel delivers water to Chambers Lake. Actually, the tunnel delivers water to Poudre R. below Chambers Lake.

Page 127 re. nonnative "fish" in Poudre R. This should be nonnative trout (all other species of suckers and minnows, except carp, are native fish);

Citation 206, Stuben should be Stuber.





# Colorado State University

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Fort Collins, Colorado 80523-1474  
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<http://www.cnr.colostate.edu/FWB/>

e-mail: \_\_\_\_\_@\_\_\_\_\_.colostate.edu

## FAX TRANSMITTAL

DATE: Nov. 15

TIME: 4:45

TO: Brian Schmidt

FAX: (415) 552-5816 PHONE: \_\_\_\_\_

FROM: R. Behnke

MESSAGE: 1992 T.U. petition 2nd  
1993 response.

NUMBER OF PAGES INCLUDING COVER SHEET: \_\_\_\_\_



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OF COUNSEL

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ATTORNEY-CLIENT COMMUNICATION

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Date:

Number of Pages: 4  
(including cover sheet)

Original to Follow:

Client:

Sent By: \_\_\_\_\_

Time: \_\_\_\_\_

TELECOPY TO:

Bob Behnke

FAX NUMBER:

(970) 491-5091

FROM:

Brian Schmidt

MESSAGE/ATTACHMENT(S): Attached is the list I mentioned over the phone. I will call you in two hours to discuss it. Thanks very much for the help!

If there are any problems with this transmission, please call (415) 552-7272, Reception Desk.

(415) 552-7272



Native Trout Eric Gerstung 5951 13th St  
Coonr. TxE  
Sac. 95822  
(916) 654-6851 home phone  
(916) 335-7125 FAX

- ① Any current stocking of hatchery fish - Thresten - impact - native rep. <sup>actually, potential</sup>
- ② Any recommended mgt. actions not taken - no funds, insurance.

Cynthia message  
P201  
Cynthia's house

**PRIVILEGED AND CONFIDENTIAL**  
**ATTORNEY-CLIENT PRIVILEGE**  
(510) 526-3543  
114 -> 230

MEMORANDUM

TO: File

FROM: Brian S.

DATE: November 15, 2000

RE: Trout Stocking Impacts

EX. Private  
1949 Sitover King  
Lahontz  
Kern - Little Kern  
golden  
Call Disinger to Pac. Ocean  
on cutt (costs) Eel R. NAT  
- hatch, domestic, RB  
stocked over native RB  
Lahontz  
- Ind. h. (?)  
call Eric Gerstung

Impacts of Stocking

On wild trout:

Bryan Schmidt  
JAX (715) 552-5816

I. Genetic Impacts.

A. Extinction through hybridization.

B. Damage to wild trout through interbreeding and resultant loss of genetic diversity.

- 1. hybrid vigor v. outbreeding depression - depression dominant. <sup>life histories</sup> <sup>discard control cutt. RB</sup> <sup>inter sp.</sup>
- 2. increased vulnerability to environmental change.
- 3. " " to catastrophic disease. <sup>steelhead (nonnative)</sup>

II. Competition Impacts.

A. Stocked fish consume food otherwise available to wild trout.

B. Stocked fish occupy available habitat, displacing wild trout. - <sup>size</sup>

- 1. Stocked fish disrupt established hierarchies for use of feeding and cover <sup>catchables 10-12"</sup> <sup>larger</sup> <sup>than most wild trout</sup>



File -  
November 15, 2000  
Page 2

habitats.

III. Predation and aggression impacts.

A. Stocked fish will eat smaller wild fish and fry, reducing wild populations.

- 1. Severe effects localized at stocking sites.

B. Stocked fish act overly aggressively, causing impacts.

1. Newly-stocked fish move about excessively, coming into conflict and attacking wild trout.

2. Fighting, wandering, and displacement (injures? my idea) and wastes energy otherwise available for reproduction.

IV. Disease impacts.

A. Hatcheries have high levels of disease.

B. Fish stocking transmits disease to wild trout.

- 1. Bacterial kidney disease. — prob. native endemic in trout used
- 2. Whirling disease. — EA - but no neg.
- 3. hematopoietic necrosis. — IPP

C. Hatchery fish are more resistant to the diseases found in hatcheries, giving hatchery fish an artificial edge over wild trout when the diseases spread to the wild.

Other Impacts

I. Hatchery operational impacts

- A. Downstream water pollution. — enrich - pollut
- B. Other localized habitat degradation.

II. Impacts from fisherman attracted by fish-stocking. — pressure

- A. Habitat degradation.
- B. Increased fire risk.
- C. Increased demand for emergency services, necessitating construction of new facilities.

D. Illegal fishing and hunting.

- litter

my Monaghan  
Madison Co.  
Bochman  
Spruce Cat.  
opposite, but  
2-3 days  
frustrated  
abandon

Jenkins  
Convict Cat  
hatch RB/BNT

most diseases  
bacteria, fungus  
spread in wild  
"Ich" - only  
apparent in  
crowded, stressed

pressure  
increased catch of  
native trout  
wild



File  
November 15, 2000  
Page 3

1. Failure to release wild trout or threatened trout when required by regulations. *- would not stock*

E. Increased erosion on roads and trails leading to fishing sites.

III. Impacts on endangered, threatened, and sensitive amphibian species. *\**

A. Fish harm migration and recolonization attempts by amphibian's of historic habitat where their current populations are low or non-existent.

B. Fish harm amphibian populations in shared habitat areas.

*Sierra Nat  
- rept, reprod?  
brook Tr  
- golden?*

IV. Impacts on lower food-chain organisms where fish were not historically present.

A. Impacts on invertebrates.

B. Impacts on phytoplankton/algae.

*Frag -  
- NPS water  
- Wilderness  
National policy*

**Unclear Regarding Impacts - Need Additional Information.**

I. Endangered/threatened salmon and steelhead.

II. Endangered/threatened coastal cutthroat trout.

III. Golden trout.

IV. Lahontan and Paiute cutthroat trout.

[PATROUTMAT1\BAS005.WPD]

*Liability  
Credibility*  
*to mandate - failure by default -  
Neglect - do nothing  
why - Tdm Farley - Herb Joseph  
- 60 mil. \$ habitat program  
- no monitoring - can't afford  
- Experimental hatch.*