F1-060

# A PROPOSAL FOR FUNDING FOR CONSTRUCTION OF A WINTER-RUN CHINOOK SUPPLEMENTATION FACILITY ON THE MAINSTEM SACRAMENTO RIVER

SUBMITTED IN RESPONSE TO THE 1997 CALFED CATEGORY III RFP



APPLICANT:
John T. Nelson
U.S. Fish and Service
Coleman National Fish Hatchery

PREPARED BY:
Daniel L. Free
U.S. Fish and Wildlife Service
Coleman National Fish Hatchery

## SECTION I. EXECUTIVE SUMMARY

a. *Project Title and Applicant Name*:
Construction of a Winter-Run Chinook Supplementation Facility on the Mainstem Sacramento River
J. Thomas Nelson / U.S. Fish and Wildlife Service / Coleman National Fish Hatchery.

b. *Project Description and Primary Biological / Ecological Objectives*:
The purpose of this project is to relocate the U.S. Fish and Wildlife Service's (Service) winter-run chinook salmon propagation program to the mainstem Sacramento River. This relocation is needed because strategies to promote imprinting and subsequent homing of winter-run chinook to the mainstem Sacramento River have failed. This project is *not* an expansion of Coleman National Fish Hatchery (NFH). This project is designed to carry-out "Recommended Actions" for Goal IV of "Recommended Actions for the Recovery of the Sacramento River Winter-run Chinook Salmon" prepared by the Sacramento River Winter-Run Chinook Salmon Recovery Team. This project will entail the construction of a new winter-run chinook rearing facility at a site in Shasta County, below Shasta Dam on U.S. Bureau of Reclamation property. The primary biological objective of this project is to ensure imprinting of hatchery-origin winter-run chinook juveniles on the mainstem Sacramento River. The goal of the propagation program is to conserve genetics and enhance the recovery of winter-run chinook through supplementation of the natural spawning population when adult hatchery-origin winter-run chinook return, commingle, and spawn naturally with their wild cohorts. Supplementation and genetic conservation strategies are specifically designed to augment natural reproduction and prevent the extinction of winter-run chinook without producing adverse genetic consequences often attributable to artificial propagation. The propagation program will be conducted in a manner consistent with all conditions and requirements outlined in current and future Federal Endangered Species Act Section 10 propagation permits issued by the National Marine Fisheries Service. Additionally, the program will adhere to any and all conditions outlined in any California Endangered Species Act Memorandum of Understanding for the propagation program entered by the Service with the California Department of Fish and Game (CDFG).

c. *Approach / Tasks / Schedule*:
Design of the facility is currently ongoing. The proponent is prepared to begin construction of the facility on the basis of a letter of intent for funding from Category III. Because of the critical need to have a facility operational by the end of January 1998, construction of the facility will be fast-tracked.

d. *Budget Costs and Third Party Impacts*:
Design costs are provided by the proponent as in-kind services. Construction costs are estimated at $495,330.00. Negative third party impacts are not anticipated. Benefits to third parties include all benefits that may result from the recovery of winter-run chinook populations including reductions in restrictions on water deliveries and fishing.

e. *Applicant Qualifications*:
J. Thomas Nelson is currently serving as Hatchery Manager for the Service's Coleman NFH in Anderson, Ca.. Mr. Nelson has been an employee of the U.S. Fish and Wildlife Service for over thirty-one years of which the last eighteen years have been spent working with Atlantic salmon and Pacific salmonids.

Since 1989, the Service has developed and implemented methods for the successful propagation of winter-run chinook.

f. *Monitoring and Data Evaluation*:
The Service is currently required to monitor and evaluate the winter-run chinook propagation program in order to meet the requirements of their Section 10 Permit (#1,027) of the Endangered Species Act issued by National Marine Fisheries Service (NMFS) in January 1997. This effort is coordinated and reviewed by NMFS and CDFG.

g. *Local Support / Coordination with other Programs / Compatibility with CALFED objectives:*

Local Support-- The Coleman NFH winter-run chinook propagation program was initiated in 1989 as part of plan developed and supported by a task group comprised of representatives from U.S. Bureau of Reclamation (USBR), (CDFG), the Service, and NMFS. This program continued until 1996 when a self-imposed moratorium was placed into effect until a suitable site could be developed on the mainstem Sacramento River.

Coordination with other Programs-- In 1991, the Winter-run Chinook Captive Breeding Committee was formed and consists of representatives from the Service, NMFS, USBR, CDFG, Department of Water Resources, commercial and sportfishing groups, University of California, and Steinhart Aquarium. The committee proposed a subsample of fish from the Coleman NFH propagation program be placed into a "Captive Brood Stock Program" to further protect the winter-run chinook population from catastrophic loss of a year class. The Captive Brood Stock Program is interlinked and dependent on the winter-run chinook propagation program.

The winter-run chinook propagation program has been identified as an important component of the restoration efforts identified by the Sacramento River Winter-Run Chinook Recovery Team. This project will be closely monitored and coordinated with all ongoing and proposed restoration / recovery activities.

Compatibility with CALFED Objectives-- This project is compatible with non-ecosystem CALFED objectives, primarily the "water supply reliability" objective. Recovery of winter-run chinook populations will be accelerated by the supplementation program which will ease restrictions on water deliveries out of the Sacramento River and Sacramento Delta and, subsequently, reduce the conflicts between fisheries and water management.

**SECTION II. TITLE PAGE**

a. *Title of Project*:

Construction of a Winter-Run Chinook Supplementation Facility on the Mainstem Sacramento River

b. *Applicant*:

U.S. Fish and Wildlife Service
Representative: J. Thomas Nelson
Coleman National Fish Hatchery
24411 Coleman Fish Hatchery Road
Anderson, Ca. 96007
Phone: (916)-365-8622
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c. *Organization*:

U.S. Department of the Interior
U.S. Fish and Wildlife Service

d. *Tax Identification Number*:

NA

e. *Technical and Financial Contact Person*:

Daniel Free
U.S. Fish and Wildlife Service
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f. *Participants and Collaborators*:

The U.S. Fish and Wildlife Service is the participant in this project. CDFG, USBR and NMFS have participated in parts of the review and feasibility analysis for establishment of a mainstem Sacramento River supplementation facility. USBR has agreed to provide in-kind services for some elements of this project.

g. *Project Group Type*:

Construction

## SECTION III. PROJECT DESCRIPTION

a. *Project Description and Approach*
The purpose of this project is to relocate the U.S. Fish and Wildlife Service's (Service)winter-run chinook salmon propagation program to the mainstem Sacramento River. This project is *not* an expansion of Coleman NFH. This project is designed to carry-out "Recommended Actions" for Goal IV of "Recommended Actions for the Recovery of the Sacramento River Winter-run Chinook Salmon" prepared by the Sacramento River Winter-Run Chinook Salmon Recovery Team. This project will entail the construction of a new winter-run chinook rearing facility at a site in Shasta County, below Shasta Dam on U.S. Bureau of Reclamation property.

Evaluation of sites for a mainstem Sacramento River winter-run chinook supplementation facility concentrated on three suitable sites. Further evaluation of these three sites revealed that development of a supplementation facility at a site below Shasta Dam would be the preferred alternative based on cost, biological factors, and feasibility. Development of this facility will require the construction of an entirely new incubation / rearing facility about 0.5 miles below Shasta Dam. The site is owned by USBR and is presently used for storage. The site is relatively flat and comprises approximately 60,000ft²

• Water Supply- The water supply for the proposed rearing facility will be Sacramento River water pumped from the Shasta Dam tailrace. The water intake structure will consist of two metal pipes anchored to the middle piling of the vehicle bridge spanning the tailrace. Each pipe will extend to a depth that exceeds the low flow mark. One 3,000 GPM pump will be submerged into each pipe. Each system will have the capacity to supply the needs of the rearing facility independently which is needed in event of pump failure. A metal pipe will transport water from each of the two intakes to a packed-column unit for degassing. After exiting the packed column, the water will enter a manifold for delivery to individual rearing units .

• Hatchery Building- The hatchery building for the proposed rearing facility will be a 1800ft², insulated, steel building. This building will house a small office, egg and fry incubation units, forty thirty-inch diameter circular tanks for early rearing, a 100ft² walk-in feed storage freezer, storage space, and all appurtenant electrical wiring and plumbing.

• Water Treatment- No water treatment / sterilization by ozonation will be required at the Shasta Dam site. Although fish are abundant in Shasta Lake, consultation with a Service pathologist (J.S. Foott-PhD, California-Nevada Fish Health Center, pers.comm.) revealed that little threat from pathogens is evident. Chinook salmon are routinely stocked into Shasta Lake, but these fish must be quarantined and certified disease-free prior to their release.

• Rearing units- Twenty thirty-inch circular tanks will be moved from Coleman NFH and an additional twenty will be purchased. All other rearing containers will be purchased new and require new plumbing and site preparation. The rearing units will be similiar to those used

successfully at Coleman NFH and will be ideally suited for integration of quasi-natural rearing strategies.

• Vehicle / Equipment- This includes all equipment required for the construction and operation of the supplementation facility.

Because of the critical need to have a facility operational by the end of January 1998, this construction project will be fast-tracked. The USBR will assist by providing lay-out and design services and by assisting in the construction of the water supply. Cost estimates have taken into account short turn-around times for construction of the hatchery building and tank set-up. The proponent is prepared to commence work on the basis of a letter of intent for funding from Category III.

b. *Location*
The location for the project is in Shasta County on the mainstem Sacramento River, approximately 0.5 miles below Shasta Dam on USBR property.

c. *Expected Benefits*
Stressors-- A number of *stressors* identified in "Summary of Technical Team Reports / Stressors and Example Restoration Actions" will be addressed by this project. These are: **Alterations of Flows and Other effects of Water Management**; **Adverse Fish and Wildlife Impacts**; **Population Management** and; **Artificial Propagation**. Restoration actions that address these factors will be facilitated by construction and operation of this project. Recovery of the winter-run chinook population is the main focus of this project. One of the most significant aspects of this project is that it will facilitate the modeling of the effectiveness of different restoration actions which may include screening, flow manipulations, harvest management, population monitoring, supplementation, and genetic investigations. This is accomplished through: marking of hatchery-origin winter-run chinook; ardent monitoring and evaluation of hatchery-origin and natural populations during juvenile outmigration, ocean residence, and adult spawning and; intensive genetic monitoring and research activities.

Primary Benefits--The primary benefits of the project are it: solves the existing imprinting problem; increases the effective genetic population size of the winter-run chinook population; increases ability to manage for endangered species; reduces extinction risk; enables genetic research and management and; may serve as a model for other supplementation efforts. Evidence for the probable success of this project includes the 1995 return of an estimated eighty-eight hatchery-origin winter-run chinook resulting from a total of twenty-nine wild adults that were utilized for the Coleman NFH propagation program. This represents a greater than three-fold replacement rate which far exceeds the replacement rate (estimated at less-than 1) of the natural spawning population. Also, marking of hatchery-origin winter-run chinook has lead to increased knowledge regarding movements of fish through the Sacramento River, Sacramento River Delta, and the ocean. This knowledge has lead to implementation of restoration actions that will assist in the recovery of this endangered species.

Secondary Benefits-- A variety of human factors are presently constrained by winter-run chinook "take" restrictions imposed under the Endangered Species Act including operation of the Central Valley Project, diversion of water from the mainstem Sacramento River, commercial and recreational harvest of chinook salmon, and operation of the State Water Project. These restrictions are dependent in part on the number of adult winter-run chinook escaping to natural spawning grounds on the mainstem Sacramento River. Direct experience to date indicates construction and operation of this project will increase the number of adult spawners on natural spawning grounds, resulting in an easing of constraints on these human activities. Thus, construction and operation of this project will simultaneously benefit water supply reliability and recreational / commercial fisheries, which will tend toward resolving the conflict between fisheries and water management, as well as serving an important winter-run chinook recovery function.

d. *Background and Biological / Technical Justification*

The State of California Fish and Game Commission listed the winter-run chinook salmon (*Oncorhynchus tshawytscha*) as a State endangered species in May 1989 (Ca. Code of Regs., Title XIV, Section 670.5). NMFS followed with an emergency federal listing in August 1989 (54 Federal Register {FR} 32086), with formal listing as threatened in November 1990 (55 FR 46515). Despite this listing, numbers of winter-run chinook continued to decline and the Federal listing status was changed to endangered in February 1994.

Efforts designed to benefit winter-run chinook were outlined in a 1988 *Ten-Point Plan to Benefit Sacramento River Winter-run Chinook Salmon* developed by a task group comprised of NMFS, U.S. Bureau of Reclamation (USBR), U.S. Fish and Wildlife Service (Service), and California Department of Fish and Game (CDFG). These measures included the 1989 development of a winter-run chinook propagation program at the Service's Coleman National Fish Hatchery (NFH) on Battle Creek, a tributary to the Sacramento River. The propagation program has been identified as a "Recommended Action" for Goal IV of "Recommended Actions for the Recovery of the Sacramento River Winter-run Chinook Salmon" prepared by the Sacramento River Winter-Run Chinook Salmon Recovery Team. This program is a *supplementation* program and entails the trapping of wild adult winter-run chinook, spawning these adults in an artificial environment, and rearing the progeny for release back into the natural environment. The objective of this program is to increase the survival of eggs and juveniles as compared to their natural spawning cohorts. Supplementation of the natural spawning population will be achieved when artificially propagated adults commingle and successfully spawn with their wild cohorts on natural spawning grounds. Supplementation and genetic conservation activities are specifically designed to augment natural production and prevent the extinction of populations without producing adverse genetic consequences and are undertaken as special interim measures to conserve and enhance recovery of an endangered species. The propagation program will be conducted in a manner consistent with all conditions and requirements outlined in current and future Federal Endangered Species Act Section 10 propagation permits issued by the NMFS. Additionally, the program will adhere to any and all conditions outlined in any California Endangered Species Act Memorandum of Understanding for the propagation program entered by the Service with CDFG.

In addition to the hatchery propagation program, a perilously low return of adult winter-run chinook in 1991 (191) prompted the formation of the Winter-Run Chinook Captive Breeding Committee. This ad-hoc committee consists of representatives from the Service, NMFS, USBR, CDFG, Department of Water Resources, commercial and sport fishing groups, University of California, and Steinhart Aquarium. The committee proposed a subsample of fish from the Coleman NFH propagation program be placed into a "Captive Brood Stock Program" to further protect the population from catastrophic loss of a year class. The goals of the program were to provide:

1) An "insurance policy" against extinction and loss of genetic material;
2) A source of gametes for the Coleman NFH propagation program;
3) A source to supplement naturally spawning cohorts;
4) "Time" until habitat conditions improve;
5) A gamete source for experimental and research purposes, and;
6) A potential tool to assist in the recovery of the species.

On 11 August 1994, President Clinton signed P.L. 103-292, the "Winter-run Chinook Salmon Captive Broodstock Act". The Act provided for the continuation of the transfer of a portion of each year's winter chinook salmon production to the Captive Brood Stock Program to protect against the run's extinction.

Both the winter-run chinook Captive Brood Stock Program and the hatchery propagation program are covered under Section 10 Permit #1,027 of the Endangered Species Act issued by NMFS in January 1997.

Unfortunately, juvenile winter-run chinook release strategies designed to promote homing to the natural winter-run chinook spawning grounds in the mainstem Sacramento River failed. Hatchery-origin winter chinook apparently imprinted on Battle Creek water and are returning there. As a result of this problem, a self-imposed moratorium on the capture of wild winter-run chinook was placed in effect in 1996. Also in 1996, a Service report was generated which presented a number of alternative strategies to deal with the imprinting problem. After release of this document, a series of meetings were held with agency representatives (USBR, Service, NMFS, CDFG) to determine the most feasible method for ensuring imprinting of hatchery-origin winter-run chinook to the mainstem Sacramento River. Following these meetings, it was mutually agreed upon that development of a mainstem winter-run chinook propagation facility was the most feasible method for overcoming the imprinting problem.

e. *Proposed Scope of Work*

The proposed scope of work for this project has three tasks: Feasibility, Analysis, Design, and Construction.

Feasibility (completed)-- The project is feasible. The site is Federal property, sufficient room is available, NEPA / CEQUA documentation for the propagation program is in place (finalized), actions are recommended by the Winter-Run Chinook Recovery Team and sister-agency cooperation is assured. No Category III funding is being sought for this task.

Design-- USBR has capability with existing staff, in coordination with the proponent, to provide in-kind services for layout / design for site development, including arrangements of elements within the available space, electrical, water-supply, and other project elements. Deliverables: design drawings and construction documents. No Category III funding is being sought for USBR in-kind services for this task.

Construction-- This task should commence as soon as possible prior to the end of January 1998. USBR has capability with existing staff to provide in-kind services for construction and construction management of certain necessary water supply, electrical, and other technical elements, in consultation and coordination with the Service. Category III funding is currently not being sought for in-kind services provided by USBR or the Service. Construction of the Hatchery Building, support pads for outdoor tanks, the air equilibration facility and other elements will be undertaken through approved subcontractors and / or local suppliers. The proponent is prepared to undertake preliminary site work upon receipt of a letter of intent from Category III to fund this project in order to assure meeting the target completion date. Category III funding is being sought for this task only.

f. *Monitoring and Data Evaluation*

The Service is currently required under an Endangered Species Act Section 10 Permit #1,027 issued by NMFS in January 1997 to intensively monitor and evaluate the winter-run chinook propagation program. Much of this work is done in conjunction with monitoring and evaluation of the wild winter-run chinook population. This effort includes monitoring adult and juvenile passage, adult spawning ground surveys, modeling of the effects of supplementation on the effective population size, disease, genetic identification, and fishery and water diversion impacts. This monitoring and evaluation effort is coordinated with, and reviewed by, CDFG and NMFS.

g. *Implementability*

USBR has the capability with existing staff to provide in-kind services for layout / design and construction and construction management for certain technical elements of the project, such as water supply and electrical elements. USBR has been approached and coordination has resulted in the project concept / approach being favorably received at the field and regional staff levels. Briefing of regional management is in progress and will be finalized during the Category III Proposal Review process. All propagation program documentation is in place, including a programmatic FONSI from NMFS for both the supplementation and Captive Broodstock Program. NEPA / CEQUA documentation for the relocation effort is being finalized. No in-water construction permit will be required. Regional CDFG coordination has resulted in project support in its present configuration. The project has broad support from water users, including both urban and Sacramento Valley agricultural interests. Coordination has resulted in strong support from Pacific Coast Federation of Fisherman's Association.

## SECTION IV. COSTS AND SCHEDULE TO IMPLEMENT PROPOSED PROJECT

a. *Budget Costs*
A cost breakdown of the associated project tasks is given in Table 1. A detailed cost estimate for various "line-item" elements of the mainstem Sacramento River winter-run chinook supplementation facility is given in Table 2. These cost estimates have been generated from information from actual vendors and local suppliers / contractors., and are represented as reliable. Certain variation in actual construction cost is to be expected, but the contingency (15%) should be adequate. It is important to understand that the proportion of costs directly attributable to the Captive Brood Stock Program do *not* reflect an incremental increase in cost over that which would be realized by development of a supplementation facility alone. Rather, these costs reflect the *use* to which each of the line items would be put. Omitting the Captive Brood Stock Program elements and capacity would result in cost savings of only about $60,000 (approximately 12%) since the water supply, buildings, electrical elements, equipment, etc., would all have to be in place for the more limited facility. This indicates substantial cost synergies involved in a facility which can accomplish both recommended actions of the Winter-Run Recovery Team simultaneously. No O&M funding is being sought from Category III.

The basis / need for CALFED (Category III) funding is reflected in the project benefits to winter-run chinook salmon and Stressors which will be addressed by this facility, as described above. These include direct resolution of an imprinting / straying problem, improved management for incidental ocean harvest "take" of an endangered species, reducing potential genetic changes due to hatchery management by eliminating certain potential artificial selection factors, enabling the continuation of an interim propagation program to provide smolts (and other life stages) for genetics and other research purposes, enabling a large marking program, and providing a "genetic reserve" as a hedge against catastrophic loss of one or more year classes of an endangered species.

Funding partnerships / committments include a substantial capability within USBR to provide in-kind layout / design and construction services for certain critical facility elements, such as the water supply and electrical systems. In-kind services will also be provided by the Service for overall project management and coordination.

b. *Schedule Milestones*
This project will be fast-tracked to meet a completion target of the end of January 1998. No other milestones are appropriate.

c. *Third Party Impacts*
Third parties, which will be influenced by the completion of this project include the Central Valley Project water contractors, State Water Project water contractors, commercial and recreational fishing interests, and parties interested in recovery of an endangered species. Although impossible to accurately quantify at this time, beyond the more than three-fold survival advantage already documented for propagated winter-run chinook over their naturally spawning cohorts, greater

numbers of adult winter-run chinook spawners on natural spawning grounds will translate into reductions in "take" restrictions throughout the range of this species. This translates into benefits for water users and for commercial and recreational fisheries interests. Reduction in risk of extinction, as determined by the Winter-Run Chinook Recovery Team, will benefit interests seeking accelerated recovery of an endangered species, without adverse genetic consequences attributed to more traditional hatchery programs.

**Table 1.** Project Cost Breakdown. All design costs will be in the form of in-kind services from USBR and the Service (USFWS). Some construction and construction management costs (e.g., water supply; electical) will be in the form of in-kind services from USBR. All Category III funding being sought will support Material and Aquisition (see Table 2).

| Project Task | Direct Labor, Salary, Benefits | Overhead, G&A | Service Contracts | M&A Contracts | Other Direct Costs | Total Cost |
|---|---|---|---|---|---|---|
| **Design** | In-kind USBR USFWS | In-kind USBR USFWS | In-kind USBR USFWS | In-kind USBR USFWS | N / A | In-kind USBR USFWS |
| **Construct** | In-kind USBR USFWS | In-kind USBR USFWS | In-kind USBR USFWS | $495,330 | N / A | $495,330 |

**Table 2.** Cost estimates for elements of the mainstem Sacramento River winter-run chinook supplementation facility.

| Item | Qty | Unit cost | Total cost | C.B.S. Cost* |
|---|---|---|---|---|
| Property acquisition | 1 | $ 0 | **$ 0** | $ 0 |
| Water Supply | | | | |
| Intake | 1 | 35,000 | **35,000** | 23,300 |
| Submersible pumps | 2 | 15,000 | **30,000** | 20,000 |
| Piping | all | - | **30,000** | 10,000 |
| Effluent, drain | all | - | **6,000** | 4,000 |
| Electrical | all | - | **20,000** | 13,300 |
| Alarm system | 1 | 5,000 | **5,000** | 2,500 |
| Hatchery Building (30 x 60 ft, insulated) | | | | |
| Concrete Pad (incl. rebar) | 2,300 $ft^2$ | 10 | **23,000** | 5,800 |
| hauling | 120 $yd^3$ | 62 | **8,000** | 2,000 |
| Steel building, incl. office partition, | 1,800 $ft^2$ | 25 | **40,000** | 10,000 |
| Office, wet lab (3 souls, min.) | 1 | 0 | **0** | 0 |
| Living Qtrs. (1 soul) | 1 | 40,000 | **40,000** | 26,700 |
| Circular tanks, fry (30 in dia.) | 20 | 300 | **6,000** | 1,500 |
| Circular tanks, juvenile grow-out (8 ft dia.) | 22 | 900 | **19,800** | 2,000 |
| Circular tanks, captive brood stock (12 ft dia.) | 20 | 2,500 | **50,000** | 50,000 |
| Gravel pad, outdoor circ. tanks | 240 $yd^3$ | 10 | **2,400** | 1,600 |
| hauling | 240 $yd^3$ | 4 | **960** | 640 |
| grader (in/out + work) | all | - | **400** | 270 |
| Walk-in freezer | 1 | -- | **15,000** | 11,300 |
| Vehicle/equipment | all | - | **30,000** | 20,000 |
| Site prep. / construction labor | all | - | **30,000** | 20,000 |
| Engineering / Contracting (10%) | all | - | **39,160** | 22,490 |
| Subtotal | | | **$ 430,720** | $ 247,400 |
| Contingency (15%) | | | **64,610** | 37,110 |
| **Total** | | | **$ 495,330** | $ 284,510 |

* "C.B.S. Costs" = Captive Broodstock Costs. These costs are attributable to the proportion of the line item which would be dedicated specifically to the Captive Broodstock Program, as distinguished from the mainstem supplementation rearing program. In many cases, the line item would be used to support the captive broodstock and the supplementation rearing activities simultaneously, generating substantial cost synergies.

## SECTION V. APPLICANT QUALIFICATIONS

The project manager will be John T. Nelson / Hatchery Manager / Coleman NFH / U.S. Fish and Wildlife Service. Mr. Nelson will oversee implementation of the project. His qualifications include:

*Education*:

- Bachelor of Science, Fisheries Management, Humboldt State University, Arcata, Ca. June 1965.

- U.S. Fish and Wildlife Service Inservice Training School for Hatchery Managers, Marion, Al. June 1970.

*Work Experience*:

- Thirty-one years with the U.S. Fish and Wildlife Service

- Currently Hatchery Manager / Coleman National Fish Hatchery / U.S. Fish and Wildlife Service.

- Thirteen years experience as Hatchery Manager / U.S. Fish and Wildlife Service / White River National Fish Hatchery, Bethel, VT. Worked on Atlantic Salmon restoration for the Connecticut River Valley, New England.

- Five Years experience as Staff Biologist at the Area Office in Concord, NH. dealing with Atlantic Salmon restoration issues in New England.

- Previous thirteen years served at four national fish hatcheries.

In addition, staff from two other Service offices (Northern Central Valley Fish and Wildlife Office and the California-Nevada Fish Health Center) as well as staff from Coleman NFH will assist in the project implementation. These participants are experienced in issues regarding winter-run chinook and their propagation, and many of them were involved in the design and implementation of the winter-run chinook supplementation and Captive Brood Stock Program since 1989.

## SECTION VI. COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

All terms and conditions applicable to Category III contracts funded with Proposition 204 funding are agreeable and will be complied with by the applicant. The appropriate forms identified in Table D-1 of the RFP (attached) will be executed and copies will be supplied to CALFED prior to signing of the Final Contract.

Item 3

Agreement No _____

Exhibit _____

STANDARD CLAUSES -
INTERAGENCY AGREEMENTS

**Audit Clause.** For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Category III

**Availability of Funds.** Work to be performed under this contract is subject to availability of funds.

**Interagency Payment Clause.** For services provided under this agreement, charges will be computed in accordance with State Administrative Manual Section 8752 and 8752.1.

**Termination Clause.** Either State agency may terminate this contract upon 30 days advance written notice. The State agency providing the services shall be reimbursed for all reasonable expenses incurred up to the date of termination.

# STANDARD CALIFORNIA NONDISCRIMINATION CONSTRUCTION CONTRACT SPECIFICATIONS

*(GOVERNMENT CODE, SECTION 12990)*

Item 6

These specifications are applicable to all state contractors and subcontractors having a construction contract or subcontract of $5,000 or more.

1. As used in the specifications:

   (a) "Administrator" means Administrator, Office of Compliance Programs, California Department of Fair Employment and Housing (DFEH), or any person to whom the Administrator delegates authority.

   (b) "Minority" includes:

   (1) Black (all persons having primary origins in any of the Black racial groups of Africa, but not of Hispanic origin);

   (2) Hispanic (all persons of primary culture or origin in Mexico, Puerto Rico, Cuba, Central or South America or other Spanish derived culture or origin regardless of race);

   (3) Asian/Pacific Islander (all persons having primary origins of any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands); and

   (4) American Indian/Alaskan Native (all persons having primary origins in any of the original peoples of North America and who maintain culture identification through tribal affiliation or community recognition).

2. Whenever the contractor or any subcontractor subcontracts a portion of the work, it shall physically include in each subcontract of $5,000 or more the nondiscrimination clause in the contract directly or through incorporation by reference. Any subcontract for work involving a construction trade shall include the Standard California Construction Contract Specifications, either directly or through incorporation by reference. Any subcontract for work involving a construction trade shall also include the Standard California Construction Contract Specifications, either directly or through incorporation by reference.

3. The contractor shall implement the specific nondiscrimination standards provided in paragraphs 6(a) through (e) of these specifications.

4. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the contractor's obligations under these specifications, Government Code, Section 12990, or the regulations promulgated pursuant thereto.

5. In order for the nonworking training hours of apprentices and trainees to be counted, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor or the California Department of Industrial Relations.

6. The contractor shall take specific actions to implement its nondiscrimination program. The evaluation of the contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The contractor must be able to demonstrate fully its efforts under Steps a. through e. below:

   a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the contractor's obligations to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

   b. Provide written notification within seven days to the Director of DFEH when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

   c. Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training, recruitment and outreach programs and requesting their cooperation in assisting the Contractor to meet its obligations; and by posting the company policy on bulletin boards accessible to all employees at each location where construction work is performed.