

WILDLIFE CONSERVATION BOARD  
STATE OF CALIFORNIA  
MINUTES, MEETING OF AUGUST 25, 1949

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Pursuant to the call of the Chairman, the Wildlife Conservation Board met in the Board Room of the Public Works Building, Sacramento, on August 25, 1949. The meeting was called to order by Chairman Silva at 10:15 A.M.

PRESENT:	Wm. J. Silva	Chairman
	James S. Dean	Member
	E. L. Macaulay	Member
	Assemblyman Lloyd W. Lowrey	Joint Interim Committee
	Assemblyman S. L. Heisinger	" " "
	Seth Gordon	Consultant
	C. R. Knight, Jr.	Field Agent
ABSENT:	Senator Ralph E. Swing	Joint Interim Committee
	Senator George J. Hatfield	" " "
	Senator Ben Hulse	" " "
	Assemblyman Thomas M. Erwin	" " "

The following persons were present and participated in the deliberations as required:

Hon. Louis G. Sutton	Member of the Senate
Hon. George Miller, Jr.	" " " "
Hon. Harold T. Johnson	" " " "
Hon. Lester A. McMillan	Member of the Assembly
Ernest A. Aronstein	Departmental Accounting Officer
Lloyd Henrikson	Department of Finance
Ben Glading	Bureau of Game Conservation
R. E. Curtis	" " " "
Lawrence Cloyd	" " " "
John Chatten	" " " "
A. C. Taft	Bureau of Fish Conservation
D. H. Fry	Bureau of Marine Fisheries
Warden Larry Werder	Bureau of Patrol
Warden Walter Gray	" " "
Kramer Adams	Public Information Officer
Seth Millington	Attorney, Gridley
Henry H. Irwin	Oakland
G. W. Philpott	Sportsmen's Council of Central California
E. I. Lane	Plumas County Conservation League
L. W. Wiley	Monterey County Fish and Game Commission

Numerous representatives of the press, sportsmen's groups, and others, were also in attendance.

1. Approval of Minutes

It was regularly moved and seconded that the reading of the minutes of the Wildlife Conservation Board meeting of June 3, 1949, be dispensed with and said minutes approved as written. Passed unanimously.

## 2. Hearing re Waterfowl Problems

Chairman Silva stated that there were people present who were opposed to the proposed waterfowl program and, while the agenda was too full to permit a thorough discussion at this meeting, the Board would be glad to hear what they had in mind and see what arrangements could be worked out.

Seth Millington, Attorney, representing landowners in Butte County, spoke in opposition to the proposed expansion of the Grey Lodge Refuge and the creation of another refuge in that locality, stating that if refuges are constructed as contemplated the people in that area will have to go out of the farming business. He suggested that as an alternative a refuge might well be established on some of the unreclaimed land in the Butte Basin. Chairman Silva informed the group that one of the primary purposes of the new waterfowl program is to relieve farmers of widespread crop damage. In response to Mr. Silva's question, Mr. Millington stated that unless the refuges were huge enough to feed large populations of ducks they increased depredation.

It was regularly moved and seconded that a special meeting be held, upon call of the Chair, to hear all sides of the waterfowl refuge problem, and that all interested parties be invited to attend. Passed unanimously.

After discussion it was agreed that for the convenience of those concerned the above hearing should be held around the latter part of November or early in December. Senator Miller and Assemblyman McMillan expressed their appreciation to the Board for arranging for the hearing.

## 3. Consultant's Progress Report

Mr. Gordon next submitted a brief progress report, and stated that copies were being sent to Division of Fish and Game personnel and sportsmen's organizations throughout the state so that they might be fully informed as to the Board's activities.

He said that the revised composite list of projects as of July 15, contained 70 Fish Projects, 54 Game Projects, and 8 General Projects, and that additional proposals were being prepared for submission. Some projects received since July 15, due to their urgency had been included in the agenda for this meeting.

Special consultants completed the second portions of their short-term assignments during the spring and summer months and progress in completing field studies has been very satisfactory considering the vastness of the territory to be covered. One phase of the survey, coastal angling facilities available to the public, has barely been started, due to the illness of the special consultant who is to do this work. Indications are that this coastal survey is of far greater importance than was originally anticipated. Large sectors of the remaining coastal shorelines which are still available for public angling (as well as waterfowl hunting) are rapidly being taken over by individuals for restricted use, or are being commercialized. These recreational opportunities will be forever lost to the general public if remedial steps are too long delayed.

The consultant informed the Board that present funds apparently will be sufficient to finance, or at least to initiate, those projects which properly can be classified as being of top priority importance. When the statewide survey is completed and final recommendations submitted, proposals which fall into the secondary classifications will be listed for consideration if and when additional monies are made available from the Pari-mutuel Fund for the use of the Wildlife Conservation Board. Up to and including the June 3 meeting of the Board, appropriations were as follows:

Fish Projects . . . . .	\$1,955,300
Game Projects . . . . .	4,303,251
General Projects. . . . .	<u>30,000</u>
Grand Total . . . . .	\$6,288,551

The consultant offered for comparison with the above figures the following figures, representing capital investments for fish and game programs during the past ten years (exclusive of 1941-43 when such expenditures were negligible):

Fish Hatcheries . . . . .	\$667,000
Game Farms. . . . .	154,000
State Waterfowl Refuges . . . . .	<u>129,000</u>
Grand Total . . . . .	\$950,000

Attention was called to the fact that during this period the Division of Fish and Game had spent over six times as much for fish hatcheries and game farms as it did for waterfowl lands. The urgent necessity for the current purchases of waterfowl lands were analyzed, it being emphasized that agricultural conditions have changed radically. While in years past it was sufficient to have refuges which merely served as retreats for waterfowl, it is now necessary to have larger, multi-purpose areas.

Present studies clearly indicated the need for sufficient crop land of known productivity in each major waterfowl wintering area to raise large quantities of food annually to attract and hold the waterfowl on management areas, thereby relieving crop depredations as envisioned under the "Memorandum of Understanding" between the Division of Fish and Game and the U. S. Fish and Wildlife Service.

While this undertaking will cost much more money than would have been true 10 or 15 years ago, California has an obligation to help maintain the waterfowl supply of the western flyways, the State must help protect farmers against excessive crop losses, and the average citizen deserves a chance to hunt ducks and geese. The seven new key waterfowl projects approved by the Board and accepted by the Fish and Game Commission, when supplemented by the areas agreed upon by the U. S. Fish and Wildlife Service, will serve the triple purpose desired.

Mr. Gordon stated it would have been sheer folly to acquire only one or two major areas in the Sacramento Valley, and probably one in the San Joaquin Valley, on the assumption that the State could not afford to invest more funds for waterfowl. Such an approach would have been entirely inadequate to meet the long accumulated needs. The capital investments already approved for waterfowl management lands will pay big future dividends. An inadequate program would merely have been a constant source of annoyance and friction.



Attention was drawn to the fact that some California sportsmen apparently feel that the Division of Fish and Game has not moved rapidly enough to install new projects with the funds provided by the Board. It was pointed out that the officials of the Division of Fish and Game are always faced with heavy administrative responsibilities, and that the installation of properly planned new projects requires time and patience. The progress of these installations depends in large part upon the speed with which other State agencies can help to expedite the work, especially the engineering and planning phases. Sportsmen and others interested were urged to be patient and cooperative.

#### 4. Tentative Reservation of Funds

The consultant stated that at the June 3 meeting tentative reservations of funds had been recommended as follows:

(a) Quail Habitat Development and Improvement . . . . .	\$375,000
(b) Owens Valley Pheasant Development Project . . . . .	\$125,000
(c) Flow Maintenance and Stream Improvement Projects. . . . .	\$750,000
(d) Other Fish Projects, including warmwater fishes . . . . .	\$250,000
(e) Screen and Ladder Projects. . . . .	\$500,000
(f) Reserve for all other projects, including operations. . . . .	<u>\$700,000</u>
TOTAL . . . . .	\$2,700,000

Also that the Board appropriated funds for projects chargeable to Item (c) aggregating \$82,000 at the June 3 meeting, leaving \$668,000 in that sum, and \$25,000 chargeable to Item (f), leaving \$675,000 in the recommended reserve.

#### 5. Project Recommendations

The consultant recommended that the Board approve specific allocations from the foregoing blanket sums as below indicated, with the understanding that for a number of projects engineering plans and other details must be worked out before actual work can be undertaken. He stated that the funds recommended, particularly for projects covering flow maintenance and stream improvement, may be insufficient to carry the projects to completion, but will serve to get them underway.

In reply to Mr. Dean's question, Mr. Gordon explained the necessity for allocating funds for the recommended projects at this meeting, stating many of the allocations would have to be keyed in with the Division of Fish and Game budget for this year and, in the case of the upland game projects, the Federal Aid Program. He called attention to the fact that Senator Hatfield had, at the June 3 meeting, expressed his approval of the tentative reservation of funds, including Items 4(a) and 4(b) above.

(a) Quail Habitat Development and Improvement Project - No. 554

An allocation of \$375,000 was recommended for this project, which covers a 3-year program of quail habitat development in all of California south of U. S. Highway 40, with major emphasis south of the Tehachapi. It is a consolidation and expansion of Projects No. 503, Desert Quail, for which the Board previously provided \$44,000; No. 518, Desert Big Game; No. 546, San Diego County Quail Habitat Improvement; and No. 549, Coast Counties Quail, for which the Board supplied \$4,750.

The allocation is to be subdivided as follows:

San Joaquin Region . . . . .	\$60,256.00
South Coast Region . . . . .	\$102,881.00
Southeast Desert Region. . . . .	\$64,096.50
Replacement of vehicles and other equipment. . . . .	\$40,000.00
Contract Services and/or seasonal labor. . . . .	<u>\$107,766.50</u>
Grand Total. . . . .	.\$375,000.00

The above sum, added to Federal Aid funds, which will be used primarily for labor, will assure a 3-year quail habitat development and improvement program aggregating \$1,015,000.

Mr. Glading, in reply to Senator Sutton's question, stated that the Federal Aid Program for such work is set up on a statewide basis, but through past experience it had been determined that the best returns per dollar invested were obtained in the dry areas of the south, therefore major emphasis in the south was recommended. He informed those present that the upland game program for the Sierra foothills included construction of a number of check dams, which would probably also create fishing possibilities. In this event, the Bureau of Fish Conservation would be requested to collaborate.

The consultant then observed that many of the waterfowl projects are multi-purpose areas and will also benefit game other than waterfowl, as well as offering possibilities for creation of warmwater fishing areas. He observed that conditions in the southern part of the state limit the projects for that region, but that the recommended quail program should be of great benefit to that vast territory.

Mr. Philpott, speaking for the Organized Sportsmen, expressed their confidence in the recommendations of the consultant and the Commission, and said they would go along with them.

It was regularly moved and seconded that an allocation of \$375,000 be made to the Fish and Game Commission from the Wildlife Restoration Fund for Quail Habitat Development and Improvement, Wildlife Conservation Board Project No. 554, and that the Fish and Game Commission is hereby authorized to proceed with the purchase of necessary equipment and required construction work. Passed unanimously.

(b) Owens Valley Pheasant Development Project - No. 521

An allocation of \$51,150 was recommended for this project, as it was now felt the initial program, as recently revised, could be financed with this amount, and the balance of the \$125,000 originally recommended could be used for other game projects. Ultimately about 20,000 acres should be developed to benefit upland game populations in the Owens Valley, particularly pheasants, quail, and rabbits.

Estimated requirements: Property, including trailers - \$13,500; automotive equipment - \$7,650; tractors, miscellaneous farm equipment, and tools - \$18,000; other materials and supplies - \$12,000. Salaries for supervision and personnel will be provided from Pittman-Robertson funds, which over the 3-year period will make a total program in excess of \$125,000.

The consultant stated that other very desirable projects in the Owens Valley could not be recommended at this time and would have to await clearance with the City of Los Angeles.

It was regularly moved and seconded that an allocation of \$51,150 be made to the Fish and Game Commission from the Wildlife Restoration Fund for the Owens Valley Pheasant Development Project, Wildlife Conservation Board Project No. 521; that the State Public Works Board is hereby authorized to acquire any property needed, and the Fish and Game Commission is authorized to proceed with the negotiation of any leases or other easements involved, the construction of such facilities as may be suitable therefor, and the purchase of such equipment as may be essential to put this project into operation. Passed unanimously.

(c) Flow Maintenance and Stream Improvement Projects

Mr. Gordon recommended that an allocation totaling \$284,000 be made from the balance of \$668,000 remaining in the tentative reservation of funds for flow maintenance and stream improvement projects for the following:

- (1) El Dorado Flow Maintenance Dams - No. 1: El Dorado  
National Forest, El Dorado and Alpine Counties . . . . . \$65,000 (c)

An initial appropriation of \$35,000 was made to finance a pilot project, using State Youth Authority workers, and while it was too early to appraise the results fully the project was undoubtedly a very worthy one. Additional funds may be required later.

- (2) Emigrant Basin Flow Maintenance Dam and Stream Improvement Program - No. 16: Stanislaus National Forest,  
Alpine, Calaveras, and Tuolumne Counties . . . . . \$50,000 (c)

The consultant observed that this was the area in which pioneering was done some years ago to determine the benefits of flow maintenance and stream improvement. The amount recommended was deemed essential to further the program in that area.



(3) Flow Maintenance Dams - No. 41, Units 1 and 2

Granite Creek Flow Maintenance Dams - Unit 1:

Sierra National Forest, Madera County. . . . . \$30,000 (c)

The Board was informed this amount would initiate and probably complete the urgent portions of the flow maintenance work on the Granite Creek watershed.

Marsh Lake Level Maintenance - Unit 2: Inyo County. . . \$4,000 (c)

The recommended amount was based on the complete estimate to restore this very heavily fished lake to its original area of 4 acres.

(4) Tahoe National Forest Flow Maintenance and Improvement Program - No. 49: Tahoe National Forest, Nevada and Placer Counties, including Upper Truckee River Improvement, El Dorado County. . . . . \$40,000 (c)

Recommended funds will initiate program in that area and complete essential work.

(5) Sequoia National Forest Flow Maintenance Dams - No. 51: Tulare and Kern Counties. . . . . \$50,000 (c)

Engineering information so far available is wholly inadequate. Recommended work is necessary. Funds should be allocated to initiate the program immediately after required information is obtained.

(6) San Diego County Flow Maintenance Dam Program - No. 58: San Diego County. . . . . \$25,000 (c)

This project, consisting of 10 units, requires further detailed study. Funds should be allocated so that the work may be initiated promptly.

(7) Crystal Lake Level Maintenance - No. 73: Angeles National Forest, Upper San Gabriel Canyon, Los Angeles County . . . . . \$20,000 (c)

This project consists primarily of purchasing pipe to collect water which is now wasted, in order to maintain a proper level in Crystal Lake. This small lake, only a few acres in area, is probably more heavily fished than any other similar body of water in California. The U. S. Forest Service will cooperate by installing the required pipe.

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Total, Recommended Flow Maintenance and  
Stream Improvement Projects . . . . . \$284,000 (c)

In reply to Mr. Dean's question, the consultant stated that little work could be accomplished on the above projects this season; the prime

objective was to get everything set up so that work could get underway early in the spring. Messrs. Dean and Lowrey expressed the opinion that these projects were very worthy, and in addition to their wildlife conservation benefits would provide much recreation.

It was regularly moved and seconded that funds be allocated to the Fish and Game Commission from the Wildlife Restoration Fund (out of the \$668,000 balance in the tentative reservation of funds for flow maintenance and stream improvement projects) for recommended projects as follows, the Fish and Game Commission being authorized to proceed with the construction work as needed: El Dorado Flow Maintenance Dams, Project No. 1 - \$65,000; Emigrant Basin Flow Maintenance Dam and Stream Improvement Program, Project No. 16 - \$50,000; Flow Maintenance Dams, Project No. 41: Granite Creek Flow Maintenance Dam, Unit 1 - \$30,000, and Marsh Lake Level Maintenance, Unit 2 - \$4,000; Tahoe National Forest Flow Maintenance and Improvement Program, Project No. 49 - \$40,000; Sequoia National Forest Flow Maintenance Dams, Project No. 51 - \$50,000; San Diego County Flow Maintenance Dam Program, Project No. 58 - \$25,000; and Crystal Lake Level Maintenance, Project No. 73 - \$20,000, involving a total of \$284,000. Passed unanimously.

(d) Other Fish Projects, Including Warmwater Fishes

It was recommended that an allocation totaling \$51,000 be made from the tentative reservation of \$250,000 for other fish projects, including warmwater fishes, for the following projects:

- (1) San Diego River Development Program - Project No. 57:  
San Diego County. . . . . \$35,000 (d)

Mr. Gordon remarked that this constitutes the first warmwater fish project in Southern California, and that a number of others are in the process of preparation. It primarily contemplates the use of sand and gravel pits along the river bed to develop warmwater fishing ponds. The amount suggested will permit initiation of the program; however, information recently received indicates a much larger sum will be needed to complete the program.

He stated that negotiations were underway to set up a cooperative approach to this project, with San Diego City or County agencies acquiring control of the necessary lands. Contemplated work would include grading the steep banks of these pits to permit safe access for fishermen and creating favorable conditions for warmwater fishes. It was brought out that there is water in these pits the year round.

- (2) Shasta River Fish Counting Dam - Project No. 61:  
Siskiyou County, on the Shasta River near junction with  
Klamath River . . . . . \$16,000 (d)

The consultant stated that this estimate covers the cost of constructing the counting dam and one small cottage to house an attendant.

In reply to Assemblyman Lowrey's question, Mr. Taft pointed out that the present structure on the Shasta River was built primarily as an egg collecting station and it was impossible to operate for counting purposes during the winter.

Total, Recommended Other Fish Projects \$51,000 (d)

It was regularly moved and seconded that funds be allocated to the Fish and Game Commission from the Wildlife Restoration Fund (out of the tentative reservation of \$250,000 for other fish projects, including warmwater fishes) for recommended projects as follows: San Diego River Development Program, Project No. 57 - \$35,000; and Shasta River Fish Counting Dam, Project No. 61 - \$16,000, involving a total of \$51,000; that the State Public Works Board is hereby authorized to acquire any property needed, and the Fish and Game Commission is authorized to proceed with the negotiation of any leases or other easements involved, the construction of such facilities as may be suitable therefor, and the purchase of such equipment as may be essential to put these projects into operation. Passed unanimously.

*Funds allocated*

(e) Screen and Ladder Projects

It was recommended that an allocation totaling \$184,000 be made from the tentative reservation of \$500,000 for screen and ladder projects for the following:

- (1) Daguerre Point Fish Ladder - No. 3: Yuba County, northeast of Marysville, at the junction of Dry Creek and the Yuba River . . . . . \$100,000 (e)

The Board was informed that the Daguerre Point Dam blocks salmon from nearly 90% of the suitable spawning grounds on the Yuba River. There is a small so-called fishway on the south end of the dam which has been almost totally inoperative. Few salmon get past this structure at any river flow, and none at all at low flow. The dam is 750' long, and a minimum of two fishways should be built, one at each end. It is believed that the U. S. Army Engineers may be persuaded to contribute half of the cost. If so, the balance of the recommended amount can later be re-allocated.

In reply to Chairman Silva's question, the consultant stated that when special consultant Milo Bell investigated this project he recommended, in view of the stream division mentioned above, construction of a ladder at each end of the dam rather than the single ladder originally contemplated.

- (2) Deer Creek Falls Fish Ladder - No. 9: Deer Creek Falls in Tehama County . . . . . \$10,000 (e)

The consultant stated a ladder approximately 25' high will be required, and pointed out that from there upstream there are no falls to hinder fish from using many miles of new spawning grounds. (When the Shasta Dam was built the Federal Government constructed a ladder over the Windy Cut Falls on Deer Creek, about 6 miles below Deer Creek Falls.)

Mr. Taft assured the Board that, according to a report of the U. S. Fish and Wildlife Service, fish were successful in getting over the Windy Cut Falls fish ladder last year.

- (3) Smaller Fish Screens and Ladders - No. 44, Units 2 and 3

Burnt Ranch Falls Fish Ladder - Unit 2: Trinity County, Trinity River . . . . . \$8,000 (e)

The rapids in the Trinity River at Burnt Ranch constitute a bottleneck. Large runs of salmon frequently reach the rapids when the flow is small and have difficulty ascending. This constitutes a serious obstruction to spawning migrations of salmon, and to a lesser extent steelhead. It is proposed to blast three large pools out of the bedrock in the falls. No other construction contemplated.

Bennett and Smith Dam Fish Ladder - Unit 3: Siskiyou County, on South Fork of Salmon River . . . . . \$6,000 (e)

Mr. Gordon informed the Board that the runs of steelhead and salmon on the South Fork of the Salmon River are still large enough to justify the construction of a new fish ladder. The present ladder is too small for large salmon and is badly located. It was built sometime prior to 1912 and files indicate the ladder was deemed unsatisfactory as far back as 1914. A larger concrete ladder will be built at the opposite end of the dam, where it will function properly and be less accessible to poachers.

- (4) Sutter-Butte Fishway - No. 45: Butte County, on the Feather River . . . . . \$50,000 (e)

This dam has an inadequate fishway and heavy losses of migrating fish occur. The Division of Architecture has prepared preliminary plans.



- (5) Central Headquarters For Stream Improvement - No. 42:  
At Central Valleys Hatchery, Elk Grove, Sacramento Co. . . \$10,000 (e)

Since the majority of California's sport and commercial catch of king salmon are spawned in the Central Valley, the stream improvement program of the Bureau of Marine Fisheries is concentrated in that region. Recommended headquarters are needed in connection with the long-range program for the construction of screens on all important diversions and fishways past all barriers which now cut off available spawning areas.

Total, Recommended Screen and Ladder Projects . . . \$184,000 (e)

Assemblyman Heisinger observed that in many of the ladders he had seen in operation the approaches were poorly located in relation to the spots where the fish congregated. Mr. Gordon agreed, and stated that current designs take these matters into consideration. He added that Mr. Bell had invited personnel of the Bureaus of Marine Fisheries and Fish Conservation and Mr. Elliger of the Division of Architecture to visit Washington for the purpose of inspecting recently constructed screens and ladders in that state.

It was regularly moved and seconded that funds be allocated to the Fish and Game Commission from the Wildlife Restoration Fund (out of the tentative reservation of \$500,000 for screen and ladder projects) for recommended projects as follows: Daguerre Point Fish Ladder, Project No. 3 - \$100,000; Deer Creek Falls Fish Ladder, Project No. 9 - \$10,000; Smaller Screens and Ladders, Project No. 44: Burnt Ranch Falls Fish Ladder, Unit 2 - \$8,000, and Bennett and Smith Dam Fish Ladder, Unit 3 - \$6,000; Sutter-Butte Fishway, Project No. 45 - \$50,000; and Central Headquarters for Stream Improvement, Project No. 42 - \$10,000, involving a total of \$184,000; that the State Public Works Board is hereby authorized to acquire any property needed, and the Fish and Game Commission is authorized to proceed with the negotiation of any leases or other easements involved, the construction of such facilities as may be suitable therefor, and the purchase of such equipment as may be essential to put these projects into operation. Passed unanimously.

(f) Hatchery Program

The Board was informed that intensive studies to date have failed to locate a suitable site for a large hatchery between Moccasin Creek, Tuolumne County, and Darrah Springs in Shasta County (within a mile and a half of the Tehama County line). Mr. Gordon stated that studies are being continued, and that definite provision should be made for a trout hatchery in this region, either with funds currently available or monies to be appropriated in the future. He expressed the belief that a favorable situation, such as at Friant, may be developed at Folsom Dam or at one of the other impoundments to the north.



Mr. E. I. Lane, President of the Plumas County Conservation League, stated that a hatchery was badly needed to furnish fish for stocking waters of Plumas County and asked that funds be reserved for such a hatchery. He added that it was of no consequence whether the hatchery itself was located in the County so long as the fish were supplied. Chairman Silva commended Mr. Lane for this attitude, and stated that it was the intention of the Board to develop a hatchery program that would provide stock for all fishable waters of the state.

The consultant stated that further studies of the Mt. Shasta, Crystal Lake, Tahoe, and Mt. Tallac Hatcheries had been completed, and submitted the following recommendations:

(1) Mt. Shasta Hatchery - No. 21

It was recommended that the appropriation of \$205,000, approved by the Board at the March 19, 1949 meeting, be reduced to \$170,000, and the balance of the appropriation (\$35,000) be used to help finance expansions at Crystal Lake and Tahoe.

The Board was advised that all of those who have studied the situation, especially the need for fingerlings for high mountain lakes, agree that the Mt. Shasta Hatchery should be retained and rehabilitated. Buildings to be continued have recently been painted and put in good condition. Obsolete buildings should be torn down.

In reply to Senator Sutton's question, Mr. Gordon stated that while the water is rather cold no better water supply is available in the surrounding territory. He added that, according to recent correspondence with trout experts, it is not believed desirable to take fingerlings produced in warmwater hatcheries and plant them in the waters of high mountain lakes where the food supply is usually far less abundant, because these young fish are geared to a high metabolic activity.

It was pointed out that a new meat storage refrigeration and food preparation building is badly needed at this hatchery, and that improvements should be made to the water system, including supply lines, spillways, flumes, etc.

It was recommended that the old ponds be razed and one string of 15 raceway ponds constructed immediately; the second string to be roughed in, but complete construction deferred for the present unless it is found that the entire 30 ponds and other necessary construction can be completed for the reduced sum.

Mt. Shasta Hatchery produced almost 3,000,000 fingerlings and approximately 100,000 catchable fish during the past year. With the proposed 30 ponds this plant can produce 75,000 pounds, or 200,000 more catchable trout.

Chairman Silva asked if the Board could reduce hatchery items previously agreed upon and accepted by the Commission. The consultant replied that it was his belief that members of the Commission would be willing to go along with the change, and drew attention to the fact that various legal minds in California are of the opinion that it

would be mandatory for the Commission to accept the reduced allocation.\*

In reply to Chairman Silva's question as to whether he went along with reducing the allocation for Mt. Shasta Hatchery, Mr. Taft stated he concurred in the recommendation that rearing ponds be limited to 15 at this time, but he did not have a sufficiently accurate estimate to determine whether the complete plant could be built for the reduced amount, and added that they would try to work this out.

- (2) Crystal Lake Hatchery - No. 22: Shasta County . . . . . <sup>\$101,500</sup>~~\$241,500~~ (f)

The Board was informed that the Crystal Lake water supply had recently been sterilized as recommended, and it was believed the previous problems have been eliminated. If not, a pipeline from the hatchery raceway to the headwater springs can be constructed. The consultant said the device invented to sterilize the water supply was a credit to the ingenuity of the staff members of the Division of Fish and Game.

The present 24 ponds and other improvements were constructed with Wildlife Conservation Board monies (\$140,000). These ponds will produce approximately 72,000 pounds of catchable fish annually.

It was recommended that the plant be completed as originally contemplated. Plans for the additional construction are in the hands of the Division of Architecture. The additional needs were listed as follows: Lining for 1800 feet of canal, new hatchery and feed storage buildings, food preparation room, mechanical work shop, garage and shop building, and four residences. No additional employees would be required.

It was felt that development of 24 additional ponds should be deferred for the present, but funds should later be set aside for them.

- (3) Tahoe Hatchery - No. 25: Placer County . . . . . \$240,000 (f)

The consultant informed the Board that the needs in the Tahoe area had been given further study, that it had been determined that suitable water can be pumped out of Lake Tahoe (temperature 45° - 65° F. six feet below surface) to provide additional water for hatchery purposes as needed, and especially to supply 30 raceway-type ponds to be constructed on property to be purchased adjacent to the hatchery. Other necessary equipment was listed as follows: Refrigerated storage for fish food, food preparation room, shop and garages for 10 pieces of automotive equipment, and 4 additional housing units.

When the new construction has been completed at Tahoe, it was recommended that the Mt. Tallac Hatchery be discontinued, and employees and equipment there transferred to the Tahoe Hatchery.

The present normal production at Tallac Hatchery is approximately 875,000 fingerlings. (At the March meeting of the Board this figure was erroneously listed as 200,000.)

The present production of fingerling trout at the Tahoe Hatchery is 800,000 to 900,000, with a maximum capacity of 1,400,000. The 30

\*NOTE: Deputy Attorney General Scott later stated that since the funds had not yet actually been transferred to the Commission there would be no question about this action.



raceway-type ponds will permit the production of 75,000 pounds of catchable fish, or approximately 600,000 to 1,500,000 trout, depending upon the size, in addition to the present normal production of approximately 1,000,000 fingerlings.

After completion of the above plant all trout stocked in Lake Tahoe should be catchable size. Additional catchable fish are also needed for other heavily fished waters in that region.

The consolidated plant will require approximately 3 additional regular employees, or a total of 8.

The original estimated cost for the Tahoe Hatchery as listed in Project No. 25 was \$215,000. Mr. Gordon stated the additional \$25,000 now recommended was to cover the cost of land. He added that, if a suitable water supply and site can later be located, a substation should be constructed with 20 circular tanks to provide fingerlings for transfer to the Tahoe ponds in April. In that event, \$85,000 additional should later be provided.

In reply to Assemblyman Lowrey's question, Mr. Taft stated it was not believed that the mackinaws now inhabiting Lake Tahoe would interfere with the planted trout. He informed the Board that the rainbow trout stay fairly close to shore, while the mackinaws frequent the deeper water; also that a new forage fish (Kokanee) was being introduced to these waters for the benefit of the mackinaws. It was brought out that because of the great depth of the lake no attempt was being made to eliminate the mackinaws.

Chairman Silva expressed the opinion that the terrific fishing pressure on Lake Tahoe and nearby streams justified every effort to provide a reasonable amount of catchable fish. Assemblyman Heisinger concurred, adding that the fishermen "pay the freight" by purchasing licenses.

In summation, the consultant recommended that the previous allocation of \$205,000 for the Mt. Shasta Hatchery approved by the Board at the March 19, 1949 meeting be reduced to \$170,000, the \$35,000 saving to be used to help finance expansions amounting to \$241,500 at Crystal Lake Hatchery and \$240,000 at Tahoe Hatchery, and that the Mt. Tallac Hatchery be discontinued when the new construction at Tahoe Hatchery was completed. He suggested the additional \$446,500 recommended for expansion of the hatchery program be allocated out of the present balance of \$675,000 in the tentative "reserve for all other projects, including operations."

It was regularly moved and seconded that the previous allocation of \$205,000 for the Mt. Shasta Hatchery approved by the Wildlife Conservation Board at the March 19, 1949 meeting be reduced to \$170,000, and the \$35,000 saving be used to help finance expansions at Crystal Lake Hatchery and Tahoe Hatchery. Passed unanimously.

It was further regularly moved and seconded that funds be allocated to the Fish and Game Commission from the

\*\$101,500 (Intention was to increase allocation for Crystal Lake  
To a grand total of \$241,500)  
\*\*\$306,500



Wildlife Restoration Fund (out of the remaining balance of \$675,000 in the tentative reserve for all other projects) as follows: Crystal Lake Hatchery, Project No. 22 - \$241,500; and Tahoe Hatchery, Project No. 25 - \$240,000, involving a total of \$481,500, less the \$35,000 resulting from the reduced allocation for Mt. Shasta Hatchery, or a net total of \$446,500; that the State Public Works Board is hereby authorized to acquire any property needed, and the Fish and Game Commission is authorized to proceed with the negotiation of any leases or other easements involved, the construction of such facilities as may be suitable therefor, and the purchase of such equipment as may be essential to put these projects into operation; and that the Mt. Tallac Hatchery shall be discontinued and abandoned as soon as practicable. Passed unanimously.

- (g) South Humboldt Bay Public Recreational Area - No. 1006:  
Humboldt County . . . . . \$8,000 (f)

The consultant informed the Board this project had been thoroughly studied by representatives of the Board and employees of the Division of Fish and Game. In view of its importance as a public recreational area, particularly to provide surf fishing and waterfowl shooting for the public, he recommended that the South Spit (from the Government property at the north end to Table Bluff, a distance of about  $4\frac{1}{2}$  miles) and a limited amount of private land at the south end of the Bay, or a total of approximately 670 to 900 acres, be purchased at an estimated maximum cost of \$8,000.

It was pointed out that under the present plans there would be no maintenance cost for this project. Mr. Gordon suggested that the recommended allocation be made out of the remaining balance in the tentative "reserve for all other projects, including operations."

The Board was informed that Humboldt County now maintains, in travelable condition, a gravel road running the entire length of the spit.

This project would constitute the first purchase of its kind in an area where public recreational pressure is developing rapidly. Other projects of a similar character are being studied. They should be acquired promptly, either with present funds or future appropriations.

Mr. Lowrey asked if any studies were being made of Stone and Big Lagoons as he understood private interests were moving into these areas. Mr. Gordon replied that studies are being made of these and other similar areas, and unless the State acquired some of these comparatively inexpensive lands immediately it would be too late.

Wardens Walter Gray and Larry Werder of Humboldt Co. concurred. Mr. Gray stated that the State Division of Beaches and Parks was also interested in the north coast lagoon areas and suggested that some cooperative arrangements might be worked out. Mr. Werder recommended Fresh Water Lagoon as another worthy project in that area, especially in view of the

\* \$101,500  
\* \* \$341,500  
\* \* \* \$306,500



that the State Division of Highways was now building a road right along the edge of this lagoon which would make it very accessible to fishermen and hunters.

It was regularly moved and seconded that an allocation of \$8,000 be made to the Fish and Game Commission from the Wildlife Restoration Fund (out of the remaining balance of \$228,500 in the tentative reserve for all other projects) for the South Humboldt Bay Public Recreational Area, Project No. 1006; that the State Public Works Board is hereby authorized to acquire any property needed, and the Fish and Game Commission is authorized to proceed with the negotiation of any leases or other easements involved, the construction of such facilities as may be suitable therefor, and the purchase of such equipment as may be essential to put this project into operation. Passed unanimously.

6. Re-employment of Special Consultant on Warmwater Fishes

The consultant read a letter submitted by Mr. George Difani, Chairman of the Spiny-ray Fish Committee of the Organized Sportsmen of California, commending the Board for selecting Dr. R. W. Eschmeyer of Norris, Tennessee, to study development of warmwater fishing possibilities in California, and stating that the committee had been very favorably impressed with the excellent work done by this special consultant. They recommended that the Board re-employ Dr. Eschmeyer for a period of six months for the dual purpose of continuing his studies and assisting in formulating plans for warmwater fishing areas and getting such a program underway.

Mr. Philpott stated that this letter and recommendation had the unanimous approval of all sportsmen's clubs, and Assemblyman Lowrey expressed the belief that in his opinion Dr. Eschmeyer's assistance was essential to this program. The consultant remarked that it would be necessary to find out for what period or periods Dr. Eschmeyer's services would be available, and Chairman Silva requested that this be done.

It was regularly moved and seconded that the employment of Dr. R. W. Eschmeyer be authorized for whatever period or periods his services might be available to the Wildlife Conservation Board up to a total of six months, for the purpose of continuing studies of warmwater fishing possibilities and assisting in instituting a warmwater fishing program in California. Passed unanimously.

7. Projects Not Recommended Listed in Final Report

In reply to Mr. Philpott's question, Mr. Gordon stated that it was not deemed advisable to cancel out any projects until all of the studies had been completed. He advised that disposition of the remaining projects would be listed in the final report.

8. Consultant's Contract Extended

Moved by Mr. Dean, seconded by Mr. Macaulay, that Mr. Seth Gordon's contract be extended for an additional three months,



from October 1 to December 31, 1949, inclusive. Passed unanimously.

9. Date For Next Meeting

Chairman Silva expressed the belief that it would be well to have the next Board meeting shortly after the Fish and Game Commission meeting to be held in Los Angeles on September 23.

It was regularly moved and seconded that the next meeting of the Wildlife Conservation Board be held upon call of the Chair. Passed unanimously.

There being no further business the meeting adjourned at 1:00 P.M.

(A summary of allocations made from the Wildlife Restoration Fund for approved projects, including those approved at this meeting, is attached. See Appendix A.)

Attach. - Appendix A

# APPENDIX A

## ALLOCATIONS MADE OUT OF THE WILDLIFE RESTORATION FUND FOR APPROVED PROJECTS - AS OF AUGUST 25, 1949

Date Apprvd.	Project No.	Name	Fish	Game	General
3/19/49	44-5	Deer Creek Fish Screens	\$15,000		
"	44-6	Merced River Fish Screens & Ladders	10,000		
"	44-7	Mendota Fish Ladder	20,000		
"	44-8	Salt Slough Fish Ladder	25,000		
"	1001	Central Laboratory	. . .	. . .	\$5,000
"	64	Moorehouse Springs Hatchery	25,000		
"	65	Glenn-Colusa Hatchery	30,000		
"	33	Kern River Hatchery	51,600		
"	29	Cedar Creek Hatchery	125,000		
"	22	Crystal Lake Hatchery	140,000		
"	66	Experimental Pond Construction	20,000		
"	67	Sacramento River Weir	18,000		
"	519-10	Brawley Game Farm	. . .	\$28,000	
"	519-7	Chico Game Farm	. . .	33,000	
"	519-8	Marysville Game Farm	. . .	26,000	
"	519-9	Porterville Game Farm	. . .	19,000	
"	523	Honey Lake Waterfowl Management Area	. . .	22,125	
"	522	Madeline Plains " " "	. . .	32,500	
"	536	Imperial Valley " " "	. . .	20,000	
"	515	Doyle Winter Range	. . .	12,250	
"	503	Desert Quail Development	. . .	44,000	
"	549	Coast Counties Quail Habitat Impr.	. . .	4,750	
"	23	Darrah Springs Hatchery	231,000		
"	38	Fillmore Hatchery	20,000		
"	37	Fish Sprgs. Rearing Ponds	135,000		
"	17	Moccasin Creek Hatchery	250,000		
"	39	Mojave Hatchery	42,700		
"	21	*Mt. Shasta Hatchery	205,000*		
"	19	San Joaquin Hatchery	260,000		
"	18	Tule River Hatchery	100,000		
"	68	Willow Creek Hatchery	120,000		
"	36	Black Rock Rearing Ponds	30,000		
"	548	Lower Butte Creek Waterfowl Mgt. Area	. . .	537,036	
"	507	Upper Butte Creek " " "	. . .	710,000	
"	506	Lower San Joaquin " " "	. . .	512,400	
"	532	Madera Waterfowl Management Area	. . .	621,000	
6/3/49	1	El Dorado Flow Maintenance Dams	35,000		
"	63	Sawyer's Bar Auxiliary Dam	3,500		
"	4	Pine Creek Flow Maintenance Dam	43,500		
"	1008	Airplane Hangar	. . .	. . .	\$25,000
"	550	Delta Waterfowl Management Area	. . .	\$1,148,000	
"	551	Upper San Joaquin Waterfowl Mgt. Area	. . .	533,190	
Total Allocations as of 6/3/49			\$1,955,300	\$4,303,251	\$30,000

GRAND TOTAL - ALLOCATIONS AS OF 6/3/49 - \$6,288,551

\*See note regarding Mt. Shasta Hatchery on next page.

Date Apprvd.	Project No.	Name	Fish	Game	General
(Brought fwd.) - Total Allocations as of 6/3/49			\$1,955,300	\$4,303,251	\$30,000
8/25/49	554	Quail Habitat Development & Impr.	...	375,000	
"	521	Owens Valley Pheasant Development	...	51,150	
"	1	El Dorado Flow Maintenance Dams	65,000		
"	16	Emigrant Basin Flow Maint. Dam and Stream Improvement Program	50,000		
"	41-1	Granite Creek Flow Maint. Dams	30,000		
"	41-2	Marsh Lake Level Maintenance	4,000		
"	49	Tahoe National Forest Flow Maint. and Improvement Program	40,000		
"	51	Sequoia Natl. Forest Flow Maint.	50,000		
"	58	San Diego County Flow Maint.	25,000		
"	73	Crystal Lake Level Maintenance	20,000		
"	57	San Diego River Development Prog.	35,000		
"	61	Shasta River Fish Counting Dam	16,000		
"	3	Daguerre Point Fish Ladder	100,000		
"	9	Deer Creek Falls Fish Ladder	10,000		
"	44-2	Burnt Ranch Falls Fish Ladder	8,000		
"	44-3	Bennett & Smith Dam Fish Ladder	6,000		
"	45	Sutter-Butte Fishway	50,000		
"	42	Central Hdqtrs. for Stream Impr.	10,000		
"	21	*Mt. Shasta Hatchery - (- \$35,000)	101,500*		
"	22	*Crystal Lake Hatchery	241,500*		
"	25	*Tahoe Hatchery	240,000*		
"	1006	South Humboldt Bay Public Recre- ational Area	...	...	\$8,000
Total Allocations Approved at Meeting of 8/25/49			\$ 825 965,500	\$ 426,150	\$8,000
TOTAL ALLOCATIONS AS OF 8/25/49			780 \$2,920,800	\$4,729,401	\$38,000
GRAND TOTAL - ALLOCATIONS AS OF 8/25/49 -			548 \$7,688,201		
Allocations for projects as of 8/25/49 - -			548 \$7,688,201		
Expenditures for operating expenses and equipment, through June 30, 1949 - - -			\$ 41,231		
TOTAL - - - - -			589 \$7,729,432		

\*NOTE: Allocation for Mt. Shasta Hatchery reduced from original allocation of \$205,000 (approved 3/19/49) to \$170,000. The \$35,000 reduction will be used to defray cost of construction at Tahoe and Crystal Lake Hatcheries.

\* see note p. 14