

PROGRESS REPORT TO THE GOVERNOR AND THE LEGISLATURE
by the
STATE ADVISORY COMMISSION ON INDIAN AFFAIRS
(Senate Bill No. 1007)

on
INDIANS IN RURAL AND RESERVATION AREAS



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February 1966

APPENDIX C

June 3, 1964

Mr. Thomas Weaver, *Executive Secretary*
State Advisory Commission on Indian Affairs
Room 3023, State Building
1111 Jackson Street
Oakland, California 94607

Dear Mr. Weaver:

In response to your request of May 19 for information regarding the potential for financing housing for American Indians through the low-rent program of the Public Housing Administration, we are sending you general statements describing the conventional low-rent public housing program and the special mutual-help program which is proceeding in a limited number of Indian communities under a three-way cooperative effort of housing authorities established under tribal councils, the Bureau of Indian Affairs, and this agency.

The fact sheet on "Low-rent Housing for American Indians" describes briefly the fact that the tribal councils of Indian tribes with particular types of government have the same power to create local housing authorities as state governments do. A review of the charters and organizational structures has indicated to BIA and PHA attorneys that many tribes and rancheros in California do not have the power to create housing authorities. The one exception which has come to our attention thus far is the Quechan Tribal Housing Authority on the Fort Yuma Reservation which is proceeding with the development of a 30-unit program under the mutual-help provision.

You may be interested to know that nationally some 34 Indian housing authorities are undertaking mutual-help programs for a total of 1,500 units following the experience developed in a pilot program on the San Carlos Reservation in Arizona where 10 dwellings have been substantially completed and 20 more will be started in the near future. In addition, several Indian housing authorities have proceeded under the conventional low-rent program. In our region these include the Fort Peck Housing Authority with programs at Poplar and Wolf Point, Montana on the Fort Peck Indian Reservation; the Blackfeet Indian Housing Authority at Wapato, Washington; and the Wind River Housing Authority at Fort Washakie, Wyoming.

It also is possible for communities on Indian reservations to construct low-rent public housing with the assistance of housing authorities organized under California state law by the government of a county or an incorporated community. In this case, a proposal to build a low-rent project would be subject to the state requirement of a local referendum approving the project. As we gain experience with the application of the low-rent program to the housing needs of Indian families and elderly, we will be happy to respond to further inquiries. The Bureau of Indian Affairs is involved in the program as well and the area and agency BIA staff will be kept informed of developments in

the program. I am sure you are accustomed to working with Mr. Leonard Hill, BIA area director in Sacramento.

Thank you for your inquiry. If we can supply additional information, please let us know.

Sincerely yours,

Louis B. Ambler, Jr.
Regional Director

Public Housing Administration
Housing and Home Finance Agency
San Francisco

Enc.

May 29, 1963

Honorable Philleo Nash
Commissioner
Bureau of Indian Affairs
Washington 25, D.C.

Dear Mr. Nash:

Your agency has requested us to develop a program that could meet the housing needs of low-income Indian families on reservations, stressing their desire for home ownership, their extreme meager financial resources, and their potential for contributing personal resources in the construction and maintenance of housing. To meet the needs of the Indian families, we have developed a mutual-help housing program under the United States Housing Act of 1937 under which the financial and technical aid available under that act would be combined with mutual-help contributions by the Indian tribes, and with service and assistance of the Bureau of Indian Affairs, to provide housing which would meet such needs.

In the course of the development of this program, we and representatives of our agencies have consulted from time to time with respect to both the features of the program and the responsibilities which should be borne by our respective agencies. As a result of these consultations and correspondence, we have arrived at certain understandings of a suitable division of responsibilities between the PHA and the BIA in the development and operation of the first mutual-help housing project. The purpose of this letter is to outline the elements of our understanding so that, if it meets with your agreement, we can pass it on to our respective regional and area offices with the further understanding that it is subject to modification as we gain experience in the program.

It is recognized that, in this mutual-help housing program for Indians, there are substantial differences from the conventional PHA-aided low-rent housing program. Some of these differences stem from (1) unique ethnic patterns and ways of living, (2) land tenure patterns, (3) the element of "ownership" and the effect of "ownership" incentives, (4) extremely low economic base, (5) rural rather than urban attitudes, and (6) the unique relationships between the

occupants, the local housing authority, and the federal government. Because of these factors, it is important that the PHA regional directors and the BIA area directors work in close cooperation and that contacts with tribal governments, various agencies, and individual tribal members be made at the field level in cooperation with and through the superintendents of the reservations.

A. BUREAU OF INDIAN AFFAIRS

In relation to mutual-help housing projects, the BIA will do the following:

1. Designate, for each mutual-help project, a representative of the BIA to act as a coordinator with the PHA and tribal housing authority.
2. Assist the tribal government in the preparation of the workable program for submission to the Housing and Home Finance Agency.
3. Aid the tribal housing authority in the preparation of the application for program reservation for submission to the PHA. To support the application, the BIA will conduct and prepare, or assist the tribal housing authority in the conduct and preparation of, sample surveys and reports on income, existing housing, family sizes, and attitudes toward mutual-help participation.
4. Assist the tribal housing authority in the preparation of the development program, including site selection and description, preliminary sketches, outline specifications, utility analysis, budgets (including costs for materials, participant contribution, and nonparticipant leadsmen and skilled craftsmen), and data on financial feasibility.
5. Assist the tribal housing authority to prepare dwelling unit designs, site plans, engineering studies, and preliminary and final working drawings and specifications.
6. Assist the tribal housing authority with site selection and land acquisition services, including appraisals, engineering surveys, soil investigations, maps, title evidence, negotiations, and other actions and documents, as necessary.
7. To the extent they are not adequately provided by the tribal housing authority or otherwise without charge to the mutual-help project or participants, the BIA will provide the tribal housing authority with adequate construction services, including overall superintendence, inspection (including quality of materials and construction and adherence to specifications), working documents, purchasing, accounting, cost control, and security of materials, equipment, and tools.
8. Assist the tribe in encouraging, within the limits of economy and feasibility, the use in the projects of locally developed or manufactured materials or products.
9. Upon request of the tribal housing authority or the PHA, the BIA will assist the authority in

the establishment, subject to approval of the PHA, of maximum income limits, operating charges, and other conditions of eligibility and occupancy applicable to participants, and in the selection and organization of qualified participants and replacements for any of the participants.

10. Determine, or assist the tribal housing authority in establishing wage rates for the participants and for any nonparticipants employed in the development of the projects.

11. To the extent that the BIA or the PHA determines that administrative services are not adequately provided by the tribal housing authority or otherwise without charge to the mutual-help project or participants, the BIA will provide for administration of the project. The expenses of such administration may be repaid in whole or in part by the tribal housing authority from the monthly service charges paid by the mutual-help participants. Such administration will include selection and certification of eligibility of participants; collection of participant payments; maintenance of book of accounts; preparation of budgets; preparation of required reports and financial statements; periodic reexamination of participants' income; inspection of dwellings to assure proper housekeeping and maintenance; maintenance and repair in case of participants' failure to take such action; obtaining of required insurance coverage; provision of legal services when necessary; and enforcement of all requirements of the agreement between the participant and the housing authority.

12. Upon request by the PHA, the BIA will review and approve operating budgets and insurance policies for the project and transmit them to the PHA; conduct fiscal audits, management reviews, occupancy audits and maintenance engineering surveys; certify to the PHA that the low-rent character of the project is being maintained and that the other requirements of the tribal housing authority's annual contributions contract are being met; and take any steps necessary to obtain correction of any deficiencies found.

13. Coordinate with the public health service for the provision of health and sanitary facilities for anticipated or proposed projects. Where the PHS will not be able to provide such facilities in time for the completion of an anticipated or proposed projects, the BIA, the PHA, and the tribe will arrive at a mutually satisfactory arrangement for the provision of such health and sanitary facilities as a condition to proceeding with the project. The BIA will certify to PHA that PHS specifications for installation, inspection, and performance of such facilities have been met.

14. Endeavor to formulate training programs for the mutual-help participants in order to obtain the highest level of competence in the construction and maintenance of their homes.

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B. PUBLIC HOUSING ADMINISTRATION

In relation to mutual-help housing projects, the PHA will do the following:

1. Assist the tribal government and the tribal housing authority in the performance of the organizational steps to qualify for financial assistance from the PHA.

2. Furnish advice to the tribal housing authority and the BIA on the analysis of the market surveys made to support the application for program reservation.

3. Determine the number of dwelling units for each program reservation.

4. Furnish advice to the tribal housing authority and the BIA on all aspects of site selection.

5. Furnish advice to the tribal housing authority and the BIA on the preparation of the development program.

6. Prepare an annual contributions contract (providing, among other things, for loans and annual contributions from the PHA), and provide loans and annual contributions in accordance therewith.

7. Prepare contract forms for use by the tribal housing authority in contracting with mutual-help participants.

8. Approve each project from the standpoint of minimum health, safety, and occupancy standards, and consult with the BIA concerning standards of livability.

9. Provide initial training in development and management procedures for personnel of the tribal housing authority and the BIA who will be working on mutual-help projects.

10. Conduct periodic visits for inspection of the projects during construction to ensure that the PHA's requirements are being met (the tribal housing authority will be charged a fee for this service, as required by law, such fee to be included in the development cost of the project).

11. Prepare forms of resolutions to be adopted by the tribal housing authority which will establish operating policies, procedures, and guidelines for the authority's operations.

If the foregoing is in accord with your understanding, I would appreciate your signing this letter in the space indicated below and returning it to me for duplication, so that we may provide printed copies for use by personnel in both our agencies. Enclosed is a signed copy of this letter which you may retain as your copy of our agreement.

Sincerely yours,

Marie C. McGuire
Commissioner
Public Housing Administration

Agreed:

Philleo Nash
Commissioner
Bureau of Indian Affairs

Bureau of Indian Affairs
Branch of Plant Management

*Summary Report
Preliminary Indian Housing Surveys
California Reservations*

Preliminary Indian housing surveys were conducted during the period August through December 1963 by various representatives of the field technical office, in cooperation with representatives from the Sacramento area office and U.S. Public Health Service, Sacramento office, on 41 nonterminal California Indian reservations. Results of these surveys are attached in tabulated form.

The knowledge and experience obtained during these surveys, together with data and information collected in discussions with various officials encountered in California, were utilized to extend the survey estimated housing requirements to include the remaining 16 nonterminal reservations not visited by the joint team or FTO representatives. Results of this projected estimation are attached as a continuation of the tabulated survey information. Grand totals are shown which summarize the total preliminary estimated housing requirement for all nonterminal California reservations. These grand totals indicate 1,129 occupied housing units on the 57 listed reservations, 154 units (14 percent) of which were considered adequate; 654 units (58 percent) required renovations totaling \$2,250,000, at an average estimated cost of \$3,440 per unit; 321 units (28 percent) require replacement totaling \$3,350,000, at an average estimated cost of \$10,436 per unit, for an estimated grand total cost of \$5,600,000. The reservations on this tabulation are numbered in accordance with the numbering shown on U.S. Public Health Service map "Nonterminal California Reservations," copy of which was obtained at the Sacramento area office during the week 25/31 August. Reservations not listed were reported by area and/or PHS representatives to be presently vacant or unoccupied.

Although the above quoted estimated grand total cost is for a statewide housing program and includes all 57 listed nonterminal California reservations, sufficient evidence and collected data is available to indicate that an "all-inclusive" program is not entirely justified; is not believed to be equitable; and probably would not be locally expedient or well received. Some factors which should be considered in the final evaluation and formulation of a proposed program are:

- a. Tribal financial resources and reserves;
- b. average age of tribal groups;
- c. ratios of unemployable persons to available labor force within tribal groups;
- d. work opportunities within the commutation zone;
- e. average yearly employment of reservation residents;
- f. relative integration of reservation work force into local business activities and employment opportunities;

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g. relation of reservation residents average yearly per capita income to local community or county average yearly per capita income;

h. housing previously furnished by others to tribal elements; and;

i. present relative maintenance status of these housing units.

Other applicable factors will be evident to area officials during the final formulation of an acceptable recommended program and the preparation of suitable justification. It is believed, however, from available information, the listed nonterminal reservations can be divided into four (4) categories:

- (1) Program recommended
- (2) Program of doubtful equitableness
- (3) Program not recommended
- (4) Unknown

The majority of the 16 listed reservations, not visited by FTO representatives, must of necessity be placed in the "unknown" category and recommendations should be made by area officials. The 4 categories are separately listed below:

Category 1—(Recommended)

Reservation	Estimated total cost for program
Alturas.....	\$51,000
Cedarville.....	63,000
Fort Bidwell.....	47,500
Lookout.....	9,000
XL Ranch.....	22,000
Big Bend (Henderson).....	18,000
Roaring Creek.....	9,700
Susanville.....	27,000
Grindstone Creek.....	31,500
Enterprise.....	1,500
Colusa (Cahil Dehe).....	44,000
Fort Independence.....	71,900
Santa Rosa (Kings County).....	189,000
San Manuel.....	39,500
Cahuilla.....	46,300
Morongo.....	254,200
Pechanga.....	36,000
Santa Rosa (Riverside County).....	17,000
Torres-Martinez.....	97,000
Soboba.....	568,000
Campo.....	91,300
Inaja.....	31,500
La Jolla.....	68,200
Los Coyotes.....	36,400
Manzanita.....	22,400
Mesa Grande.....	121,400
Pala.....	450,900
Pauma-Yuima.....	40,700
Rincon.....	170,500
Santa Ysabel.....	196,600
Sycuan.....	47,800
Sulphur Bank.....	30,000
Dry Creek.....	25,000
Rumsey.....	6,000
Shingle Springs.....	6,000
Jackson.....	18,000
Sheep Ranch.....	13,000
37 reservations.....	\$3,018,800

It is considered that programs on the above listed reservations can be readily justified.

Category 2—(Doubtful)

Reservation	Estimated total cost for program
Tuolumne.....	\$37,500
Big Pine.....	47,300
Lone Pine.....	83,500
Barona Ranch.....	90,400
San Pasqual.....	37,200
Viejas (Baron Long).....	116,800
6 reservations.....	\$412,700

The principal reasons why housing programs on these reservations are considered of doubtful nature are as follows:

Tuolumne:

The resident families appear to be well integrated into the local community; apparently are economically stable; and, homes are about average for those observed in the immediate vicinity in this upland area of the Sierra.

Big Pine:

This reservation settlement is adjacent to the town of Big Pine and occupied housing units correspond comparatively to the lower half of the apparent community level. However, 6 of the 10 houses surveyed were substantial-type relocation structures requiring general maintenance repairs, averaging \$1,533 per unit, cost of which would normally be expected to be provided by the owners in any average community. Two of the four houses considered substandard and listed for replacement are occupied by families reportedly possessing sufficient financial resources to provide adequate quarters under their own initiative without assistance. The two exceptions were substandard replaceable units, apparently occupied by possible relief cases, where programmed assistance could be readily justified.

Lone Pine:

This reservation settlement is contiguous with the town of Long Pine and occupied housing units correspond to the apparent median community level. Twenty-one of the surveyed structures were substantial-type relocation units, 14 of which could be restored to original (or higher) condition at an average estimated cost of \$1,270 per unit and 7 were in a badly misused condition which would require an estimated \$3,660 per unit to restore original condition. Five units were essentially substantial structures which would necessitate an estimated renovation expenditure of \$3,620 per unit to become equal to the average community level. All family groups in the above units appeared to be well integrated into the local economy, not destitute or unable to provide adequate facilities for themselves. The remaining two units were substandard replaceable rough frame shacks, occupied by apparent relief cases, where programmed assistance could be readily justified.

Barona Ranch:

This reservation is located in a progressive area northeasterly of San Diego where many suburban homes and estates are under development. The average age of residents is well below middle life, most are employable and generally are employed as skilled labor in the construction industry or as skilled labor on local ranches. It is also indicated the average annual family income of residents compares very favorably to the pattern for the United States. Sixty-eight percent of the occupied houses were constructed of concrete as relocation housing units in the middle or late 30's; however, it is presently estimated renovation costs will average \$3,616 per unit to restore original condition.

San Pasqual:

This reservation tract is located in a rapidly growing district northeasterly of Escondido where suburban homes and estates are under development. Tribal residents are well integrated into the community activities and are generally employed in local industries or construction activities with fair average incomes. The nine houses occupied and surveyed were all of frame construction and essentially modern; however, to place these units on a community level comparable to those in the immediate vicinity will require an average estimated renovation cost of approximately \$4,150 per unit.

Viejas (Baron Long):

This reservation tract is located in a valley area easterly from El Cajon. Residents are generally employed as semiskilled or common laborers in local construction or ranching activities. Of the 34 houses presently occupied and surveyed, 25 were relocation frame structures of substantial modern type constructed in the middle 30's, and 3 were original ranch dwellings. The majority have been badly misused and not maintained. Renovation costs on these units are estimated to average \$3,200 per unit to restore original conditions. Average estimated renovation cost on the remaining six units surveyed, most of which are basically semipermanent structures, is \$4,200 per unit.

Category 3—(Program Not Recommended)

Reservation	Estimated total cost for program
Hoopa Valley.....	\$500,000
Hoopa Extension (Klamath Strip).....	145,000
Bishop.....	473,500
Cabazon.....	4,400
Agua Caliente (Palm Springs).....	10,000
5 reservations.....	\$1,132,900

The principal reasons why housing programs on these reservations are not recommended are as follows:

Hoopa Valley and Hoopa Extension (Klamath Strip):

Statistical information on file in the Hoopa area field office records and discussions with responsible local personnel disclosed Hoopa Valley to be a high

employment and high per capita income area. It is located in the center of Humboldt County, in the heart of the largest sustained yield forest location in northern California. Hoopa Village is populated in near equal proportions of Indians living on trust land, Indians living on fee land and caucasians living on owned or leased land. All derive their principal income from the timber industry, are thoroughly integrated, receive equal employment opportunities and identical wages for like work in trades, either in the forests or in the four large mills located in the valley. Employment varies with seasonal conditions, but averages from 9 to 11 months per year, dependent upon yearly rainfall. Labor rates are generally the highest paid in northern California and varies from \$2.30 per hour for common labor to \$4.76 per hour for operator (generally). An economic study prepared for the Hoopa Valley Business Council by Andrew H. Trice, Ph.D., in September 1962, states that the 1960 per capita income in Humboldt County was about \$2,465. He estimates income per person in the Hoopa area to be about 90 percent of the county average and that people of Indian blood appear to earn at essentially the same rate as non-Indians. The chief resource of the area is timber and most workers in the county regardless of racial origin are employed in the forests or forest products industries.

Tribal income from sustained yield management of nonallotted reservation forest lands kept in community ownership are yielding income exceeding one million dollars per year. A portion of this income is distributed semiannually to Hoopa Valley tribal members under the tribal financial plan. The semiannual timber income to be distributed to the 1,132 people presently on tribal rolls in December 1963 was reported to be \$622.50 per person. A like amount will be paid in April 1964. A tribal reserve of one million dollars is maintained on deposit under the present financial plan.

An additional factor which should be considered in formulating any housing improvement program in Humboldt County is the proposed water development plan for the Trinity-Lower Klamath Rivers. This water development and utilization plan, proposed jointly by the Bureau of Reclamation-California Water Resources Board, would ultimately develop the entire Trinity River and Lower Klamath Rivers with a series of high impounding dams for retention and diversion to southern California of all excess runoff from these watersheds. The proposal calls for total completion within 25 years and reported tentative dam sites would inundate all habitable land in Hoopa Valley and Hoopa extension.

It is evident from the above generalized outline of local conditions that a housing program at this location would be extremely difficult to justify. The average housing condition of Indians and non-Indians in this composite integrated community are essentially indistinguishable and appear to be typical for a county community of this forest industry country. Recommendation and execution of any housing improvement project at Hoopa Valley and Hoopa extension (Klamath strip) should be only on an extreme

welfare or hardship basis; however, a tribal sponsored and financed self-help program would be advantageous and advisable.

Bishop:

This reservation settlement is virtually surrounded by the original town and its unincorporated outlying portions of recent development. A major county highway, leading to two westerly very recent housing developments, bisects the reservation with approximately one-third of the settlement area situated on the south and two-thirds situated on the north side of this highway. US Highway 395 traverses the northerly reservation boundary.

Comparison of housing in the reservation settlement with the original town and its older outlying sections, bordering the reservation, gives a very favorable impression of equality, except for 27 rough frame shacks which could and should be removed and replaced under a tribal self-help development program.

The housing at this location is generally superior to that encountered on other California reservations. Statistically, 30 percent were classed as entirely adequate, 53 percent as subject to renovation, and 17 percent as replaceable units. This percentage shows better than average habitable condition in comparison with the general average throughout California. Eighty-eight of the 161 houses surveyed were substantial type relocation units, 67 constructed of masonry, and 21 of frame and redwood shingles on concrete slab foundation. Thirty-three masonry constructed units were in excellent repair and considered adequate, 34 were in need of repairs and would require an average estimated expenditure of \$2,930 per unit to restore original condition. All 21 of the frame-shingle units were classed for renovation due to their not having inside bathrooms and small size. The average renovation cost to provide bathroom, restore original condition and/or provide additional living space for large families was estimated at \$3,340 per unit. Fifteen new or recently constructed houses of very substantial type were all considered entirely adequate.

Cabazon:

This reservation is contiguous with the northeasterly city limits of Indio. It has one occupied dwelling, housing a family of three adults. Although this house is a fair farm-type structure, in comparison with homes in Indio, it would be considered substandard. Renovations to place it on the average Indio level are estimated to cost \$4,400; however, the owner stated that he was planning to relocate his homesite and build a new home in the near future. Additionally, he is apparently in a very good financial position, fully able to carry out the mentioned plan without assistance.

Agua Caliente (Palm Springs):

It is believed that with the financial background of this reservation any housing improvement program should be on a tribal financed self-help basis, unless welfare assistance cases are established.

Category 4—(Conditions Unknown to F.T.O.)
(Program recommendations to be made by area)

Reservation	Estimated total cost for program
Coast Indian Community (Resighini).....	\$65,000
Trinidad.....	50,000
Laytonville.....	90,000
Manchester.....	70,000
Point Arena.....	40,000
Round Valley.....	350,000
Stewart's Point.....	35,000
Tule River.....	185,600
Santa Ynez.....	150,000
9 reservations.....	\$1,035,600

Inasmuch as FTO representatives were not able to survey housing conditions on the above listed reservations, due to time limitation, it is believed knowledgeable area officials will be in a better position to make these recommendations during the formulation of a statewide housing improvement program.

Pictures of typical housing units at various locations are attached and identified by reservation. Photographic records were not attempted or obtained on all reservations. Tribal representatives requested that no pictures be taken at some locations.

Summary report assembled and prepared by:

W. V. Heusted,
Field Technical Office,
Branch of Plant Management,
Littleton, Colorado

January 6, 1964

May 19, 1964

Dr. William Baum, *Director*
Indian Health Area Office
Public Health Service
4110 North 16th Street
Phoenix, Arizona

Dear Dr. Baum:

Our commission has the responsibility of investigating problems of Indians residing in California. These may include, but are not limited to, problems resulting from federal termination. At the present we are conducting a survey of housing and sanitation of Indian living areas in the state.

Mr. Leonard Hill of the Sacramento area office, Bureau of Indian Affairs, stated in a recent letter that federal termination of some Indian rancherias has been deferred in order to retain for them eligibility to participate in a sanitation and waste disposal program under the division of Indian health of the Public Health Service.

We would appreciate your answers to the following questions:

What is the potential for California Indians under this program?

California Reservations Surveyed by F.T.O. and P.H.S. Joint Team

Number	Reservation	Dates surveyed (1963)	Surveyed by	Total houses surveyed	Total persons housed	Adequate housing	Renovate			Replace			Reservation total estimated cost
							Number of houses	Average estimated cost	Total estimated cost	Number of houses	Average estimated cost	Total estimated cost	
2	Alturas	Aug. 26-30	A.A.H.	7	(16)	--	3	\$5,000	\$15,000	4	\$9,000	\$36,000	\$51,000
3	Cedarville	Aug. 26-30	A.A.H.	7	(23)	--	--	--	--	7	9,000	63,000	63,000
4	Fort Bidwell	Aug. 26-30	A.A.H.	19	(80)	--	19	2,500	47,500	--	--	--	47,500
6	Lookout	Aug. 26-30	A.A.H.	1	(5)	--	--	--	--	1	9,000	9,000	9,000
7	XL Ranch	Aug. 26-30	A.A.H.	11	(30)	--	11	2,000	22,000	--	--	--	22,000
9	Hoopa Valley ¹	Dec. 9-14	W.V.H.	153	(580)	48	83	3,133	260,000	22	10,909	240,000	500,000
10	Hoopa Extension ¹	Dec. 12	W.V.H.	37	(138)	7	23	3,130	72,000	7	10,429	73,000	145,000
12	Big Bend (Henderson)	Aug. 26-30	A.A.H.	2	(7)	--	--	--	--	2	9,000	18,000	18,000
13	Roaring Creek	Aug. 26-30	A.A.H.	1	(6)	--	--	--	--	1	9,700	9,700	9,700
14	Susanville	Aug. 26-30	A.A.H.	9	(27)	--	9	3,000	27,000	--	--	--	27,000
16	Grindstone Creek	Aug. 26-30	A.A.H.	9	(24)	--	9	3,500	31,500	--	--	--	31,500
18	Enterprise	Aug. 26-30	A.A.H.	1	(4)	--	1	1,500	1,500	--	--	--	1,500
25	Colusa (Cachil Dehe)	Aug. 26-30	A.A.H.	11	(45)	--	10	3,500	35,000	1	9,000	9,000	44,000
34	Tuolumne	Nov. 13	W.V.H.	9	31	1	6	3,260	19,500	2	9,000	18,000	37,500
35	Big Pine	Nov. 20	W.V.H.	10	41	--	6	1,533	9,200	4	9,525	38,100	47,300
36	Bishop	Nov. 21-23	W.V.H.	161	591	48	86	2,566	220,700	27	9,363	252,800	473,500
37	Fort Independence	Nov. 20	W.V.H.	11	33	1	4	4,125	16,500	6	9,233	55,400	71,900
38	Lone Pine	Nov. 20	W.V.H.	28	113	--	26	2,519	65,500	2	9,000	18,000	83,500
39	Santa Rosa (Kings County)	Nov. 19	W.V.H.	20	97	--	1	4,000	4,000	19	9,737	185,000	189,000
43	San Manuel	Sep. 13	E.E.D.	5	24	--	2	3,250	6,500	3	11,000	33,000	39,500
47	Cabazon	Oct. 9	W.V.H.	1	3	--	1	4,400	4,400	--	--	--	4,400
48	Cahuilla*	Oct. 8	E.E.D. & W.V.H.	9	39	--	7½	4,453	33,400	1½	8,600	12,900	46,300
50	Morongo	Sep. 14	E.E.D.	45	171	6	24	3,300	79,200	15	11,700	175,000	254,200
51	Pechanga ²	Oct. 18	W.V.H.	4	(12)	--	--	--	--	4	9,000	36,000	36,000
53	Santa Rosa (Riverside County)	Oct. 8	E.E.D. & W.V.H.	3	13	--	3	5,667	17,000	--	--	--	17,000
54	Soboba ²	Sep. 16	E.E.D. & W.V.H.	60	(270)	4	23	4,913	113,000	33	13,787	455,000	568,000
55	Torres-Martinez	Oct. 12	W.V.H.	25	55	2	3	5,767	17,300	8	9,963	79,700	97,000
56	Barona Ranch	Oct. 9	W.V.H.	13	120	--	25	3,616	90,400	--	--	--	90,400
57	Campo	Oct. 15-16	W.V.H.	15	45	--	7	3,857	27,000	8	8,038	64,300	91,300
60	Inaja ²	Oct. 14	W.V.H.	3	(8)	--	--	--	--	3	10,500	31,500	31,500
62	La Jolla	Sep. 19	E.E.D.	14	25	--	11	3,660	39,200	3	9,680	29,000	68,200
64	Los Coyotes	Oct. 16	W.V.H.	10	41	--	9	3,044	27,400	1	9,000	9,000	36,400
65	Manzanita	Oct. 16	W.V.H.	4	14	--	2	3,600	7,200	2	7,600	15,200	22,400
66	Mesa Grande	Oct. 10-11	W.V.H.	14	44	--	6	6,417	38,500	8	10,363	82,900	121,400
68	Pala	Oct. 17-18	W.V.H.	78	296	--	45	3,124	140,600	33	9,403	310,300	450,900
69	Pauma-Yuima	Sep. 19	E.E.D.	11	35	--	9	2,380	21,400	2	9,650	19,300	40,700
70	Rincon	Sep. 17-19	E.E.D.	33	91	5	16	2,720	43,500	12	10,600	127,000	170,500
71	San Pasqual	Oct. 13	W.V.H.	9	32	--	9	4,133	37,200	2	--	--	37,200
72	Santa Ysabel*	Oct. 10-11	W.V.H.	24	113	--	11½	5,417	62,300	12½	10,744	134,300	196,600
73	Sycuan	Oct. 14-15	W.V.H.	5	170	--	--	--	--	5	9,500	47,800	47,800
74	Viejas (Baron Long)	Oct. 14-15	W.V.H.	34	120	--	34	3,435	116,800	--	--	--	116,800
Subtotals				926	3,479	122 (13%)	545 (59%)	\$3,246	\$1,769,200	259 (28%)	\$10,375	\$2,687,200	\$4,456,400

¹ Surveyed independently by F.T.O. Representative sounding, extended from logged information.

² Tribal elements did not cooperate. Tabulation from observance and logged information.

NOTE: Figures shown in parentheses are estimated.

* One-half of one house is masonry and restorable; remainder should be replaced.

California Reservations Surveyed by P.H.S. for Water and Sanitation Facilities

(Housing Requirements Estimated by F.T.O. From Experience Curve and Information Supplied by Others)

Number	Reservation	Dates surveyed (1963)	Surveyed by	Total houses surveyed	Total persons housed	Adequate housing	Renovate			Replace			Reservation total estimated cost
							Number of houses	Average estimated cost	Total estimated cost	Number of houses	Average estimated cost	Total estimated cost	
1	Coast Indian Community (Resighini)	--	--	13	--	3	6	\$3,833	\$23,000	4	\$10,500	\$42,000	\$65,000
11	Trinidad	--	--	13	--	5	5	3,700	18,500	3	10,500	31,500	50,000
20	Laytonville	--	--	11	--	--	5	5,520	27,800	6	10,400	62,400	90,000
21	Manchester	--	--	8	--	--	2	3,500	7,000	6	--	63,000	70,000
21A	Point Arena	--	--	15	--	4	11	3,636	40,000	--	--	--	40,000
22	Round Valley	--	--	60	--	10	35	5,349	187,200	15	--	162,800	350,000
24	Sulphur Bank	--	--	4	--	--	2	4,000	8,000	2	11,000	22,000	30,000
28	Dry Creek	--	--	3	--	--	1	4,000	4,000	2	10,500	21,000	25,000
29	Stewart's Point	--	--	10	--	--	10	3,500	35,000	--	--	--	35,000
30	Rumsey	--	--	1	--	--	1	8,000	8,000	--	--	--	8,000
31	Shingle Springs	--	--	1	--	--	1	8,000	8,000	--	--	--	8,000
32	Jackson	--	--	2	--	--	1	5,000	5,000	1	13,000	13,000	18,000
33	Sheep Ranch	--	--	1	--	--	1	--	--	1	13,000	13,000	13,000
41	Tule River	--	--	35	--	3	22	3,705	81,500	10	--	104,100	185,600
42	Santa Ynez	--	--	16	--	--	4	5,500	22,000	12	--	128,000	150,000
45	Agua Caliente (Palm Springs)	--	--	10	--	7	3	3,333	10,000	--	--	--	10,000
Subtotals				203	--	32 (16%)	109 (54%)	\$4,411	\$480,800	62 (30%)	\$10,690	\$662,800	\$1,143,600
Grand totals				1,129	--	154 (14%)	654 (58%)	\$3,440	\$2,250,000	321 (28%)	\$10,436	\$3,350,000	\$5,600,000

STATE ADVISORY COMMISSION ON INDIAN AFFAIRS

What does the law provide for?

What is the status of applications, if any, of California reservations?

What standards are followed in such matters?

Has your division made any surveys of conditions of sanitation and water systems or housing on any reservations or rancherias?

Please advise regarding your procedures, regulations, and status of any assessments of this problem made to date.

Very truly yours,

Thomas Weaver
Executive Secretary

May 28, 1964

Thomas Weaver, *Executive Secretary*
State Advisory Commission on Indian Affairs
Room 3023, State Building
1111 Jackson Street
Oakland, California 94607

Dear Mr. Weaver:

We appreciate this opportunity to answer your inquiry regarding the environmental sanitation status of California Indian groups. In 1959, the 86th Congress passed Public Law 86-121, generally referred to as the "Indian Sanitation Facilities Act." This act essentially authorizes the Surgeon General, in cooperation with Indian groups, to assist in the construction, improvement, and extension of essential sanitation facilities serving Indian families in Indian communities. To date, 13 Indian groups have been assisted in the provision of needed sanitation facilities.

A high priority has been given to those Indian groups that were included in Public Law 86-671, the Rancheria Termination Program for California Indians. In May 1963 it was found that 22 of these groups required assistance in terms of sanitation facilities. To date, two projects have been completed and eight are under construction. Please refer to the attached tabulation for a complete status report.

In addition, funds were made available to assist three nonterminal groups. A project has been completed at Tule River; one is nearly completed at

Hoopa Valley, and construction will start on a third at Fort Yuma this fall.

The funds authorized to assist California Indians through the current fiscal year amounted to over \$225,000. An estimated \$140,000 is required to provide assistance to the remaining Indians in the terminal group. In January 1964 a comprehensive environmental health survey of nonterminal Indian groups was made. This report revealed that approximately \$1,700,000 is needed in addition to the \$140,000 required for the terminal groups. We have enclosed a copy of this report, together with information on Public Law 86-121. If you have any further question, please contact us.

Sincerely yours,

W. S. Baum, M.D.
Indian Health Area Director

SUMMARY OF INDIAN RANCHERIAS INCLUDED IN TERMINATION ACT

No Assistance Needed

- | | |
|---------------------|-----------------------|
| 1. Alexander Valley | 8. Paskenta |
| 2. Buena Vista | 9. Potter Valley |
| 3. Cache Creek | 10. Redding |
| 4. Chicken Ranch | 11. Redwood Valley |
| 5. Lytton | 12. Ruffeys |
| 6. Mark West | 13. Strawberry Valley |
| 7. Mooretown | 14. Table Bluff |

No Assistance Requested

- | | |
|---------------------|-----------------|
| 1. Middleton | 4. Indian Ranch |
| 2. Montgomery Creek | 5. Nevada City |
| 3. Chico | |

Assistance Requested

- | | |
|-----------------|--------------------|
| 1. Big Sandy | 7. Picasune |
| 2. Blue Lake | 8. Quartz Valley |
| 3. Cold Springs | 9. Rohnerville |
| 4. Elk Valley | 10. Table Mountain |
| 5. Greenville | 11. Upper Lake |
| 6. North Fork | |

Projects Under Construction

- | | |
|----------------|------------------|
| 1. Smith River | 6. Hopland |
| 2. Big Valley | 7. Pinoleville |
| 3. Cloverdale | 8. Robinson |
| 4. Guidiville | 9. Scotts Valley |
| 5. Graton | |

Projects Completed

- | | |
|-----------|-----------|
| 1. Auburn | 2. Wilton |
|-----------|-----------|

CALIFORNIA INDIAN GROUPS
ENVIRONMENTAL SANITATION SURVEY

Prepared By:

D. D. Geller

and

R. P. Morfitt

U.S. Dept. of Health, Education, and Welfare
Public Health Service
Division of Indian Health
Phoenix Area Office
January 1964

INTRODUCTION

Authority

The responsibility for the health of the American Indian and Alaskan native was transferred by Congress from the United States Department of Interior, Bureau of Indian Affairs, to the United States Public Health Service in July 1955. The Public Health Service now provides a total program of curative and preventive health services for Indians. A major factor involving the health of the Indian is the environmental conditions under which they live. Many diseases such as typhoid fever, dysentery and various types of diarrhea are transmitted from one person to another through the fecal contamination of food and water largely due to the improper disposal of human waste, unsafe water, and the lack of an adequate water supply for personal hygiene.

The majority of the Indian beneficiary population lack the economic resources to bring about the necessary improvements in their home environment. In 1959 Congress enacted Public Law 86-121 which authorized the Surgeon General of the United States Public Health Service to construct, improve, extend or otherwise provide essential sanitation facilities for Indian homes and communities. This law further provided that the facilities so constructed would be planned and built in cooperation with the Indian people. Upon completion, the facilities become the responsibility of the Indian families or communities for continued operation and maintenance.

Present Program

The Indian people in California receive all of the health services available to California citizens regardless of the place of residence of the Indian family. Based on a system of Public Health Service health priorities, approximately 2,000 Indians residing on the Hoopa and Winterhaven Reservations are included in a comprehensive total health program of the United States Public Health Service. Prior to fiscal year 1961 it was interpreted that only this group of Indians were eligible for participation in the sanitation facilities construction program. This policy was clarified and broadened so that now all California reservations and groups eligible for Bureau of Indian Affairs services are considered eligible to apply for assistance under Public Law 86-121.

During the period fiscal year 1961 to 1964, sanitation facilities construction projects have either been constructed or are under construction for Indians in Hoopa, Tule River, Winterhaven and 12 small rancherias included in the Terminal Act of 1958 (72 Stat. 619).

Plan of Investigation

The plan of investigation for this study was based on two main objectives: (1) A field survey of each of the 75 nonterminal California reservations with an appraisal of the existing sanitation facilities and an estimate of sanitation facilities need. (2) To evaluate

and summarize the existing conditions on the 75 reservations and to develop information to be used in selecting priorities and developing methods of construction of future projects under Public Law 86-121.

The field investigative work was carried out by Daniel D. Geller, senior assistant sanitary engineer, United States Public Health Service, commencing on August 27, 1963, and completed on December 8, 1963. The summaries of condition on each reservation or community is included in the appendix of this report and grouped by counties.

SUMMARY

1. Field investigations were started on August 27, 1963, and completed on December 8 of the same year. These investigations were the basis of the total report.

2. The 75 California groups surveyed essentially included all California Indian groups excluding those named in the terminal legislation in Public Law 85-671.

3. Indian people in California receive all of the health services available to California citizens; however, there are no state health department programs which provide financial assistance in the correction of domestic water and excreta disposal problems.

4. At the time of the survey, it was estimated that approximately 5,500 Indian people, or 14 percent of the total California Indian population, were residing on the reservations surveyed. Eighteen of the areas within the study had no permanent Indian population and only six of the reservations or groups had a permanent population of over 200.

5. Existing sanitation facilities are not adequate.

38 percent of the people use potentially contaminated water supply.

48 percent of the people must haul their water.

73 percent of the families had unsatisfactory excreta disposal facilities.

6. Housing, as such, has not been included as a part of this report as the Bureau of Indian Affairs is in the process of making a comprehensive housing study of these same 75 reservation groups. However, as a general opinion, reservation Indian housing in California is considerably better than Indian housing in other portions of the Phoenix area, division of Indian health.

7. To provide adequate sanitation facilities for the Indians on the 75 reservations studied, \$1,700,000 are required, or an average cost per home of approximately \$1,240.

8. Over one-third of the occupied reservations have submitted formal request to the Public Health Service for assistance under Public Law 86-121.

9. As of February 1964 the total environmental health staff of the division of Indian health in the State of California consisted of one engineer and one sanitarian supplemented by temporary employees such as plumbers, construction foremen, equipment operators and laborers.

EXISTING DOMESTIC WATER

Types of Facilities

Because the California reservations are scattered over an 800-mile range and the communities vary from compact villages to scattered rural housing, the existing water supply facilities vary accordingly. Community systems serve approximately 46 percent of the Indian homes. Individual systems serve approximately 38 percent and the remaining 16 percent have no source of water at the homesite. Table 1 summarizes the various types of domestic water systems in service at the time of the survey. For analysis purposes a community system has been defined as any water supply serving more than five homes.

TABLE 1
Domestic Water Source by Types

Type of system	Protected		Unprotected	
	Number persons	Number homes	Number persons	Number homes
Individual				
Springs.....	197	50	167	39
Wells/hand pump.....	20	6	423	98
Wells/pressure systems.....	816	189	370	84
Surface supplies.....	--	--	246	66
On community systems.....	2,334	616	72	21
No supply.....	--	--	733	217
Total.....	3,367	861	2,011	525

Table 1 illustrates the number of homes utilizing water which is potentially contaminated. In defining a potentially contaminated water supply, it was determined that any home supplied with water that was not either adequately treated or from an adequately protected source would fall in this category. In addition, all homes which do not have water immediately available on the premises were assumed to be using water that was potentially contaminated either due to hauling from a contaminated source or the failure to provide adequate protection of the water in transit and storage.

Availability

The availability of water in sufficient quantity for good personal hygiene may be the major significant factor in the control and prevention of sickness associated with environmental problems. Table 2 illustrates the existing conditions of available water in the study group. Fifty-two percent of the homes surveyed have safe running water within the home. The remaining families either have unsafe running water or haul their water from a distant source, an outside yard hydrant within the community or from a hand pump within the yard.

Community Systems

About 76 percent of all the community water systems were constructed by the Bureau of Indian Affairs between 1910 and 1962. These community sys-

tems prior to 1962 received some degree of consultive help and maintenance and repair from the Bureau of Indian Affairs. It has been the policy of the Bureau of Indian Affairs to encourage, where possible, the assumption of maintenance and operational responsibilities by the Indian group served. Table 2 summarizes the conditions of these existing Bureau of Indian Affairs systems. At the time of the survey an attempt was made to evaluate the adequacy of these systems to meet the present and future needs. To facilitate evaluation, the system was divided into the following components: source, quality pumping equipment, storage and distribution. These components are shown in Table 2 together with summary of adequacy.

TABLE 2
Condition of Community Supplies
(B.I.A. Built)

	Adequate	Renovation		Replacement	
		Minor	Major	Partial	Complete
Source.....	14	1	4	--	3
Quality (health).....	19	--	--	--	3
Storage.....	10	2	3	--	7
Distribution.....	8	5	--	5	4

EXISTING EXCRETA DISPOSAL FACILITIES

A major factor second only to the availability of domestic water in good quality involving the health of individuals is the proper disposal of human waste. Less than 47 percent of the families in the surveyed group had inside bathroom facilities and of those only 26 percent had adequate water-carried sewage disposal facilities. Over 53 percent of the families still utilized privies. These structures provided little more than privacy. None provided adequate sanitation protection.

Table 3 summarizes the types and adequacy of the excreta disposal facilities at the time of this survey.

TABLE 3
Excreta Disposal Facilities

Type	Inadequate		Satisfactory	
	Number persons	Number homes	Number persons	Number homes
Privies.....	2,758	741	--	--
Water carried sewage				
Individual.....	977	251	1,510	362
Community.....	113	27	20	5
Total.....	3,848	1,019	1,530	367

HOUSING

Basic housing is a contributing factor to the health status of the Indian people. Adequate space, protection from the elements and a hazard-free environment can contribute to the reduction of home accidents and

respiratory diseases. The Bureau of Indian Affairs, branch of plant management, made a housing study in conjunction with the environmental sanitation survey. Their report will provide a comprehensive inventory of housing conditions and need.

Housing, as such, has not been included as a part of this report. However, as a general opinion, Indian housing in California is considerably better than Indian housing in the Arizona area of the division of Indian health, Phoenix area. Electricity was available to over 80 percent of the Indian homes surveyed.

ENVIRONMENTAL SANITATION REQUIREMENTS

Domestic Water

To provide safe water in adequate quantity to meet the health needs of the California Indians, it will be necessary to construct or renovate both community and individual water systems. Where the density of the population permits, community systems have been proposed. For the isolated, scattered Indian families, individual water systems consisting of the development of wells, springs or treated surface supplies have been recommended. Table 4 summarizes the types of facilities needed.

TABLE 4
Types of Water Facilities Required

Type	Number	
	New	Renovated
Individual		
Wells.....	165	39
Springs.....	37	11
Surface treated.....	14	--
Community systems.....	17	18

On Premise Facilities

Minimal facilities should include a means for supplying running water inside the dwelling including a kitchen sink unit. The types of housing generally encountered in California and the degree of acculturation of the Indian family would indicate the future installation of modern toilet facilities is highly apparent. Inside toilet facilities should be provided in over 95 percent of the dwellings instead of sanitary privies and where the beneficiary provides at its own expense the housing space for the toilet. Over 700 new kitchen sink units and over 810 new water closets are needed. The remaining homes have existing inside facilities which should be renovated if needed.

Excreta and Sewage Disposal

In general the Indian homes on the surveyed reservations are too scattered to provide community sewage systems. Community systems for Point Arena, Pala and Susanville have been recommended. These would serve over 80 homes. To serve the remaining scattered Indian homes, all of which would eventually have water under pressure; individual septic tanks and soil absorption fields are required.

Table 5 summarizes the numbers and types of excreta and sewage disposal facilities required.

It is noted that no sanitary privies have been recommended due to the type of housing, acculturation, and needs to conform to county and California state standards.

TABLE 5
Excreta Disposal Facilities Required

Type	Number homes
New septic tank units.....	797
Renovation of absorption fields.....	170
New community system.....	84
Total.....	1,051

ESTIMATED COST

Over 1.7 million dollars are required to provide adequate sanitation facilities for the Indians on the 75 reservations studied, this estimate includes the \$165,000 to provide adequate facilities for Fort Yuma Reservation. The Fort Yuma moneys have already been authorized for construction in fiscal year 1964.

The cost estimate is based upon experiences of the Phoenix area office on the construction of projects of similar type and is related to 1963 construction costs. The average cost per home is approximately \$1,240. This cost per home is higher than the \$1,000 cost average per home in the total Phoenix area based on projects completed between fiscal year 1961 and fiscal year 1963. The relatively high cost is in part due to three factors:

1. The scattered isolated location of the projects.
2. The difficulty of finding water in the isolated Indian communities.
3. Construction costs in California appear to be higher than in the State of Arizona.

The cost estimates excluded the value of the anticipated Indian contributed labor. In all cases this will include a minimum of on-premise labor. In addition, such reservations as Pala, Morongo, Ft. Bidwell, Barona, Santa Rosa (Riverside), Torres-Martinez, Viejas, Round Valley and Trinidad have sufficient resources to provide some nominal cash contribution towards the cost of the project.

Table 6 illustrates the cost of project by counties.

METHOD OF CONDUCT

Public Law 86-121, the Indian Sanitation Facilities Act, provides the authority whereby the Public Health Service can take corrective action to meet the environmental sanitation problems on these California Indian groups. It is the policy of the Public Health Service with respect to the construction of Indian sanitation facilities to:

1. Limit construction of Indian sanitation facilities projects to request from Indian beneficiaries of the Public Health Service.

2. Encourage participation of state and local health agencies in joint planning.
3. Encourage and emphasize participation of Indian beneficiaries in project development and construction.
4. Promote the assumption of responsibility for the operation or maintenance of completed facilities by the Indians and/or adjacent political subdivisions of public authority.

As of January 1964, 22 reservations in the study group have submitted formal project requests for assistance under Public Law 86-121 in the correction of sanitation deficiencies on their reservations. This represents over one-third of the occupied Indian reservations covered in the report. In addition to the formal requests, other communities have verbally requested assistance.

Health Departments

The California reservations Indians receive normal environmental sanitation services from the state and local health departments. However, there are no state or local health department programs which provide financial assistance in the correction of water and waste disposal problems. Both the state and the many local health departments serving the Indian reservations have expressed an interest in the Indian sanitation problem and a willingness to provide normal services of plan, review, consultation and instructions. All Indian sanitation facilities construction activities carried out in California will be so designed as to meet specific state and local sanitation code requirements applicable to the county in which the reservation is located.

As construction projects are developed and implemented, local health departments will be encouraged to provide greater followup assistance to reservations to include training of operators, surveillance of completed water systems and normal sanitation consultive services to the reservation population.

Bureau of Indian Affairs

The Public Health Service will continue to consult with the Bureau of Indian Affairs on the long-range planning to meet the sanitation needs for the Indian groups and to coordinate the Public Health Service sanitation construction activities with the long-range plans of the Bureau of Indian Affairs. Within the study group there are over 20 community water systems built by the Bureau of Indian Affairs and are presently on the property rolls of that agency. As Public Health Service sanitation facilities projects are authorized for Indian communities presently served by these water systems, the Public Health Service will request the Bureau of Indian Affairs for a transfer of these facilities to the Public Health Service for ultimate transfer to the Indian community served. Public Health Service will continue to encourage the Indian communities to assume full maintenance and operation responsibilities of the domestic water system regardless of the legal ownership of the facility.

Indian Participation

It is highly desirable to develop maximum Indian participation in any sanitation facilities construction project undertaken. Through their participation in planning and construction, the Indian community can develop skills which will be useful in their utilization, operational and maintenance responsibilities associated with the completed project.

The following items delineate the type of participation anticipated from those Indian communities being considered for sanitation facilities construction projects.

1. Designate responsibility within the tribal organization to plan and negotiate projects with the Public Health Service.
2. Administer through tribal body, Indian project responsibility including individual Indian participation on the projects.
3. Furnish, as required, labor to assist on the construction projects.
4. Install and construct, as required, on-premise pipelines and household sanitation fixtures as required.
5. Contribute financial support within ability of group to participate.
6. Operate and maintain completed facilities.

Public Health Service Staffing

As of February 1, 1964, the environmental health staff, division of Indian health, within the State of California, consisted of one engineer and one sanitarian. This staff has been supplemented by temporary type personnel such as plumbers, construction foremen, equipment operators, etc., to assist in the carrying out of the sanitation facilities construction activities on California terminal reservations.

The California Indian groups within the study have had in the various times in the past, federal assistance in the construction of water and other sanitation facilities, as well as programs to aid in better housing. Many of these programs essentially were geared to the provision of the physical facility. The full understanding of the Indian people as to the use of the facility and responsibility for continued maintenance and operation was not always provided, either due to lack of authority, personnel or money. For a project to be a success and to have lasting benefits, it would appear as paramount importance to have a well informed and motivated Indian community. The sanitation facilities construction activities as recommended in the report must be in conjunction with a well-planned motivation, information and education and training activity.

The environmental sanitation California staff is inadequate to develop and carry out this total program. A project engineer is essentially required for approximately every \$100,000 of federal funds. Considering the Indian contribution of labor, this ratio is equivalent to one engineer to every \$200,000 of construction project costs. To carry out the motivational program will require the services of a community specialist

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working for the project engineer. One community specialist to \$200,000 to \$300,000 of federal project funds should provide adequate coverage of this phase of the program.

PROJECT PRIORITY

As it is not anticipated that the total construction moneys would be available in any one fiscal year, it will therefore be necessary to establish project priorities. In establishing project priorities, the following factors will be considered:

1. Urgency of health needs of Indian population to be served.
2. Feasibility of project from an engineering standpoint.
3. Ability and willingness of the Indian group to assume responsibility for maintenance and operation of sanitation facilities to be provided.
4. Ability and willingness of Indian group to participate in project by specific contribution such as labor, materials, services or funds.

The urgency of the health need will be evaluated from this study in terms of existing sanitation facilities. Therefore, a community having no safe water or the community having a major sewage disposal problem, will be considered to have a higher health need. In considering a project from an economic standpoint, the grouping of communities within a geographic area becomes a significant factor in order to cut down extensive construction overhead costs associated with small projects scattered from one end of California to the other.

At this time it is difficult to evaluate the ability and willingness of the individual Indian communities in California to participate in a project. One factor used is the receipt of the formal request for a project from the Indian group together with verbal discussions with Indian leaders. All these factors will be considered in the development of recommendations for budgeting the projects for construction.

During fiscal years 1962 through 1964 approximately \$150,000 per year was made available for sanitation facilities construction projects in California. If this rate of appropriations continue, all terminal reservation projects in California should be completed by fiscal year 1965. With the completion of this group of projects, funds should be programmed for the projects listed in this report.

An increase in appropriation to \$300,000 annually would be required in order to complete the indicated work by fiscal year 1970.

Table 6 is a summary of location and estimated cost of projects recommended for construction.

TABLE 6
Summary of Projects and Estimated Costs

County	Project locations	Estimated costs
Amador.....	Jackson.....	*
Butte.....	Enterprise.....	*
Calaveras.....	Sheep Ranch.....	*
Colusa.....	Colusa.....	\$10,000
Del Norte.....	Coast Indian Community.....	28,000
El Dorado.....	Shingle Springs.....	*
Glenn.....	Grindstone Creek.....	*
Humboldt.....	Hoop Extension, Trinidad.....	128,000
Inyo.....	Big Pine, Bishop, Fort Independence, Lone Pine.....	200,000
Kings.....	Santa Rosa.....	20,000
Lake.....	Sulphur Bank.....	10,000
Lassen.....	Susanville.....	*
Mendocino.....	Laytonville, Manchester, Point Arena, Round Valley.....	173,000
Modoc.....	Alturas, Cedarville, Fort Bidwell, Lookout, XL Ranch.....	64,000
Riverside.....	Cabazon, Cahuilla, Morongo, Pechanga, Santa Rosa, Soboba, Torres-Martinez.....	224,000
San Bernardino.....	San Manuel.....	*
San Diego.....	Barona, Campo, Inaja, La Jolla, Los Coyotes, Manzanita, Mesa Grande, Pauma Yuma, Rincon, San Pasqual, Santa Ysabel, Sycuan, Viejas.....	343,500
Santa Barbara.....	Santa Ynez, Pala.....	204,000
Shasta.....	Big Bend, Roaring Creek.....	*
Sonoma.....	Dry Creek, Stewart's Point.....	46,000
Tuolumne.....	Tuolumne.....	18,000
Yolo.....	Rumsey.....	*

* Less than \$10,000. Total cost of * projects estimated at \$94,500.