Plaintiffs' Allegation:

"Defendant failed to develop a comprehensive management plan for the reservation as a whole, and the Quinault Unit in particular, and, since approximately 1945 and through at least 1965, has encouraged Indians to sell their land with the result that most of the reservation land has not been taken out of trust status." (Quinault Indian Nation of Contentions of Facts and Law No. 17, April 26, 1976).

Also see the summary of the Affidavit of Land Issues.

Note: The connection between a failure to develop a comprehensive management plan and the passing of land in the Quinault Unit out of trust status is tenuous at best. Which came first, the chicken or the egg?

Overview of Record:

Apparently the only attempt to write down a comprehensive forest management plan for the Quinault Reservation was in 1944 by Ken Hadley. VIII.A54.1. This in itself does not indicate that the Quinault forests previous to that time had been managed without consideration of the long-range and overall effect of the forestry program policies. On the contrary, the forest officers reports prepared for the proposed sales of the Taholah, Crane Creek and Quinault units contain considerable discussion of the management and future cutting programs of the entire reservation. III.46.1, TIA.48.1, TIR.50.1. There are early reports with similar considerations. IIA.8.3, IIA.4.6. Letters to allottees in the 1940's indicate the existence of some long-range cutting program. IA.4.3.6, IA.4.3.8, IA.4.4.9.
The Quinault Reservation was never made a sustained yield unit as authorized under the Act of March 29, 1944 (58 Stat. 132), but, rather, the timber sales were made in accord with 25 CFR 61.13-16 (now 141.13-16). Undoubtedly, one reason for this was the necessity for consent of the Indians before such a unit could be established. At that period of time the Quinault Tribe and allottees were not well disposed toward sustained yield requirements since this meant that a number of allottees and members of the tribe would probably not realize any income from their timber during their lifetimes. However, it is evident in the forest officers reports that much consideration was given to the sustained yield requirements.

The 1954 management plan was never officially approved, but Superintendent Ringeey stated that it had been followed as much as practicable until circumstances made it obsolete. Consideration was given to revising it, but it was decided the constantly changing ownership status of the land made this an impractical task.

The primary obstacle to the development of a management plan for the reservation has been the extremely diversified ownership of the lands. Because of the nature of this ownership, constant pressure has been exerted to dispose of the timber irrespective of forestry, community or industrial considerations. See and the document summaries of the desire of the allottees for immediate sale found under the Timing of the Sale Issue. Also, there is the problem of the authority to expend
Federal funds on private lands for reforestation. See VIIIA54.1 and also Reforestation issue. There is also the inability to offer blocks of timber with the assurance of access. The incipient nature of fee patent land among trust lands also makes it very difficult to practice selective block cutting. These problems have been particularly acute in the Queets unit. It had been planned to offer this unit for sale in 1956 or 1957 upon completion of the Boulder Creek and Quinault Lake units. VIIIA54.1, IQ55.1. This plan, however, was apparently abandoned by 1958. IA58.6. The potential difficulties for forest management in the Queets unit were anticipated at that time, and it was recognized that it was rapidly becoming an impossible situation. IA58.2 and IIA58.3.

(Note: Most likely, with the criticisms of the sale of the large units and the lack of any definite plan for selling the Queets unit, and with the mood of Congress for termination and the great number of requests for fee patents and supervised sales within the unit, the BIA gave up the resistance.)

As an attempt to help solve the management problems on the reservation, a plan was suggested by Libby in 1962 to convert ownership of these lands to a single owner, either the United States or the tribe. VIIIA62.1. The Area Director agreed in principle with this plan, and transmitted it to the Washington office. IIA62.3. The latter promised consideration of the proposal, but apparently were not impressed with the uniqueness of the Quinault problem. IIA62.1 and IIA64.3. Ten years later the Pierovich study group, on behalf of the Quinault Tribe, made basically
the same suggestions as Libby to convert to a single ownership.
IIA72.6.

**Areas for Further Research**

1. Did the BJA ever make a "forest working plan" for the Quinault Reservation in compliance with the objectives of the General Forest Regulations? VIIA36.1.

2. Obtain the 1931 publication by Lee Muck. See IIA38.3.

3. What are the forest management plans referred to by Supt. Lavatta in letters to allottees? IA43.6, IA43.8 and IA44.9.

4. What was the impetus for the budget estimate for a detailed management plan in 1947? IIA47.2.

5. Were the surveys needed for long-range management plans requested in 1949 ever conducted? IA49.15.

6. What were the plans being considered for the Queets unit in 1955? IQ55.1.

7. Why was no action taken on the 1954 management plan written by Ken Hadley? IA58.6.

8. Was the program for more intensive management of Indian forests started by Harold Weaver around 1960 ever considered for the Quinault Reservation? IIA60.1.

9. Obtain the memorandum by Mr. Bruce referred to in IIA64.3.

10. What are the Federal regulatory problems in regard to a land acquisition program referred to in IIA72.4?

11. Were any conclusions made from a study of the land management cooperative system by the forestry branch referred to in IIA72.4?
IA35.11 - Letter from Supt. N. O. Nicholson to Secretary-Treasurer P. W. Mathiss of the Olympic Peninsula Development League, 6/19/35.

- Acknowledges request for a plan of sustained yield for timber on the Quinault Reservation.
- States regular personnel have not had time to work up a plan.
- Understands that the Forest Service has spent much time in working out specific and general details covering a sustained yield cutting program for the entire Olympic Peninsula and it is possible they have data for the Quinault Reservation.

VIIA36.1 - General forest regulations, 4/23/36.

- States the objectives sought in the management of Indian forests.
- Generally the objectives are centered round the perpetuation of the forest and a policy of sustained yield. These policies were to be given practical expression through the medium of forest working plans for all reservations of major importance. Such working plans were to contain a statement of how the policies of the Indian Service are to be applied on a given Indian forest with a definite program of action for a specified period in the future. These plans were to give the necessary basis for consistent action over the long period necessary to grow timber.

IA39.14 - (a) Letter from Director of Forests Lee Muck to Supt. N. O. Nicholson, 10/15/38.

- Refers to Nicholson's letter of 10/7 discussing forest policy for
the Quinault Reservation and requesting advice on a suggestion for a conference with Quinault Indians to formulate a forest policy.

- States that the policy of selective logging on the Quinault Reservation is fully established, and that all future sales will not permit destructive methods and that a policy of light selection cutting must prevail. In view of the fact that the Indian Reorganization Act provides for sustained yield forest management, the Department is in a position which will not permit compromising itself regarding the practice of sound forestry.

- Doubts, therefore, that under the circumstances it would be advisable to attempt to reconcile the position taken by the Indians on the question of selection cutting methods.

(b) Letter from Supt. N. O. Nicholson to Commissioner of Indian Affairs, 2/11/39.

- Refers to (a).

- Disagrees with statement in (a) that the practice of selective logging on the Quinault Reservation is fully established and points out that only 660 acres have been selectively logged, whereas 30,000 acres have been clear-cut.

- Refers to letter of 9/10/37 which presented the position of the Indians on the cutting policies and in going over the general forestry regulations, states he fails to see that the policies proposed by the Indians are in conflict with the said regulations.

- States the Indians feel strongly that the timber values in their individual allotments should not be sacrificed in experiments involving selective logging or other comparatively untried methods.
Refers to the wind throw problem and refers to the alternative policy of cutting alternate settings.

States opinion that such forest policy as applied on the Quinault Reservation should recognize fully that the reservation is entirely allotted and that the ownership is individual rather than tribal.


Concerns sustained yield policy and its application to the Quinault Indian Reservation.

Refers to regulations, VIIA36.1.

Refers to Indian Service publication entitled "The Status of Indian Forests in Relation to a National Program of Sustained Yield," written in 1931 by Lee Huck. In that publication, Huck proposed a cut of 70 million per year for 40 years for the Quinault Reservation. It appears that the proposal is conservative since the growth figured to be 122.5 million feet per year.

Discusses the problems of small sales and proposes that one big sale of the timber in the northwest half of the reservation appears to be the best solution unless the Government will buy up the timber. Fitting the need for the individual owner to the present regulations, suggests:

(a) avoid logging stands of hemlock or white fir until there is good consumer demand and price;

(b) that other types of stands log at least 50% of the volume; and

(c) establish a minimum of 50 million and a maximum of 100 million per year cut.
- If the regulations could be modified to protect the individual Indian's interest, suggests:

(a) log 20% to 50% of old growth hemlock and white fir and nothing in younger stands of these species;
(b) in other types, log up to 75% of the volume; and
(c) increase the average per year cut to not less than 100 million feet.

IA40.6 -

(a) Letter from Acting Asst. Secretary W. C. Mendenhall to the Attorney General, 10/5/40.

- Refers to (b) and the case of Harvey Eastman v. United States.
- States that further search has failed to disclose that Congress has formally recognized or ratified the General Timber Sale Regulations or the General Forest Regulations.
- However, the purposes sought in the General Forest Regulations can be found on pp. 198-199 of the Annual Report of the Secretary of the Interior for the year ending June 30, 1936.
- Also, Senate Document No. 12 of the 73d Congress, 1st Sess., entitled "A National Plan for American Forestry," more commonly known as the Copeland Report, on pp. 607-632, deals with Indian forests.

(b) Letter from Asst. Secretary Oscar Chapman to The Attorney General, 8/13/40.

- Concerns case of Harvey Eastman v. United States.
- States the first regulations for management of forests on tribal and allotted Indian lands were approved by the Secretary of the Interior on
June 29, 1911. The last revision was approved on May 18, 1936.

IA43.6 - Letter from Supt. George LaVatta to Allottee Jonah Cole, 8/21/43.

- Refers to request for sale of timber on allotment.

- States in the best interests of all allottees, it has been necessary to adopt a general plan of cutting for the reservation and the establishment of logging units on which sale/timber as a whole can best be accomplished.

- Sale of timber from separate individual allotments upset the established general cutting plan of the reservation. In view of these circumstances, they cannot approve the sale of the timber on his allotment, but assures him that it will be part of a unit which will later be sold within the general cutting plan of the reservation.

IA43.8 - Letter from Supt. George LaVatta to Allottee J. W. McClellan, 12/15/43.

- States that in complying with the forest management plans, sale of timber on the reservation is approved only in definite timber units, conforming with the long-range cutting program.

- Therefore, the indiscriminate cutting of timber from individual allotments would not be approved.

IA44.9 - Letter from Supt. George LaVatta to George Welsh, 1/26/44.

- Refers to letter on behalf of Allottee Jasper Butler.

- States in order to approve a timber sale on the reservation it is necessary that the allotment be included within a timber unit designated
under general forest management and sustained yield cutting plans.

IIA44.6 - Memorandum from A. G. Hauge to Supt. George LaVatta, 6/5/44.
- This is response to a request from Asst. Director of Forestry J. D. Lamont of 5/19/44 for information regarding timber to be cut in the first cutting cycle.
- Discusses some of the factors governing management and cutting practices on the Quinault Reservation.
- These include the broken topography, the poor drainage, the density of the stands, the abundant rainfall and high wind, and the shallow root system.
- Concludes that only clearcutting, with the leaving of continuous reserved green blocks or strips, is practical.
- Estimates the remaining timber at 2 billion feet, which would require a period of 40 years to complete, given an annual cut of 50 million feet. This is the cut which would work in with tentative plans for the Grays Harbor Region. However, Indians have expressed desire that their allotments be cut and have suggested an annual cut of 100 million feet per year.

IA44.4 - Letter from Asst. Secretary Oscar Chapman to Commissioner of Indian Affairs, 6/15/44.
- Public Law 273, 78th Cong., 2d sess, approved 3/29/44, authorizes the Secretary to include any forest land under his jurisdiction within sustained yield forest units. This will be done where it is found to be necessary in order to stabilize communities, forest industries,
employment or other public benefits. Inclusion of Indian lands will depend on their consent.

- Suggests that immediate attention be given to formulating plans for the accumulation of data as to forest resources as a basis for forest management plans.

IA44.1 - Letter from Acting Director of Forestry J. D. Lemen to Sept. George LaVatta, 7/7/44.

- Refers to a conference concerning timber matters in Commissioner Zimmerman's office on June 30.

- Discusses idea of the allottees' pooling their interests in the unsold timber north of the Quinault River into an association.

VM45.2 - Report of a meeting with the Tribal Council by Forester Carthon Patric, 7/18/45.

- It was explained to the Council that if the reservation was managed for saw timber, the length of time would be substantially longer than if managed for pulpwood. Since the Quinault Indians had accepted the IRA, they were governed by the sustained yield requirements of that act. If managed for pulpwood, a substantially larger volume could be cut per year than if managed for saw timber. If managed for pulpwood, the length of rotation would be about 60 years, which would mean that the remaining timber to be cut would be distributed over approximately a 60-year period, and the maximum annual cut would be approximately 60 million feet.

- States that several members of the Council made objections to the fact that under sustained yield management, many of the allottees would not
receive money for their timber for at least 40 years.

IIJ46.1 - Report by Forester Carleton Patrie and Senior Forest Ranger L. C. McKeever, 8/31/46.

- Concerns proposed sale of the Taholah unit.
- Beginning on p. 16 is a discussion of the management considerations for the sale.
- Includes short history of the logging on the reservation.
- Discusses the problem in the reforestation of the cutover area south of the river.
- States that generally the situation overall has proved to be better than originally anticipated in reproduction.
- Following discussion of the site quality on the reservation and growth studies by Dr. Walter Meyer, states belief that the interests of the Quinault Indians would best be served by directing the growth capacity of the forests principally toward pulp and cedar pole production and by as rapid a turnover on tree capital as possible commensurate with the rate of return.
- Also concludes that the Quinault Indians would be most benefitted by a rotation of 60 years.
- On the basis that the reproduction on cutover areas averages 10 years of age, concludes that the distribution of the cut on the remaining timber should be over a period of 50 years. However, because this would delay cutting over the allotments for what would seem to many allottees an unconscionably long period, they gave consideration to several compromise measures and concluded that distribution of the cut...
over a period of 40 years would work out satisfactorily from both Indian and forestry viewpoints. This would mean an annual cut of about 57.5 million board feet.

II46.2 - Letter from District Director E. Morgan Pryse to Commissioner of Indian Affairs, 11/18/46.

- States the greatest obstacle to the development of a sound long-range program for the Quinault Reservation is the extremely diversified ownership of the lands and the non-resident status of most of the allotment owners. Thus, there is very little community interest, and the principal concern is in immediate cash return for their timber. Forestry, community or industrial considerations and development of the resource have received very little sympathetic consideration by the Indians. Furthermore, by reason of legal restrictions imposed on use of federal funds for projects on privately owned lands, a large part of the cutover lands are now in idle and unproductive condition. Supports suggestion that the allotment owners of cutover lands be encouraged to restore ownership to the tribe.

IIA47.2 - Letter from Supt. Melvin Helander, enclosing budget estimate by Logging Engineer Patrick Gray and Forest Ranger L. C. McKeever, to District Director, 3/10/47.

- Under forest management, estimates the funds needed to carry on the work of cruising, surveying, research, growth and yield studies, management planning, and public relations at $35,346.00.

- States that if a detailed management plan is set up, approximately $71,000 would be needed to make a new cruise of remaining uncut timber.

States the Act of March 30, 1944 (56 Stat. 113), authorized the Secretary to establish sustained yield units on Indian land and allocate timber to selected operators. This is not our plan on the Quinault Reservation. Instead, the sale of the timber will be made in accordance with the regulations, 25 CFR 61.13 (d).


States there are several conflicting factors requiring careful study in determining the plan of management which should be followed for the remaining timber on the Quinault Reservation.

1. It is highly desirable that each allottee receive an income promptly.

2. Because of the complicated land ownership, the timber should be sold as soon as possible.

3. The accepted policy of sustained yield forest management suggests that operations should extend over a relatively long period.

4. The forests should be clearcut in order to avoid subsequent losses from blow down.

5. A serious fire hazard which results from the creation of large contiguous areas of recent cutover land should be avoided.

States these factors and the various proposals have been considered, and it has been concluded that the timber should be sold in four units of approximately equal volumes, made within short intervals, and requiring a minimum cut of 20 million board feet annually.
- Requests preparation of a forest officer's report incorporating these provisions.


- Concerns the proposed sale of timber on the Taholah, Queets and Crane Creek units.
- Acknowledges that forest management problems are most seriously complicated because of the allotted land base structure.
- The management consideration section is an updated and slightly revised version of that found in IIA46.1. One major variation is that they recommend the cutting of the balance of the virgin stands in a period of 30 to 34 years rather than the 40 years recommended earlier in IIA46.1. This is because they anticipate that contract extensions will be necessary because of the conservative estimate of the volume of timber and therefore the actual cutting period will run closer to the desired 40 years.

IA48.13 - Letter from Regional Director E. Mowgan Pryse to Commissioner of Indian Affairs, 12/10/48.

- Refers to IIA48.1 and notes that answers to questions concerning the future of management and sales of the volume of timber as contained in this report would suggest a pulpwood operation for the second cut with a 60 to 70 year rotation provided adequate natural restocking within a reasonable time and adequate fire and insect control.
- States that a practical forest management plan should be aimed at a
VA49.1 - Talk by Forest Manager Perry Skarra before the Roanoke Chamber of Commerce, 2/8/49.

- Explains difficulties of managing the forest where the ownership is broken up into individual allotments.
- States the problem is to comply with the requirements of sustained yield forest management when harvesting the timber and at the same time obtain an income for each individual allottee within a reasonable period of time.
- This has generally been done on the reservation by selling the timber in units. This permits method and order in harvesting, and the purchaser to write off development costs.
- Points out those who argue that the timber should be cut in as short a space of time as possible, that this would result in little or no order or method in the harvesting of the timber, the protection from fire would be difficult and costly, and the management of the property under sustained yield would not be feasible.
- Estimates that eventually an annual cut of 80 to 90 million feet can be sustained indefinitely.

IA49.15 - Letter from Regional Director E. Morgan Pryse, signed by Floyd Phillips, to Supt. Melvin Helander, 3/22/49.

- Points out the needs for surveys to obtain accurate information on which to base long-range management plans.
- Requests details as to personnel and other costs for these surveys.
IIR50.2 - Forest Officer's report by Forest Manager John Hoby and Forester Earl Wilcox, 11/9/50.

- This concerns the proposed sale of Crane Creek and Quentin logging units.

- The management consideration section beginning on page 15 is essentially the same as that of IIA48.1 and IJC46.1, except that a more detailed discussion and table are given for the expected volumes of second-growth timber available for cutting at the beginning of the second rotation. Also discusses the potential capacity of the reservation for growing timber.

- The discussion of the indicated cutting program is essentially identical to that of IIA48.1, except that the required annual cut indicated in the tables is 5,000 M less for each unit than indicated in the previous reports. Also, the allowable cut is increased and is on a tri-annual basis rather than an annual basis. Also, an adjustment in the projected annual cuts for the reservation is made through 1957. Also, a table is added which shows the drop in annual cut expected during the first 15 years of the cutting on the second growth because of the poorly stocked condition of a large portion of the present cutover land and the poor area distribution in age classes caused by the burns, especially during 1941. This is mitigated somewhat by the conservative estimates of the growth and the fact that the time required to complete the cut in the virgin timber would probably be substantially longer than forecast. Because of these circumstances, it is believed
that the annual cut should remain relatively stable during the period of adjusting the cut from the virgin to the second-growth timber.

IR51.4 - Letter from Supt. Raymond H. Bitney to Area Director, 5/3/51.
- In response to a request to submit reasons why the Crane Creek and Queets units should be offered for sale despite the possibility that Congress would not approve increase in funds necessary for administration of the proposed sales, states, among other reasons, that sound forest management would require the immediate cut of the timber on these units since the timber is over-mature and it would be necessary to remove the timber in order to restore the land to its productive capability.
- Refers to the plan of management set forth in IIR50.2.

VIIIA54.1 - Management plan by Forester Kenneth Hadley, 3/26/54.
- States the BIA is committed to a policy of sustained yield management. However, since Indian forest property is so closely involved with the welfare of Indian people, any plan of management must take into consideration the general Indian problem and be coordinated with the program of social and economic betterment.
- Objectives of management are to maintain a forest which will yield a continuous income from the sale of timber, as well as wages from employment. Another objective is to harvest the remaining timber in a manner as to insure reproduction and minimize losses to fire, wind-throw, insects and diseases. Another objective is to obtain the greatest
possible growth from the forest while leaving the smallest amount of
growing timber as a permanent capital investment.

- It is planned to operate the forests of the Quinault Reservation
as a pulpwood property with cedar poles a secondary production, on
a rotation of 60 years.

- Intentions are to revise this plan no later than 1/1/56.

- Revisions also will be conducted in event of emergencies due to fire,
windthrow, etc. Drastic changes in economic conditions or the forest
industry would also necessitate a revision.

- Proceeds to discuss the physical, geographical features of the
reservation. Following this, gives a history of the past logging
operations on the reservation. Then gives a brief history of fires.
Past cutting practices are also discussed.

- Reviews diseases, insect and other pest problems on the reservation.
Also gives a history of planting projects on the reservation.

- Discusses the method of redetermining inventories volumes of old-
growth timber. Includes tables indicating the estimated volumes
remaining on each of the units as of the end of 1953.

- Discusses the character of the remaining virgin timber and the
quality of the sites.

- Reviews the status of cutover lands, including the reproduction
surveys.

- Includes a section on the expected volumes of the second growth and
the indicated cutting program. States that at the present time the
proposed Queets unit is the only area of virgin timber not under contract.
Sale of the unit is contemplated for sometime in 1956 or 1957. It is necessary to postpone the sale of the unit until Boulder Creek and Quinault Lake units are completed and personnel can be released to administer an additional timber sale unit. With the sale of the proposed Queets unit, after 1957 the annual cut should level off at a relatively constant annual cut of about 75 million board feet until 1983 when the Taholah unit will be completed.

- States that provided the depletion of the old growth progress as indicated, a delay of cutting in the second rotation until 1938 would result in a reasonable annual cut during the period of adjustment.

- Includes a detailed record of cut of the Quinault Reservation from 1921 through 1953.

- States that one of the greatest obstacles to the development of a sound long-range program for the Quinault Reservation has been the extremely diversified ownership of the lands and the non-resident status of most of the allottees. Thus, the principal concern has been an immediate cash return from their timber. There has been constant pressure exerted to dispose of the timber irrespective of forestry, community or industrial considerations. The fact that the forest is allotted into individual ownership also increases the problem of bringing the land into full productivity where no expenditures of federal funds can be made on these lands for reforestation.

- States ownership consolidation is essential for the successful long-term management of the reservation.
IR54.1 - Letter from Supt. Melvin Robertson to Area Director Don Foster, 6/11/54.

- Concerns request for a report concerning complaints made by Claude Wain in a letter dated 5/11/54.
- Among other things, Wain objects to the manner in which the logging operations are conducted on the Crane Creek unit.
- States the principle of cutting by selected blocks referred to as staggered settings must be adhered to if they are to properly manage the Quinault forests for the best interests of all Indians. Such adherence to the plan should result in adequate restocking of the cutover lands so that it will not be necessary for allottees to resort to costly planting of trees.

IQ55.1 - Letter from Supt. Melvin Robertson to Allottee Bernard Kofoed, 5/16/55.

- States that plans are now being considered for development of the Quents timber and some action should be taken in the near future which will bring the allottee income from his timber in that unit.

IA58.6 - Letter from Chief, Br. of Forestry, George F. Kephart, to Area Director Don Foster, 8/11/58.

- Refers to VIII54.1.
- States that no further action has been taken on the plan since the transmittal to the office on 1/28/55. They are now approaching the date when it was originally contemplated to revise it. Rather than acting at this time on the plan in its present form, requests submission of a revised version for approval not later than 1/1/59.
- Among the items which should be considered in the revision are:

1. Abandonment of the original plan to incorporate the Quarter unit in one timber sale.

2. More recent information regarding acreage and timber volumes.

3. Restatement of timber sale policies regarding salvage, pre-logging, re-logging, etc.

4. A more detailed discussion of cutting methods to include the considerations which govern the maximum size of cutting blocks and the relation of one block to another.

5. A statement of forestry positions needed to carry out the provisions of the plan.

6. Discussion of tribal and allottee organizations as they affect forest management.

7. Include an analysis of stumpage markets and discuss existing mill facilities, location, capacity, etc.

IA58.2 -

(d) Letter from Acting Supt. Schwartz to Area Director Don Foster, 8/7/58.

- Regards complaint by Vernon R. Williams to Senator Jackson concerning efforts to purchase timber on the Smiler Jones allotment in the northwest portion of the Quinault Reservation.

- States that it is not good management to offer individual 80-acre allotments for sale on a hit-or-miss basis. In order to lay out staggered settings and leave sufficient standing timber for fire protection and reseeding, it is necessary to work with areas greater than 80-acre tracts.
- As more land becomes alienated within the northwest portion, the 
task of practicing forest management in the remaining trust lands 
by sound silvicultural treatment becomes more difficult. As these 
alienated lands become cutover, the fire hazard increases greatly. 
In laying out logging blocks, must be in a position to maintain 
residual stands as well spaced as possible to give assurance that 
restocking will be secured.

- These stands are also essential in order to break up slash areas.

IIA58.3 - Report by Forest Manager John Libby, 1/23/59.

- This is a supplement to the annual forestry report of the Western 
Washington Agency for the calendar year 1958.

- States that management of the northwest portion of the reservation 
is rapidly becoming an impossible situation. States they will continue 
to undertake a timber sale program for allottees who wish to retain 
their lands in trust, but the large number who have requested super-
vised sale of their allotments, as well as those who are securing fee 
patents, indicates that the BIA cannot expect to have much luck to 
work with.

- The cutover lands can be expected to follow the same pattern though 
at a slower rate. Most of these lands have stands of young trees up 
to 30 years old with varying degrees of stocking. Under proper forest 
management it should not be logged until it is from 50 to 70 years old, 
but the average allottee will not be willing to wait 30 years for his 
timber to reach rotation age if he can harvest it now for a substantial 
sum.
- Therefore, unless we foresake our management program and market timber for him as it reaches merchantable size, he is going to apply for a fee patent or a supervised sale of the allotment. Since the large majority of allottees is fully competent, there is no reason why most requests will not be granted. Since it appears that few, if any, of these lands will be in trust status by the time a second rotation of cutting should be commenced, question whether a survey of these lands should be taken.

IA59.6 - Memorandum from Forester Ornie Paakkonen to Ass't. Forest Manager Don Clark, 3/25/59.

- Refers to the request relating to the possible revision of the forest management plan, VIIIA54.1.

- Discussions by the forestry staff conclude that it is not logical to revise or abandon and renew the management plan. At the present time, they are preparing to make a new inventory study on all uncut forest areas of the reservation. Since cutting has not been done in all the various timber types to a degree great enough to get accurate per-acre volumes, any such figure applied to the entire unit may not truly predict the total volume.

- Logging in the Queets unit has not covered enough area to justify application of such figures either.

- Another basis of their conclusion not to revise, abandon or renew the management plan is that alienation of trust land has stepped up in the last several years to a point where a forest management plan would be impossible to adhere to. The total decrease in tribal allotted
and government land due to fee patents and supervised land sales in the years 1955 through 1958 is 18,173 acres. Approximately 250 allottees at the present time have requested supervised land sales or fee patents which are now in process. It is estimated that in the next year 16,000 acres will pass from trust to alienated status. Thus, it appears that a management program other than an orderly harvest is not feasible.

IA59.7 - Letter from Supt. C. W. Ringey to Area Director Don Foster, 4/6/59.
- Concerns request for a revised version of the forest management plan.
- States that VIII54.1 was never approved, but that insofar as practicable the plan has been followed, but it has been made obsolete because of rapidly changing circumstances.
- States they made no attempt to revise the plan because such revision would serve no useful purpose.
- States that Forester Onnie Paakkonen spent considerable time on the project but finally concluded that a workable revision of the plan was impracticable. He then considered preparation of a new plan of management, but encountered constantly changing conditions which indicated that any plan promulgated today would be obsolete tomorrow. Several months ago, I found it necessary to assign Paakkonen to timber trespass cases and agreed to suspend further work on the management plan until the trespass situations have been brought under control.
- States he agrees with Paakkonen's conclusion.
- States the area outside the Taholah and Crane Creek contract areas
can be expected to pass rapidly from BIA control. A management plan
governing the orderly harvest of the timber within the contract areas
would be feasible. The only plans for the rest of the reservation which
appear possible are (1) an orderly harvest of the remaining old-growth
timber on those allotments retained in trust status, and (2) limited
salvage of residual material on cutover lands remaining in trust status
where possible, and (3) provide for fire protection of trust lands as
long as they remain in trust.

- Cites some specific examples illustrating the impracticabilities of
developing a formal forest management plan for the reservation.

- States that under the circumstances it appears to be futile to attempt
to develop a forest management plan at this time. BIA management can
only be on a year-to-year basis as called for by the ever-changing
situation.

IA59.8 - Letter from Asst. Area Director Perry Skarra to Commissioner
of Indian Affairs, 5/20/59.

- Encloses IA59.6-7.

- Concurs with their opinion that a management plan for the Quinault
Reservation is not feasible at this time.

- States when the inventories are completed for the Crane Creek and
Taholah units and the trust land in the Queets area, it will be practical
to prepare a management plan around the orderly harvest of timber. At
present it is very difficult to plan for timber sales on allotments
because of the ever-changing desires of the allottee-owners. Until
the data is available from the inventories, believes the plan for the
forestry program should be (1) orderly harvest of remaining virgin stands of timber, (2) salvage sales from cutover allotments in trust status where feasible, (3) forest protection from fires, diseases and insects for lands in trust, and (4) forest inventory by allotment in areas not now covered by timber contracts for purpose of issuing fee patents or having supervised land sales where desired.


- States the forest management program on all but the Makah Reservation has become a matter of accomplishing an orderly harvest of the merchantable timber stands. On the Quinault it has been determined that the present rate of harvest in the contract area is not removing the timber rapidly enough to permit the contractors to complete their contracts within the time limits. A complete inventory of those units is needed.

- Aerial pictures have been secured for the Quinault Reservation, and a photogrammetricist has been added to the staff. The management program for the rest of the Quinault Reservation is on a year-to-year basis. The trend in fee patents and supervised sales has already resulted in a checkerboard pattern of ownership on the Quinault, and this trend can be expected to continue. The same thing is generally true on other reservations in Western Washington except for the Makah. This is because Makah timber is mostly in tribal ownership.
IIA60.1 - Report by Area Forester Earl Wilcox to Area Director, 9/15/60.
- Reports on field trips made to agencies within the Portland Area.
- Discusses the limited budget and personnel available for preparation of forest management plans for reservations.
- States that possibly the most important development in the management of Indian forest lands since the efforts which were directed to bring those lands under management during the early part of the century is the work of programming for the more intensive management of these resources recently started by Harold Weaver. An example is the work done at the Colville Agency recently.

VIIIA62.1 - Plan by Forest Manager John Libby, 4/10/62.
- This is a proposed program of action for Tcholish and Crane Creek units.
- States that the goal of providing the allotment owners with early income from their timber and at the same time effect the orderly harvest of that timber in accordance with sound forest management principles is not compatible.
- Suggests that the only feasible answer to the problem would be conversion of the ownership of the allotments to a single owner, preferably the United States, with provision for eventual transfer to the Quinault Tribe or perhaps the U.S. Forest Service. Such a program would cost the Government nothing in the long run and would result in improved management of the forest lands under the contracts. Also, it would simplify and reduce costs of the administration of the contracts, as well as reduce costs of the purchasers' operations. It would eliminate serious right-of-way problems and give all of the allottee-owners early payment
for their interests.
- Gives a history of a situation and a report on the current situation.
- States that pressures from the allottees to have their timber logged tend to have an adverse effect on forest management. Whenever feasible, adjustments are made in cutting plans to take care of hardship cases, which usually calls for a compromise with concepts in good management. Frequently, humanitarian considerations outweigh the requirements of good forest management.
- Other proposals examined included acquisition of allotments by the Quinault Tribe and the establishment of some form of common ownership through incorporation or formation of a cooperative. This last idea did not prove to be too promising because of the large number of persons involved who are located throughout the United States and Canada.
- Also, in view of the reaction to such proposals in the past, it is highly probable that only a very small minority would be interested in such a program.
- The acquisition of the lands by the tribe may be feasible. However, before the Quinault Tribe should take any action in acquiring real property from which future income is to be derived, they should first establish an accepted list of its members and take steps as necessary to enable it to function as a corporate body representing such members. It may very well take years to accomplish this.
- Thus, concludes that only the acquisition by the United States could be accomplished expeditiously and within a reasonable time.
IIA62.3 - Report by Area Director to the Commissioner of Indian Affairs, 5/20/62.

- Encloses VIII62.1.

- Agrees in principle with the proposed plan of acquisition by the United States.

- Mentions the very serious right-of-way problems which present the most serious threat to the wise management of the Quinault forests. Although in general agreement with the recommendations, makes numerous suggestions for improving the report.

IIA62.1 - (a) Letter from Deputy Commissioner John O. Crow to Area Director Robert Holtz, 12/14/62.

- Refers to VIII62.1 and promises it will receive consideration.

(b) Report on field trip by Area Forester Earl Wilcox to Area Director, 10/15/62.

- Among the principal problems discussed were Libby's proposals in VIII62.1.

- Suggests they be thoroughly studied by the Washington office staff.

IIA64.3 - Report by Supt. George Folsehaw to Area Director R. D. Holtz, 4/27/64.

- States disagreement with certain views expressed in the memorandum presented by Mr. Bruce in regard to VIII62.1.

- States the proposed plan of action by Libby has never been discussed with the Indians, but plan to do so at an early date.

- States belief that Libby's plan offers the only real solution to the problems, and recommends favorable consideration.
IIA72.6 - Report by Pierovich Study Group, 1/24/72.


- On page 10, suggests three alternatives to solve the management problems of the reservation.

- First alternative was for the Federal Government to repurchase all or part of the allotted and patented lands and place such acquisitions under a different form of management.

- Second alternative was to obtain a Federal loan for the outright purchase of desired tracts and sell stock in a land management corporation on a cash basis.

- Third alternative was to sell stock in a land management corporation both for cash and for titles to allotments on the basis of present worth cash value of the timber.

- States that unless one of these alternatives is followed, satisfactory forestry and multiple use management seem unlikely.

IIA72.4 - Report by Asst. Area Director (Economic Development) A. W. Galbraith to Commissioner of Indian Affairs, 2/29/72.

- Refers to IIA72.6.

- States belief that the report can be used, with the exception of the land base consideration, as a document outlining several management actions. (This would include treatment of logging residues, regeneration, road systems, streams, and recreation resources.)
- States as to land consolidation, it has been the subject of numerous reports and that if the property is to be successfully managed as a unit, something must be done to solve the complicated ownership pattern.
- Attaches comments of Forest Manager Jackson to the report.
- As to the need for a unified land base, the Bureau wholeheartedly agrees that this would ease the management problems.
- States that a considerable effort was put into a proposal to purchase fee lands in the Queets area from Morrison Logging Company. An attempt to secure a loan from FHA failed. Efforts are continuing to develop a land acquisition program through Weyerhaeuser Timber Company. There are Federal regulatory problems with this, however.
- Also, the Quinault Tribe desires to purchase allotted lands below the BIA appraised value if the owners agree.
- States the study group proposal for the issuance of stock in a corporation has merit because Indian people would continue to identify with the tribal entity.
- The Forestry Branch is studying a land management cooperative system.

IA72.5 - Letter from Supt. George Feland to Area Director, 3/13/72.
- Because of the recent concern over management policies, it is deemed advisable that the Bureau conduct an immediate and independent study of the overall existing situation. Management responsibilities have been tightened up to improve the quality of logging operations.
- Recognition of stream and fisheries problems has been taken, and actions are underway to correct adverse logging practices.
Recommends employment of a team of unbiased professionals consisting of a forester, fish biologist, forest economist and ecologist, which would analyze the contracts and management practices. According to news releases, other agencies, such as Sierra Club, Audubon Society, and American Friends Service, are planning to submit a report on the reservation.
The initial logging block locations in each unit are a joint effort of Bureau of Indian Affairs and Purchaser personnel with final field examination done in conjunction with personnel from the Tribal and Federal Fisheries and Bureau Forestry personnel.

Part One - Tables - Exhibit A

I. New blocks to be approved - Table I & Table II
   A. Block numbers
   B. Estimated acreages
   C. Volume by species

II. Blocks approved previously: Unlogged and carried over - Table III
   A. Block numbers
   B. Estimated acreages
   C. Volume by species

III. Blocks carried over: Unlogged and redesigned - Table III
   A. Block numbers
   B. Estimated acreages
   C. Volume by species

IV. Blocks listed in previous: Volume remaining to be logged
   A. Block numbers
   B. Estimated acreages
   C. Volume by species

V. Volume by grade percent
   A. Species
   B. Total volume in logging plan by species
   C. Grade percent each species

All tables are from the 1971 Plan since the entire 1972 Plan has not been approved.

VI. Planting necessary
   A. List block numbers
   B. Acreages
   C. Other

VII. Map planting block location and number
   A. Breakdown of old and new blocks & redesigned blocks
VIII. Procedures in determining volumes (Inventory Section - Cruise Timber)
A. Lot volume estimates for cutting blocks
1. Variable plot sampling techniques using prism or photo current estimated and unit inventory data and type
map information
2. Sampling error and coefficient of variation calculated
   a. Cruised by block
3. Cruises taken on all ratio-volume plots
4. Grades available on 5-year average, from logging

Part Two - General Logging Plan Choice and Layout

I. Development of logging priority list
A. Block choice in order of logging preference
   1. Tribal input
   2. BIA input
   3. Company input
B. Narrative on each block with a problem to be considered
   - Exhibit G, C, D, F
   1. Block number
   2. Streams
   3. Reforestation
   4. Soil
   5. Road construction

II. New Block Designations
A. Hardship requests to be considered during development of
   plan and throughout the year as required - Exhibit G
   1. By phone, letter, in person, tribe
   2. Elimination of costs
      a. Tribal assistance
      b. Social Services
      c. Forestry renders
B. Special Areas - during development of plan and throughout
   the year as is required
   1. Block down
   2. Turn
   3. Etc.
C. Unlogged allocations
D. Old logging
III. Block Layout and Design
A. Size: 30-40 acres
B. Number of blocks
   1. Approach 110 acres/year to finish
C. Boundaries
   1. Seed source
   2. Topography
   3. Streams
   4. Habitability
   5. Etc.
D. Alterations
   1. Minor: local office
   2. Major: Area Director approval
E. Type of equipment to be used in each block

Part Three - Detailed Information Various Phases of Forest Management (General Procedures)

I. Cutting - Exhibit A
A. Designated within each block
B. Type of protection
   1. Buffer - to what extent, if any
      a. Minor vegetation
      b. Sline
      c. Condition and extent of buffer trees to be left
      d. Etc.
   2. Log away from
  3. Clear if debris accidentally deposited
     a. Type of clearing procedure
     b. Area incomplete until cleared; no move out
C. Other relative information

II. Inforegirling: Each block examined for estimated results
   - Exhibit B
A. Natural seed source
   1. Distance
   2. Timber type
B. Planting (four step priority established)
   1. Acres
   2. Block listing
C. Other relative information
III. **Treasure Map** - Exhibit H
A. All maps moved to be checked and yarded in
   1. Logging
   2. Building spurs and roads
   3. Scenery
   4. Combine yarder tail blocks trails
B. Damage which may cause shutdown
   1. Soil disturbance
   2. Timber damage
   3. Screens
C. Minimum use

IV. **Boring** - Exhibit H
A. Tests possibly beneficial
B. Trial

V. **Five lines**
A. Map locations

VI. **Road construction guides**
A. Location
B. Building
C. Maintaining

*Part Next - Cutting Block Narrative Statement*

See cutting block maps and Exhibits C, D, E, and F.
23: Study Group Members

Enclosed for your review is the second rough draft of materials we reviewed together December 7. In addition to some minor editorial changes and format revisions to help bridge between different contributors, I've made the following major changes:

1. Changed the order of "Contributing Factors" to come ahead of "Existing Conditions." This was done because it seems to help the flow of thought from the "Summary of Problems and Possible Actions."

2. Added under the "Contributing Factors" segment on "Timber Sale Contracts," a new discussion on the possibility of terminating those contracts.

3. Reorganized the "Streams" section to more clearly present a background, a list of adverse relationships, a review of conditions found, and implications.

4. Deleted a portion of the streams discussion related to aesthetics and recreation, developing in its place a full new segment on these resources.

You will note that the editorial changes made to the larger draft are merely paste-on revisions. We have deferred complete revisions until after the next meeting in order to speed review copies to you.

I hope you will find the new draft a step forward, and will look forward to our get-together on December 22.

Sincerely,

John X. Pikowich
Forest Service Member
Quinault Study Group

Enclosure
REPORT ON FORESTRY AND RELATED RESOURCES MANAGEMENT
QUINault INDIAN RESERVATION
December 28, 1971

By Members of an Informal Study Team:

Harold Geren, Environmental Protection Agency

James Heckman, USDI, Bureau of Sports Fisheries and Wildlife

Dick Navarre, USDI, Bureau of Sports Fisheries and Wildlife

Dr. Gary O'Neill, Environmental Protection Agency

John Pierovien, Forest Service
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<td>Timber Sale Contracts</td>
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<td>Aesthetic and Recreation Resources</td>
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INTRODUCTION

This report was prepared at the request of the Quinault Indian Tribe and deals with forest management and related environmental problems on the Quinault Indian Reservation. The study group which made this evaluation was called together by the Tribal Council to serve in place of a study team which had been initially organized by the Commissioner of Indian Affairs. For a variety of reasons, the original Bureau of Indian Affairs-sponsored group never became functional.

The time available to the study group for field investigation and preparation of a report was quite limited. As a result, some of the information presented within this report represents only impressions of problems and possible solutions. For other problem areas, the team feels that specific, immediate actions and solutions are both needed and available. The text of the report indicates these areas.

The study team found serious problems involving both timber harvesting practices and environmental protection measures. Heavy slash accumulations were noted in many areas. This residue material, in addition to being at least in part a presently underutilized resource, results in increased fire hazard, reduced regeneration potential, and aesthetic impairment. Much evidence was seen of timber harvesting practices which adversely affect the environment. These include inadequate culvert designs, road alignments along streams, yarding of logs through streams, felling of trees in streams, etc. These practices have resulted in many cases of streams being blocked and silt and debris accumulating in fish spawning and rearing areas.
The following section of this report provides a summary of the problems encountered on the Quinault Reservation and outlines some possible solutions. The remainder of the report presents information and observations to support this summary.
allotments and others yet to receive payments who would have to sacrifice revenues if trees are to be left; and the need for a more unified voice in dealings with the BIA and the purchasers.

In developing this section, the study group recognizes its very limited information and calls attention of reviewers to the lack of time available to it to review several studies known to be in existence covering the same problem areas. On the other hand, we wish to present these possibilities in order that responsible tribal and Bureau officials may examine them in light of previous recommendations, as well as in light of a new climate for environmental concerns and concerns for the future welfare of the Indian population.
I. Resources Management Problems and Possible Actions Related to Existing Sales.—To simplify the interrelationships between sale administration, contract modification, purchaser cost allowances, and other actions related to the current timber sales, the study group developed a list of problems and a flow of possible related actions. These are tabulated in Figure 1, which follows. Because a possible action is suggested, we do not mean to imply that it has not been taken already. Rather, it is our intention to list it as a possibility which should not be overlooked; several possibilities listed have resulted from their mention by Bureau foresters, and none is believed to be especially novel.
I. Resource Management Problems and Possible Actions Related to Existing Sales

<table>
<thead>
<tr>
<th>Problems</th>
<th>Sale Administration</th>
<th>Contract Modification</th>
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<tbody>
<tr>
<td><strong>A. Residues</strong></td>
<td></td>
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<tr>
<td>1. The need for better utilization during felling, cutting, and harvest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Logs merchantable under contracts not harvested</td>
<td>As needed, improve &quot;pickup scale&quot; promptness and accuracy</td>
<td>Not indicated</td>
</tr>
<tr>
<td>b. Excessive breakage</td>
<td>Provide closer supervision of sawmill and yard operations with application of penalty scale for contract violations</td>
<td>Not indicated</td>
</tr>
<tr>
<td>c. Undersized material and materials with greater defect than in present utilization requirements</td>
<td>Not indicated</td>
<td>Review pricing arrangement for contract with possibilities of adjustments between pug and other potentially salable material</td>
</tr>
<tr>
<td>2. Relogging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Delayed &quot;pickup&quot; (see item 1a, above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Purchasers' &quot;first-call&quot;</td>
<td>Document agreement to relisting and/or exclude areas</td>
<td>Establish definite time schedules for each and for perpetuating relisting when permits occur.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Conditions</th>
<th>Purchaser C- Allowances</th>
<th>Other</th>
<th>Followup</th>
</tr>
</thead>
</table>
| Not indicated | Develop sampling procedure and call for check-scales | (1) Check on any past weaknesses
(2) Advise purchasers
(3) Issue internal instructions |
| Not indicated | None | Same as above |
| Review cost allowances for undersized material | None | (1) Purchasers negotiations
(2) Contract negotiations
(3) Possible new sales (See item 2.c, below for related new sales actions) |
| Not indicated | Determine marketing interest of purchasers | Clearly establish if to be sold separately, or establish pricing and modify contract |
| Make cost study of actual operations for use in further pricing | Determine obligation to existent subcontracts for re.setHorizontalAlignment| Notify purchasers and issue internal instructions |
### I. Resources Management Problems and Possible Actions Related to Existing Sales

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<tr>
<th>Problems</th>
<th>Sale Administration</th>
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<tbody>
<tr>
<td>c. New sales to accomplish</td>
<td>Protect allotment boundaries and/or removal</td>
<td>Not indicated</td>
</tr>
<tr>
<td>d. Disposal of unsalable material</td>
<td>Review documentation and issue needed follow-up documentation for</td>
<td>Not indicated</td>
</tr>
<tr>
<td></td>
<td>In pursuance of General Regulations #35, increase supervision during felling and</td>
<td>Not indicated</td>
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<tr>
<td></td>
<td>yarding operations; review logging plans for sensitive areas</td>
<td></td>
</tr>
<tr>
<td>B. Streams Protection</td>
<td>In pursuance of General Regulations #36, designate areas in advance on Unit Maps</td>
<td></td>
</tr>
<tr>
<td>1. Logging debris and felled trees in streams on first-cutting and</td>
<td></td>
<td></td>
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<tr>
<td>relog operations</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2. Removal of trees and logging debris from previous operations</td>
<td>Not indicated</td>
<td>Not indicated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Need for buffer strips to shade water courses</td>
<td></td>
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<tr>
<td>C. Road Construction and Maintenance</td>
<td></td>
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</tr>
<tr>
<td>1. New culvert installations to permit passage of spawning fish</td>
<td>Issue written instruction for installations on designated streams (per 5.1, above) and</td>
<td>Not indicated</td>
</tr>
<tr>
<td></td>
<td>require these be not in pursuance of General Regulation #35 related to obstructions</td>
<td></td>
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<tr>
<td>Actions</td>
<td>Other</td>
<td>Followup</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td><strong>Purchaser Cost Allowances</strong></td>
<td>Obtain allottee approval and powers of attorney as needed</td>
<td>See also Problem Areas #II and #III below</td>
</tr>
<tr>
<td>Determine legal obligations of contractor for unwaved areas and need for cost allowances</td>
<td></td>
<td>See Problem Area #II below for combining purchaser work with work from other sources of funding</td>
</tr>
<tr>
<td>Determine extent to which allowed for in Forest Service costs being used</td>
<td>Delineate in advance all sensitive water courses, developing definitions to match Forest Service sales upon which costs based</td>
<td>Notify purchaser of definitions and delineated streams. Issue internal instructions</td>
</tr>
<tr>
<td>Determine extent to which costs for previous years covered this item and extent to which requirements waived in sale administration</td>
<td>In delineated areas, for unwaved areas with adequate cost allowances, require cleanup</td>
<td>Notify purchaser and issue internal instructions (For waived areas, see Problem Area #II, below).</td>
</tr>
<tr>
<td>Not indicated</td>
<td></td>
<td>See Problem Area #III, below</td>
</tr>
<tr>
<td>Not indicated</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Not indicated</td>
<td></td>
<td>Notify purchasers</td>
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I. Resources Management Problems and Possible Actions Related to Existing Sales

<table>
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<tr>
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<th>Sale Administration</th>
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<tbody>
<tr>
<td>2. Reinstallation of culverts to permit passage of spawning fish</td>
<td>See Problem Area #II, below</td>
<td></td>
</tr>
<tr>
<td>3. Avoidance of siltation from road surfaces</td>
<td>For future installations, require adequate drainage, blading, and when needed to prevent rutting, the closure of specific roads in pursuit of General Regulation #35</td>
<td>Desirable, but not essential</td>
</tr>
<tr>
<td>4. Closure of roads too proximate to streams</td>
<td>See Problem Area #II, below</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>Purchaser Cost Allowances</td>
<td>Other</td>
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</tr>
<tr>
<td></td>
<td>Not believed to be needed if precedent has not been set in previous administration</td>
<td>None</td>
</tr>
</tbody>
</table>
II. Resources Management Problems and Possible Actions Related to Rehabilitation Beyond the Capability of Alloitees, Fee Patent Holders, the Tribe, and Purchasers of Existing Timber Sales.—The study group recognizes the past forestry practices and today's recognition of environmental needs are not in harmony. It is our belief it would not be proper to require the purchasers of existing timber sales to rehabilitate the lands and streams beyond those actions outlined in 1, above. On the other hand, we believe the trust status of the Federal Government in relation to the allotted lands establishes a basis by which the Federal Government should participate in their rehabilitation.

In searching for means by which this rehabilitation could be accomplished from timber revenues, we note that General Timber Sale Regulation No. 50 provides for setting aside 10 percent of the gross proceeds of the sale, and that this 10 percent is paid to the Treasury as general revenues. Since administration of the trust lands should be compensated for at less than the 10 percent rate, it is our suggestion that the Bureau of Indian Affairs propose legislation to the Congress which would enable the Bureau to deposit a portion of the 10 percent funds in a special trust account.

This special trust account would be used for slash disposal, stream rehabilitation, and reforestation expenses. It is our understanding a previous suggestion along these lines has failed to result in such legislation, but we believe the opportunity to better these lands and their surrounding environment by such a means should be repropose now.
In addition to the special trust fund suggested above, and to the provisions for forest residues management presented in part 1, above, we suggest the following be undertaken:

A. From its administrative appropriations, the Bureau of Indian Affairs should undertake preattack planning on the Quinault Reservation to identify strategic locations for fuel hazard reduction. With completion of this preattack plan, priorities can be established, and the work of installation accomplished, using the slash disposal provisions of the timber sale contract (see Section No. I.A.2.d, above) in combinations with work done from such special funds as can be made available.

B. In offering new sales for salvage relogging, the Bureau should give consideration to new market opportunities and should consider offering sufficient acreage and time to encourage an efficient operator to make the necessary capital investment for full utilization. We visualize more than the now very limited relogging for shingle bolts and other lesser products. For this purpose, the Bureau should proceed with work already planned to investigate a sorting facility with a possible particle board outlet.

It is our belief the tribe must recognize that the Quinault Reservation has been allotted, and that much of it has gone to patent, as a result of an attempt to allocate the timber resources of these lands. It seems the intent of this allocation was to provide individual allottees an adequate financial basis for establishing themselves in our competitive society. Due to the timber types involved, the financial needs of individual allottees, and the time frames of harvesting the timber resource on these lands, the cutting of timber closely approximates a liquidation operation.

At the same time, the study group recognizes the desirability of maintaining an ethnic tie to these lands and of maintaining the identity of the Quinault Indians. We believe the tribe can accomplish these objectives if its members can present a unified position, and can achieve the financial means by which these fragmented lands can be placed under one management as a land base for the Quinults.

We also recognize that the environment of an important segment of the Pacific Northwest is at stake, and that fragmented, not only the enjoyment of its resource potential for the Indians, but for all races, is impaired.

Three alternatives were identified by the study group as possible solutions to the land base problem. One of these would be for the Federal Government to repurchase all or part of the allotted and patented lands and remaining timber, placing such acquisitions under a different form of management. This alternative would call as well for negotiation of terminations to the existing timber sale contracts. It is conceivable
that such a repurchase procedure would be in keeping with the current policies of the administration and the wishes of the public regarding the needs of the Indian.

The other two alternatives are those by which the tribe could attain equalization between allottees who have already received revenues from the liquidation of timber on their allotments and allottees who have yet to receive such revenues. Either might provide a land base for the Quinaults. Pursuit of each of these alternatives will require financial analyses and proposals far exceeding the ability of this study group to set forth in detail. The skeleton containing these two alternatives is, however, set forth as a guide to the study group's thinking in Figure 2.

Unless one of the three alternatives is followed, forestry and multiple-use management seem unlikely. Each would provide for protection of the fisheries resource by leaving blocks of timber along key water courses, and for the aesthetic resource on allotments in prime recreation use areas (when to do so now requires at least a short-term financial sacrifice by individual allottees).
Figure 2

SKELETONIZED FLOW OF POSSIBLE ACTIONS RELATED TO A LAND BASE

Tribal Council Reach Agreement
on Desirability of Providing
a Land Base for Continuance
of the Tribe

Establish Priorities for Land
Base Acquisition (e.g., Potential
Recreation Areas, Streamside Buffer
Strips, High-Site Timber Production Lands)

Incorporate for Sale of Stock in
Land Management Corporation

On Basis of Present Worth of Future
Earnings, Determine Values of Tracts
Desired for the Minimum Land Base
ALTERNATIVE 1
Obtain Federal Loan for Outright Purchase of Desired Tracts

Sell Stock on Cash Basis

Purchase Tracts

Proceed with Timber Liquidation in All Possible Stands, Reserving Selective Cut for Streamside and Recreation Track Acquisitions

Repay Loan and/or Pay Dividends to Share Holders

From Reserves, Acquire Additional Tracts, Liquidating Timber Until an Adequate Financial Base Exists for Growing Silt and Growing Stock Acquisition

ALTERNATIVE 2
Sell Stock in Corporation With as Cash Sales and for Titles to All Tracts on the Basis of Present Worth Cash Value of Timber 1/ on Tracts to be Applied in Exchange for Shares

Function as the Representative for all Corporation Lands In Dealing With Timber Relogging, Sales and with Administrative Relationships of Existing Silt.

1/ Including valuable timber on tracts now cutover. There should be a great incentive for Allowees of lands now cutover to become shareholders in order to get on with the relogging which seems to be at a standstill.
the study group, the group defined by its membership in the study group, and the events that occurred during the study period, including the meetings of the study group, the decisions made, and the recommendations made.

The study group was formed in response to a request for a project committee on "Indian Affairs". The study group was composed of members from various disciplines, including economists, sociologists, and historians. The study group met regularly to discuss the issues and to develop recommendations for the government.

The study group's recommendations were presented to the government, and some of them were adopted into policy. The study group also published a report, which was widely read and discussed.

The study group's work has been influential in the development of Indian policy in Canada. Its recommendations have been used as a basis for subsequent government policies and programs.
recent past at the direct request of the Tribe. Messrs. Heckman and Navarre, as employees of the Bureau of Sports Fisheries and Wildlife, have been acquainted with the problem for a number of years through the Bureau's general program providing assistance to the Tribe cooperatively with the BIA.

Following is a chronology of the meetings and other activities of the study group.

An incomplete assembly of the study group met in Mequiam on November 29 with members of the tribe and the BIA forestry staff. Review group members present: Messrs. O'Neil, Geren, Heckman, and Navarre. Tribal members were: Helen Mitchell and Guy R. McLands. BIA forestry personnel were: Joe Jackson, Forest Manager; Will Cary, Assistant Forest Manager; and Foresters Carrie Paakenon, John Schneff, Ray Louder, and Ralph Gustofson.

The group discussed general matters relating to the reservation logging activities. BIA representatives covered some history of their methods of approaching stream protection, residue salvage, and stocking problems, and of plans for the future.

November 30

The above members of the study group toured the reservation with Mrs. Mitchell and Tribal Fishery Biologist Gary Stauffer. Mr. George Feleshaw, Agency Superintendent, accompanied the tour during the afternoon portion. Examples of the effects of both past and current logging operations were viewed in the Crane and Taholah logging units.

December

All members of the study group except Mr. Lynn were provided an aerial inspection of the reservation through cooperation of the
Bureau of Sports Fisheries and Wildlife. The aerial inspection concentrated on the Taholah and Crane Creek Units although some coverage was given the entire reservation. It provided a relative view of the early to recently logged areas and unlogged areas on the reservation. In addition, inspection of specific stream problem areas such as Canyon and Camp Creeks was provided.

In the afternoon the BIA forestry staff conducted a tour of the Crane and Taholah Units. This was the first occasion on which the entire study group was assembled together. BIA representatives were Messrs. George Pelshaw, Onnie Paakonen, John Schnaff, and Ray Louder. Mrs. Helen Mitchell and Mr. Guy McMinds accompanied the group.

Within the Taholah Unit, Mr. Louder concentrated on examples of natural and artificial tree stocking in logged areas. An example of stream clearance on intermittent streams was visited in Logging Block No. 79. Mr. Schnaff directed the group to an example of improved logging practices on Boulder Creek, tributary to Quinault River.

During the evening, the study group met with the BIA forestry staff, basically to provide Messrs. Pietovich and Lynn with a review of the discussion held by the remainder of the group on November 20.

December 2

The study group met with Mr. George Longren, of H. Rayonier Company, and explored his views of interpretations and compliance with the Crane Creek timber sale contract. Specific subjects covered were the company's attitude and practices relating to stream protection and residue salvage.
Evans Products Company also met with the group during the morning. Company representatives were Messrs. Hal Stilson, Manager, U.S. Soft Woods; Dave Davis, Manager, Western Washington; Elmer Parker, Logging Manager; and Don Hurd, Forest/Engineer. Basically, the same discussion, but concerned with the Taholah timber sale, was held with the Evans representatives as with Mr. Longren of Rayonier.

During the afternoon the study group met with representatives of the tribe. Included in this group were Mrs. Helen Mitchell, Anna Coote, Jessie Curley, Christine Lehman, and Messrs. Guy McKinds, Benny Charley, Francis McCory, and Harold Curley. In addition, Tribal Foresters D. Terry and Milton Smith and Salvage Operator Lonny Broomsfield participated in the discussion. Here, as in the meetings with the logging companies, the subjects of contract compliance, with emphasis on stream protection, and residue salvage were discussed.

The tribe's meeting concluded the review group's investigative field activities.

Contributing Factors

Impact of Allotments on Forest Management. The allotment of approximately 30-acre tracts to individual Indians, and their trusteeship status, have significant bearings on forest management in the Quinault Reservation. This has undergone study by others. The significance of these allotments can be summarized as follows:

1. The Queets Unit (not visited by the study group) has gone mostly to patent with only a few trust allotments remaining.
2. The Taholah and Grove Creek Units are completely allotted, and under timber sale contracts which obligate the timber
to be cut at a rate which can be likened to a liquidation operation.

3. The only base land available to the tribe is mainly old cut-
overs south of the Quinault River, and amounts to about two
percent of the total area in the Reservation. With the
"Liquidation" cutting in progress, and an emphasis on obtain-
ing maximum revenue for the allottees as quickly as possible,
multiple-use land management objectives have generally not
been pursued. Questions such as the need for leave strips
along streams, while envisioned by the timber sale contract,
remain unresolved in terms of individual allottees who it
seems must forego stumpage returns for all timber so left.

Allottee representatives with whom we not indicated that the
allotment problem is overdrawn by the BIA and is used as an excuse for
poor land management. It is our belief that a trend toward a desire
for better land management on the part of the Indians remaining on the
reservation exceeds the on-the-ground trend for better land management
possible and being attempted by the BIA. It may also exceed the desire
of allottees not resident on the reservation. In any case, there
remains a question of fairness to allottees still waiting for returns
from their allotments, as well as to Indians who will depend upon the
allotted land for generations to come.

Timber Sale Contracts. The lands in question before this study
group are under long-term contracts as follows:

ITT-Rayonier, Crane Creek Unit: contracted 1952; expires 1983.
Evans-Aloha Lumber Corporation, Taholah Unit: contracted 1958;
expires 1979.
These long-term contracts contain many statements open to interpretation which require exhaustive study in terms of prudent practice, accepted practice, written interpretations made to date, and intent at time of contracting. Such study is not a possibility for our presently constituted group.

In general, it can be said that these contracts could be interpreted to provide for environmental protection as now seems to be sought by at least certain of the Indian representatives. It seems fair to also recognize that most of such clauses are discretionary and do not contain the specific language associated with more recent contracts on other areas, such as the National Forests with which they have been compared. Some contract provisions have been waived (for example, the provision for slash disposal) as a measure believed to be desirable to protect salvable volume and as measures to provide for maximum returns to allottees.

No provision appears to have been made in the contract for the significant overrun being experienced on either sale. It was reported to us that overruns to August 1, 1971, were as follows:

- ITT-Rayonier, advertised volume 614,000 MFB; logged 975,531 MFB.
- Evans-Aloha, advertised volume 545,000 MFB; logged 1,002,491 MFB.

The effect of these overruns on amortization of road and other fixed costs is unknown to the study group. It should, however, be an important factor in determining the stumpage price and in consideration of possible new contracts for salvage relogging.

In regard to salvage relogging, we received several conflicting interpretations of the present contracts, which are viewed by the purchasers as conveying at least a "first-call" option to them for any relogging to be done. The Aloha Lumber Corporation contract was modified in November 1968, and the ITT-Rayonier contract was modified...
in August 1959, to provide for a better understanding of pickup scale and salvage logging provisions.

Both modifications call for salvage relogging operations to not be commenced in any area until logging of merchantable timber, as defined in the original contract, has been completed and pickup scale made. After this is done, the purchaser and the forest officer in charge are to designate areas which are to be excluded from the provisions of the modification; however, in the event of a disagreement, the provisions of the contract modifications are not to be applicable, and no scale of salvage material nor any obligation under the contract modification are to exist for the purchaser to take and pay for salvage material within excluded areas. (We thus interpret "excluded areas" as being those which were designated exclusions, as well as those upon which agreement could not be reached.) In the event agreement is reached, the purchaser is to pay for salvage material at rates to be adjusted as otherwise provided in the contract. The initial rates to be paid for salvage material were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Pulpwood</th>
<th>Shingle Bolts</th>
<th>Shakesounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahka Lumber Corp.</td>
<td>$2.00/cord</td>
<td>$4.60/cord</td>
<td>$17.00/MBF</td>
</tr>
<tr>
<td>Rayonier Corp.</td>
<td>$1.50/cord</td>
<td>$1.75/cord</td>
<td>$15.00/MBF</td>
</tr>
</tbody>
</table>

A further provision related to salvage relogging in both contract modifications is that when the purchaser does not concur with the forest officer in charge as to relogging of any particular cutover area, the superintendent of the Western Washington Indian Agency may proceed to make salvage sales on such areas to other purchasers in keeping with the current SALIS provision of the general timber sale regulations. This provision covers interference with the operations
of the previous purchaser, rights-of-way, and related matters. The study group pursued this possibility with BIA forestry personnel to determine if this procedure had been followed. We found that BIA personnel believe the need to obtain new powers of attorney from the many allottees was a major obstacle in pursuing additional sales for salvage relogging. No record was made available to the study group of exclusions (see above). It appears to us that some vague hope has prevailed that ultimately the original purchaser would undertake broadscale relogging.

Price redeterminations, as provided for in the two contracts, are also a point of seeming misunderstanding between the Indians and the BIA. The use of weighted average log prices and other bases for redetermining stumpage rates has been the subject of appeals by purchasers and Indians alike, and is well documented.

An additional facet of this repricing provision is the use of new logging costs. Without extensive study of the reappraisal procedures followed by the BIA, it is not possible for the study group to comment in depth on this cost allowance. We were advised that Forest Service appraisal data adjusted to the area being logged is used. It has occurred to us that if Forest Service data are used, these likely reflect some of the additional costs of special environmental provisions in more recent Forest Service timber sales. If this is true, it is proper for the BIA to make like requirements, so long as these are provisions of the contracts in question, and so long as these are applied on the actual job to be done (as with stream clearance) or other issues, the same as originally collected.
As discussed above in relation to overrun, the question of road costs amortization has also been raised; purchasers' representatives with whom the study group met implied that there were road costs yet to be amortized.

Related to these contracts, we considered the alternative of contract termination as one possible avenue of solving some of the land management problems. Again, this alternative would require an exhaustive study not possible for the presently constituted study group. To provide a record of the reasons why this alternative is not presented as possibly actionable in the preceding section, we present here a summary of the elements we did consider.

**Possible Advantages:** Older contract provisions, commonly in use when the present contracts were made, could be replaced by more modern and more definitive provisions in new timber sales. Area-by-area agreements could be reached with individual allottees as to method of benefit and any timber to be reserved from cutting. If sold through a single agent, spaced over adequate time, better revenues might be realized. Overruns could be better accounted for.

**Possible Disadvantages:** Delays would be experienced in marketing any timber while negotiations and/or litigation proceeded with present timber sale purchasers. The temptation to go to patent and to proceed with rapid liquidation (even at reduced rates of revenue) would be likely to make the land management problem greater instead of better.

**Lack of Standards.** One of the factors contributing to the current environmental problems on the reservation is the lack of standards for
road design and maintenance. The existing contracts contain no provisions for specifications regarding road building standards and, to date, none has been effectively utilized or imposed by either the purchasers or the Bureau of Indian Affairs.

Numerous guidelines to improve road construction have been developed (Forest Service road specifications; Industrial Waste Guide on Logging Practices, Environmental Protection Agency). Vigorous application of such guidelines to road construction and maintenance operations on the Quinault Reservation will substantially reduce adverse environmental impacts.

Another area where the question of standards or guidelines is pertinent is that of stream protection and clearing operations. Both purchasers and the BIA indicate that until quite recently, the needs for stream protection and the methods to be utilized have not been adequately explained to them. Reports are available which indicate, however, that many of these needs were made known by the Bureau of Sports Fisheries and Wildlife prior to 1966. Reasons for non-implementation of programs to meet these needs were generally not indicated to the study team, or were associated with the Allotment-related constraints on land management (discussed above).

For many of the questions relative to stream protection, methods, guidelines, and criteria developed in other areas are applicable and should be applied to reservation streams. Adoption of such guidelines, altered as required by specific problems, would provide a common framework for implementing environmental protection measures.
Existing Conditions and Their Implications

Logging Residues. From its limited observation of logging residues, the study group agrees with previous reporters from the BIA and others that heavy slash is present on most areas where timber has been harvested. Landings are particularly heavy to tops, broken pieces, cut-out chunks, and broken slabs of western red cedar and hemlock. Rot is evident in many pieces, and there can be little question of the soundness of many others, which, while generally falling below the utilization requirements of the existing timber sale contracts, appear to be at sufficient size and in adequate volume to make a salvage operation profitable. There appears to be an excellent opportunity for both a chipping and/or specialty woods (such as might be used in production of interior paneling) operation. The cedar observed can be expected to remain sound for many years. The hemlock, spruce, and other lesser species have deteriorated, or are deteriorating, at a rapid rate.

On the logging units themselves, there is a large volume of slash which, in many cases, appears to be operable for salvage. In some cases, it may be desirable to forego salvage or treatment of residues, since these may be intermingled with reproduction. On some areas, residues may even serve to help avoid overcrowding of reproduction.

Contradicting statements were made by Bureau of Indian Affairs foresters and Indian representatives regarding "pickup scaling" (scaling done following logging of the unit to determine volume for which the purchaser must make payment under the utilization requirements of timber sale contracts). We were told by BIA representatives that the size of such residues amounts to about one percent of the total volume taken from units, and that pickup scaling is done, as nearly as practical,
on 100 percent of the area. Indian representatives, including their consulting forester, indicate that this pickup scale is not adequately finding the poor utilization they claim to be part of the overall residues problem. We also learned from BIA personnel that there is currently a 1-year delay in accomplishing their "pickup scale."

From memoranda reports of BIA foresters reviewed by us, we find that the slash problem is well known to the Bureau, and that recommendations have been made regarding treatment of the residues, including salvage. Breakage is also covered in these memoranda, and while we concur that high breakage is generally experienced in western redcedar, it seems some "high-grading" may have occurred.

The effects of residues on the future of this area can be summarized as pronounced in terms of fire hazard, wood fiber not being used, aesthetic impairment, reduced regeneration, increased costs of future land management operations, and difficult access for wild animals.

Included with these logging residues should be the salvage possibilities for standing dead timber and wind-thrown timber. The standing dead cedar along the margins of recent wildfires would seem to contain considerable volume which has yet to be salvaged. Windthrow is less of a problem, but is still evident in some areas.

Regeneration. The principal species in the old growth timber being harvested are western redcedar (over 50 percent of the volume), western hemlock, and pacific silver fir. Western redcedar is generally regarded as a climax species and, of lesser desirability (due to its slow growth) for areas under management, except in very wet locations.
Our study group was informed that a regeneration survey is being completed now by the BIA Inventory Group. Comments from Indian representatives indicate disagreement on the criteria for adequate restocking. According to a regeneration survey report dated October 31, 1971, prepared by N. Dee Terry, consultant forester, "good to medium" reforestation can be found on the following percentages of areas logged:

17.67 percent - Crane Creek Unit; 20.51 percent - Taholah Unit. In discussion, it was developed that these statistics are based on an adequate spacing criteria of 3' x 3' (for 700 trees to the acre), as opposed to a general industrial objective of 400 trees to the acre. It is of interest in this regard that the reported practice on the adjoining Olympic National Forest has been to burn logging slash and to plant Douglas-fir on a 14' x 14' spacing (resulting in approximately 222 trees per acre) with the expectation that hemlock will naturally seed the remainder, resulting in full stocking.

The significance of differing figures for adequate stocking is apparent. Without an opportunity to review the Bureau's current inventory of restocking against conditions on the ground, it is impossible to conclude whether valid restocking criteria are being used. On the other hand, the present scarcity of seedlings in some of the larger units, not well exposed to sources of new seed, leads the study group to conclude that it is likely some areas will remain understocked for some time.

The BIA Area Forester expressed a concern for leaving seed sources east of current units in order to capitalize on dry east winds for seed dispersal, while others interviewed indicated a need for seed
sources west of clearcut units. The belief in seed sources to the
east of clearcut units seems to be well substantiated in the literature
for coastal forests. (See, for example, Ruth, Robert H. and Carl M.
Bernstein. 1955. A four-year record of Sitka spruce and western hemlock
seed fall on the Cascade Head Experimental Forest. USDA Forest Serv.,
Pacific Northwest Forest and Range Exp. Sta. Res. Rep. PNW-12, which
states: "Traps near the northeast timber boundary received more seed,
indicating that most of the seed crop was disseminated by occasional
dry northeast winds.")

The implication of these conflicts in interpretation of adequate
restocking, and the apparent need to encourage faster-growing species
than western redcedar emphasize a need for more precise information on
the current adequacy of stocking by species. In addition, the relation-
ship of cutover area to seed sources (which in many cases are considerably
removed from areas cut) indicates a need to take a critical look at the
future fill-in potential, and thus productivity, of the area.

Very recently, some artificial seeding and some planting has been
done by the BIA from appropriated funds. No collection is made from the
stumpage for this purpose or for slash disposal which would be needed
for properly planting the areas cut. We were told by BIA foresters that
volunteer seedlings on burned areas had been observed to die in their
first year due to damping-off (a fungus disease commonly encountered
throughout the Pacific Northwest). While western redcedar and hemlock
seedlings may frequently have high mortality rates in nature due to
various causes, the study group is led to discount damping-off of
volunteers as a reason for not burning slash. We further believe that
slash disposal and planting to desirable species should be done if
means can be found to pay for these costs.
Road System Design, Construction and Maintenance. The road system within the Quinault Reservation is very extensive, consisting of many miles of primary haul roads, branches to specific logging blocks, and spur roads to landing sites. Many of these roads have been constructed in the bottoms of drainages. Particularly in the Taholah Unit, these roads cross a large number of year-round and intermittent streams.

Silt originating from road construction and logging activities is one of the primary water quality considerations associated with timber harvesting. This is particularly so in areas of heavy rainfall such as the Washington coast. Conditions observed in the Taholah and Crane Creek Units indicated an almost total lack of any significant erosion control measures. Culverts at many stream-crossings were of inadequate size as indicated by evidences of recent wash-outs and pending upstrEm. In many instances, water was moving through embankments by seepage and piping, due to improper size and placements of culverts. In many locations, the existing culverts were partially or completely blocked by wood debris. Numerous installations were observed where the culvert discharged onto the embankment rather than into the original channel beyond the edge of the fill. Erosion of the fill material was obvious in these instances. Bank protection measures at culvert inlets and outlets were not observed at any location. At one point along the 7000 Road, water discharged from a culvert drops some 20–30 feet. Since installation of this culvert, a pit some 30 feet in diameter has been washed out of the hillside and at present is encroaching into the road.

Poor road alignment and maintenance is also contributing significantly to erosion at many places on the reservation. Steep grades were observed
in several locations. The use of check dams or other controls, however, to minimize erosion in the side ditches was not observed at any location visited by the study team. An example of the results of improper alignment and lack of controls was evident in the No Name Creek drainage where side ditches had been eroded to depths of 2-3 feet.

The implications of the present road conditions and construction and maintenance practices are quite significant. Numerous studies have documented the adverse effects of silt on fish spawning and rearing areas. These effects are accentuated in areas such as the Quinault Reservation where many of the streams are blocked by debris; the slowing of currents behind these obstructions results in an increased rate of sediment deposition in the upper tributaries. This was observed in several areas such as lower Canyon Creek and Duck Creek.

The consulting forester for the Quinault tribe stated that road network density on the two units is 120 percent of that required to harvest the timber. The BIA advised us that additional roads are required to reach individual allotments. The study group did not examine this matter in detail; however, it appears there may be basis for the BIA statement.

**Streams.** The average annual rainfall on the Taholah and Crane Creek logging units is 120-140 inches. Rainfall varies from more than 20 inches per month in the winter to less than 3 inches per month in the summer. In addition to many permanent streams, there are a large number of intermittent streams in these units. The streams in the Taholah and Crane Creek units are part of four distinct river systems flowing into the Pacific Ocean; these are Quinault River, Hil...
River, Duck Creek and Camp Creek. The entire watersheds of Duck Creek and Camp Creek are within the boundaries of these two logging units, while only portions of the larger Quinault and Raft River watersheds lie within their boundaries. Historically, these river systems have been good producers of salmonid fish, both anadromous species and resident trout. The primary requirements for spawning, hatching, and rearing these fish include access to clean, oxygenated spawning gravel, suitable water temperatures, sufficient food and space.

Alteration of water yield and runoff intensity, as well as other potentially adverse effects of logging, affects streams and their abilities to produce salmonid populations. The following general adverse relationships are to be considered in light of the subsequent discussion on present stream conditions:

1. Logging debris left in streamsbeds or on streambanks often accumulates to form jams which impede the upstream and downstream migrations of anadromous fish. Also, a biochemical oxygen demand (BOD) is often created by decaying vegetative debris.

2. The silt load of a stream can be greatly increased, to the detriment of salmonid production in several ways. The silt particles act to mechanically reduce the percolation of oxygenated water through the gravel to the eggs. Silt can also physically inhibit the emergence of fry from the gravel. Much of the silt is organic material which, when decaying in the interstices of the gravel, often creates
The effects of water pollution on the ecosystem and environment are serious, and the consequences of water pollution can be devastating. Proper management and mitigation strategies are essential to prevent further environmental degradation.

1. The removal of large amounts of riverine vegetation

If the river bank is made lower, special precautions must be taken to maintain water quality. On the other hand, excessive desiccation for economic production, on the other hand, may also reduce the amount of food available to sustain the ecosystem's biodiversity. It has been observed that direct sunlight to reach the system increased the amount of water course particles, leading to a decrease in aquatic populations.
drainage patterns. In many cases, because of these logging block layout patterns, it was necessary to yard logs across streambeds to the landing areas. This practice not only disturbed the streambed and banks but directly added to the silt load in streams. We noted, however, that some more recent logging blocks were established using the stream as a boundary and thus eliminating the need to yard logs across the streambed.

On Canyon Creek there were no uncut logging blocks on either side of the stream valley from its confluence with the Quinault River to near its headwater. Surface runoff into Canyon Creek will follow the same patterns as if the entire stream valley had been cleared in one operation. Flash flooding and excessive silt loads are likely to result. Numerous log jams were noted in this stream; these jams mainly resulted from flash flooding which carried debris for great distances. Numerous silt deposits were also observed.

The terrain in the Taholah Unit, which includes most of the Dusk Creek and Camp Creek drainage systems, is quite steep and contains many intermittent streams as well as small permanent feeder streams. There apparently has been little or no consideration given to protection of hillside and stream banks in this area. Trees were felled across waterways without regard for a stream's environment.

Some recent attempts have been made to clean debris from the streams. Even though the larger debris has been removed, large amounts of small debris along the banks can be observed and will likely wash down into the streams to form jams. Uprooting of trees would have resulted in far less debris in the flood plain of the streams. Few non-commercial trees, or trees of lesser commercial value, have been left
standing along the streams to provide shade which would moderate
raises in water temperature. Some load gradients in the area seemed
greater than needed for the terrain being logged; these appear to
contribute significantly to the silo load of the streams. In many
areas culverts which have been set above the stream gradient, often
plug up with debris, and road washouts at culvert points appears to
be quite common. (Road washouts of course, contribute additional
amounts of sediment to the streams.)

The terrain in the Crane Creek unit is more gentle than in the
Teholah unit. Hillside and stream bank erosion has been less of a
problem than in the Teholah unit. In most areas within the unit, few
standing trees along the stream banks were observed. In one area along
Boulder Creek, it was noted that some non-commercial trees were left
standing to provide shade. While commendable attempts have been made
to clear up several streams in the Crane Creek unit, where bulldozers
were used for this work, the stream banks were disturbed and this method
of stream clearance actually contributed sediment to the stream. Pools
were conspicuously absent in streams cleared in this manner. Without
such needed pools, there is no rearing habitat for salmonids.

Company representatives stated trees can generally be felled uphill
and away from stream beds; it is difficult to understand why this has
not been done in the past since the lessened stream clearance work
necessary should be an important logging cost tradeoff consideration.
In one recently cut timber stand along Boulder Creek, trees were felled
away from the stream, and it was evident that no stream damage had
occurred nor would any stream clearance work be necessary.
In summary, fish production in streams on the Taholah and Crane Creek logging units has been greatly reduced by past logging practices. Historically, the fish in these streams provided the Quinault Indians a source of food and revenue. The reduction of the fish habitat as a result of logging activities has been the major factor for reducing the fish runs. Even if logging were discontinued or modified today, it would take several years for the stream habitat to be restored. The Quinault Tribe began an artificial fish production program this past year to raise steelhead trout to stock their streams. The Federal Government has built a fish hatchery on the Quinault Reservation to produce anadromous fish to stock and restore fish runs to the Reservation. These artificial rearing programs will be largely negated if the stream's fishery habitats continue to be destroyed.

Aesthetic and Recreation Resources. In addition to the obvious impact of timber harvesting upon the natural beauty along fishable streams and upon the potential for general recreation enjoyment in areas now logged, areas yet subject to logging and the overall consequences to wildlife which might be harvested as a recreation-oriented enterprise must be considered. Our appraisal of existing conditions and of likely future conditions of these resources is not promising. Here again, the real and presumed desire to obtain revenues from all stumpage affects those presently less tangible values. The most critical remaining areas should, however, be subjected to further economic analysis than the short-term return from stumpage. We suggest that at least the allotments closest to the coastline may have present worth (in terms of future utilization of recreation enterprises) which seem to have escaped most of the allottees concerned. While it seems these allotments are presently...
I.

1. History of Allotting
2. Early Timber Harvest
3. Quinault Timber Sales Statistics
4. Timber Contract and Form
5. Indian Forest Laws

II.

1. Consideration of the Size of Logging Units
   (1) General desire of Indian owners to gain some immediate timber income.
   (2) Opportunity to practice under a plan of orderly cut-over of the forest.
   (3) Opportunity to gain some income for a wide group of allottees within an immediate period and within contract length period.
   (4) Efficiency of sale preparation and administration of larger and fewer sales.
   (5) High cost of building transportation system into the roadless area.

2. Consideration as to the period of time to complete the timber contract
   (1) Longer period allowed larger size (Sec. II.1.)
   (2) Time interval between cutting of adjacent stands to allow the timber stand to regenerate.

3. Consideration as to cutting practices
   (1) Initial development of the area to amortize costs of access construction required to make the timber merchantable.
   (2) Use of tree selective cutting to provide for sustained yield and protection of streams and scenic values.
   (3) Staggered clear-cut blocks.
4. Alternative plans and views as to timber harvest and provision for income.

   (1) Progressive harvesting of the reservation on a rotation of approximately 80 years with access by sale progression.

   (2) Sale as one or a few large units at the same time.

   (3) Purchase by the United States.

   (4) Incorporation of allotted timber holdings.

   (5) Allow individuals to sell timber by allotment.

III.

1. Stumpage determination formulas.

2. Source of data used to establish formula factors.

   (1) Selling Value

   (2) Cost

   (3) Profit Margin

3. Timber Sale Volume Estimation.

4. Consent of allottee for sale of timber and delineation of ownership boundaries.

5. Information to allottees as to actions on their timber.


7. Development of access to the timber.

8. Timber stand regeneration.

IV. Crane Creek and Taholah Contracts

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   (1) Alternate sale methods and decision for the large sales.

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(7) Consultation processes

(8) Stream treatment

(9) Aesthetic criticism

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2. Aloha Lumber Corporation Appeal

3. Decision of the Secretary of the Interior on the appeal

4. Appeal to the District Court and Appeal Settlement
5. Procedures arising from the appeal and decisions, and the settlement.


7. Quinault representatives' criticism of forest management.

   (1) Regeneration of land cutover
   (2) Stream treatment
   (3) Residues present after logging
   (4) Logging practices and timber required to be cut
   (5) Deductions for administrative expenses
   (6) Crane Creek and Taholah stumpage rates
   (7) Quinault Allottee Committee
I. History of Allotting

The Quinault Reservation started with a gross area of approximately 190,000 acres of which 175,000 acres were forested. Under the Allotment Act of February 8, 1887 (24 Stat. 388; 25 USC 331) the reservation was divided into 2,340 allotments of approximately 80 acres each. Allotting started in 1907 and by 1910 approximately 65,000 acres had been allotted. Due to timber consideration, allotting was stopped but was resumed in 1924 after the Supreme Court decision against the contention of the Government in the case of United States v. Tommy Payne (264 U.S. 446). The bulk of the allotting occurred in the period following the Payne decision and by 1934 virtually all the forested land had been allotted.

Indian Forest--Quinault, Bureau Indian Affairs, 1969.

2. Early timber harvest

In 1914, after the allotting of heavily forested lands had been stopped, a forest survey was planned and was carried out in the years 1915-17. The survey provided information essential to planning for logging operations and contemplated a plan for management as an integral forest property. Timber sales were initiated in 1920 and continued at a high level until the depression years of the 1930s. This cutting was generally a progressive clearcut in the area of
the reservation south of the Quinault River. Plans culminating in 1929 provided for the sale of the timber area north of the Quinault River in four large blocks. One bid was received on each logging unit but the bids were rejected by the Secretary of the Interior after the proposed sales were the point of extensive criticism. Cutting continued on the units previously contracted in the period 1920-28 and production was slowed to the economic pace of the time.

Reference: Same as No. 1.

3. Quinault Timber Sales Statistics

Over the period 1920-1971, the volume of timber cut under contract totaled 4,560,000,000 board feet with stumpage value of $51,760,000. By the mid-1940s, approximately one-half of the reservation had been logged over, principally under the large contracts executed in the 1920s. Timber sales in the period of the 1930s and 1940s were entirely in the form of sales of individual allotment timber contracts. In the period approximately 250 small sales were executed involving timber cutting of approximately 168,000,000 board feet. In the period 1961-71, timber cutting also proceeded under Special Allotment Cutting Permits. This volume totaled 170,000,000 board feet under 100 individual permits. Major timber production in the period 1950-71 was from the presently active long-term contracts—Taholah Logging Unit, approved in 1950, and Crane Creek Logging Unit, approved in 1952.

Reference: Schedule attached.
4. Timber Contract Form and Content

The form of contract and content is illustrated by the samples attached. The basic contract has remained much the same and, as a standard attachment, included the General Timber Sale Regulations, Form 5-502, approved April 10, 1920. An Allotment Contract (Form 5-489) was also executed for each of the allotments grouped under a general contract and was used along with Form 5-481 for the numerous individual allotment timber contracts of the 1930s and 1940s. Contracts executed from approximately 1960 used a printed form (Form 5-611 or 5-612) with an attachment, Standard Timber Contract Provisions, Form 5-610. Each contract may have had provisions special to the contract. With the advent of scaling by the Grays Harbor Log Scaling & Grading Bureau, a contract attachment stating the volume determination procedure became a standard attachment to Quinault contracts.

Reference: Examples of Quinault contracts
General Timber Sale Regulations
Volume determination contract section

5. Indian Forest Laws


II.

1. Consideration as to size of logging units.

   (1) General desire of Indian owners to gain some immediate timber income.

As could be expected, upon allotment the recipients thereof desired to obtain income from their timber holding. Since the reservation timber land was in an area with little access development, the immediate demand arose from the allottees with the more accessible timber. The several large initial sales of the 1920s were predicated upon generating timber volume and value that would sustain the large costs of access construction. As such access was constructed, the access relationship of the more distant adjacent timber stands were changed so a continuing demand for income from succeeding groups was present. Upon the success of cutting in the initial large units, the idea of contracting all the reservation timber stands for cutover became popular. An early result of this idea was the attempt in 1929 to contract all the area north of the Quinault River in four concurrent large timber sales. At the same time requests for the patent, with the purpose of timber reclamation, was being advanced. The depression years and World War II acted as a depressant on the contract idea but it gained popular support again in the latter 1940s and, eventually, resulted in the Boulder Creek, Crane Creek and Taholah contracts. The Queets area (the remaining approximately one-third of the area north of the Quinault River) did not receive a bid and
was then subject in its own particular history. Evidence of the

desire that all ownerships obtain some immediate income was the

criticism of the single Taholah proposal of 1946-48, the requirement

of advance payments, and the cutover in a period considerably less

than a rotation/[based on ei]]

Reference: Report on proposed Lunch Creek, Joe Creek, Raft

River, and Cape Elizabeth Logging Units, 1929.

Conference notes Taholah Agency Meeting, March 6, 1947,

and District Forester Report of Meeting, Mar. 12, 1947.
II.

1. Cont.

(2) Opportunity to practice under a plan of orderly cutover of the forest.

The forest survey of 1915-17 was conducted with the view of developing forest management plans for the reservation on sound forestry principles. The resumption of allotting subsequent to the Payne decision was very discouraging to Foresters concerned. The clamor for individual interest income resulted in the contracting of five large units to be cut concurrently. These contained the bulk of the timber stands south of the Quinault River and provided for cutover in approximately 18 years, whereas the rate of cutover under an 80-year rotation would have doubled the time. At least the large units offered a reasonable control of the cutting progression. In actual practice, the cutover of the units proceeded much slower than contracted and tended to approach the proper time interval. The cut was a progression of clearcut, as was the general practice of the times. With the slower rate of cutting, regeneration of the stand by natural means was generally sufficient; however, it was recognized that a program of reforestation by plantation was also necessary to supplement the natural regeneration. In 1927-28 a second group of contracts of moderately large size were contracted and cut over concurrently with the much larger sales.
previously contracted. During the 1930s and 40s, the volume cut declined far below that of the 1920s.

In approximately 1935, the practice of very small sales on individual allotments became the contracting pattern with several hundred eventually occurring. The practice of individual tree selection was also introduced as a cutting method and was a point of contention and argument for many years. Initially, the large volumes contracted and the multiplicity of ownership under the large contracts, directed the Forestry program as one of the services to the contracts. Eventually, the multiplicity of individual allotments contracted had a similar effect even though the volume being harvested from the reservation had a large decline.

The investigative and management planning side of Forestry practice was relegated to a minor effort intermittently inserted as other work demands allowed. All during these years, there was continuing examination of the Forestry program in terms of program funding in relation to the administrative fees collected with the result that staffing was controlled at a minimum level and this was clearly the intent of Congress.

Letter of July 9, 1928 - J. P. Kinney.
Letter of May 5, 1936 - Lee Muck.
II.

1. (3) Opportunity to gain some income for a wide group of allottees within an immediate period and within contract length period.

The contracting of timber in volume occurred at three points in the Quinault cutting history:

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated volume</th>
<th>Board Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920-23</td>
<td></td>
<td>1,478 MM</td>
</tr>
<tr>
<td>1927-28</td>
<td></td>
<td>116 MM</td>
</tr>
<tr>
<td>1950-52</td>
<td></td>
<td>1,201 MM</td>
</tr>
</tbody>
</table>

As proposals were made by Forestry, they were met with the question as to how many individuals would be affected; and the groups who were not affected would request equal consideration. The net result was then a group of sales covering a major portion of the reservation presented for sale and cutting concurrently.

From the beginning, the timber contracts provided that the purchaser make advance payments upon the completion of the individual allotment contracts grouped under the general contract. Until 1950, the long-term contracts provided a series of advances totaling 30 percent within six years and 50 percent within nine years. Recognizing the urgent demands for immediate income prospects, this was changed to 25 percent within 30 days and 50 percent within six years.
Accordingly, the already present restrictive condition of prospective purchaser ability to invest capital in advance payments was increased. Because of the larger investment and the variance of cut-out experience by allotment, the estimated volumes were held to conservative levels to reduce the risk that advance payments would exceed actual timber present.

(4) Efficiency of sale preparation and administration of large and fewer sales.

Already with the initial allotting, the timber sale administration was to be one of intensive record and field activity. With the allotting of the remainder of the reservation, the die was cast that all timber sales would be similarly complex. It was natural and necessary that the forest administration seek any of the remaining alternatives that would provide some efficiencies. The major alternative available was a few large sales. Even so, the intensive record of individual scale and monies, establishment of boundaries, and control of log taking remained and left little time for other management activity.

Timber sale administration can be divided into (a) accumulation of data and information on the proposed sale into a Forest Officer's Report, (b) advertisement and contracting, (c) logging planning, (d) sale operation and regulation activity, (e) scaling, (f) record of timber
volume and money, (g) rate redeterminations, modifications, etc. Large sales provide the opportunity to handle certain of these on a group basis and organization of the intensive individual allot­ment detail for efficient handling. In terms of volume of timber harvested, the efficiency differential can be several multiples. Reference: Letter of July 4, 1929--James A. Howarth. Letter of May 19, 1931--C. J. Rhodes. Letter of June 1, 1947--McKeever, Wilcox

(5) High cost of building transportation system into the roadless area.

From the onset, plans for logging the Quinault Reservation were dependent upon extension of railroad systems which were the access to markets. These extensions would be solely for the transport of logs with the accompanying high cost against stumpage. It was therefore accorded equitable that the system cost be borne on a broad basis; however, the higher volume resulting would reduce the risk due to development cost and increase the selling potential. The cutting pattern of the times (progressive clearcut) also was in part the need to amortize the high construction cost in a relative short term. With the advent of national and regional attention to highway construction and the improvements in truck equipment, highways became more and more a system connection to market; however,
the bulk of the uncut Quinault lands were still relatively roadless and again the construction was to be borne by the stumpage alone.


II.

2. Consideration as to period of time to complete the timber contract.

Longer period allowed larger size.

(Unit size is considered in the previous Section II. 1.)

Time interval between cutting of adjacent stands to allow the timber stand to regenerate.

From a regeneration view, the time interval is solely to provide seed source to the areas as they are cutover. Both progressive clearcut and staggered clearcut blocks appear to give success. The progressive clearcut areas, however, experienced successive fires and lack the effect of green timber fire-breaks present in the staggered block system. The staggered block became the desired system. Ideally to regenerate itself completely, the cutting period would be long enough to have seed bearing trees regenerated on the first series of staggered block cutover to seed the last series cutover.
3. Consideration as to cutting practices

(1) Initial development of the area to amortize costs of access construction required to make the timber marketable.

Logging in the 1920s was characterized by the use of railroads whose construction costs required large volume of timber per mile of construction. Such was the conditions present on the Quinault; access and logging of the timber would bear such costs only by clearcutting as the rail system progressed into the timber areas. The factor of timber sale size combined with clearcutting to make the timber merchantable.

Reference: Same as II. 1. (5).

(2) Selective Cutting Methods

Emphasis on selective cutting in the Quinault forest came with the regulations of 1936 which derived from the Indian Reorganization Act. Initial application included two patterns: (1) leaving of trees for stream and scenic protection and effect, (2) removal of a minor part of the timber stand with planned return periodically for additional cuts (individual trees selected for cutting). These methods (generally applied to East Side forests of the ponderosa pine region) backed by official policy was proved to be inapplicable to the Quinault forests due to the blowdown eventually experienced. Whereas, special treatment was desired for stream and scenic values leave strips and partial overall cuts were not the answer.
to the blowdown that would eventually occur. While special treatment is desired in regard to the scenic and stream values, it lies in practice other than just application of individual selection tree cutting.


(3) Staggered Clearcut Blocks.

The staggered clearcut falls within the definition of selective cutting. The words selective and selection as applied to timber cutting have been subject to hairsplitting interpretation; and as presently defined, conflict with previous understandings of the words.

The progressive clearcut system evolved to the staggered clearcut block system as the result of several factors, both economic and silvicultural, but was possible by the economic changes of (1) technological advance in the design of road building and log hauling equipment and (2) ratio of product value to cost of production. Another economic effect was that the partial cut allowed quicker progression over the logging unit area and thus opportunity for more allottees to share in the earlier returns from stumpage. The silvicultural aspect considered the fire-break effect of residual
green timber blocks and the more positive seed source. From an aesthetic view, the large desolate cutover aspect was diminished.

Logging Plan--Crane Creek Unit--1971.
Forest Officer's Report Proposed Taholah, Queets, Crane Creek Logging Units--1948.
II.

4. Alternative plans and views as to timber harvest and provision for income.

(1) Progressive harvesting of the reservation on a rotation of approximately 80 years with access by sale progression.

The progressive harvesting was the general pattern of the logging units contracted in the 1920s. It depended upon extension of the railroad logging systems that logged the area south of the Quinault River on through the remainder of the reservation, and further, that the regional cut would progress beyond the reservation into the untapped timber resources of the Olympic Peninsula held in National Forests. The rejection of the bids on the four large Quinault units in 1929 followed by the depression and World War II halted this expansion and completion of the cutover of the reservation.

(2) Sale as one or a few large units at the same time.

This was a repetition of the progressive harvesting idea advanced again strongly after World War II. There was reluctance to expose all the remaining timber in one sale. The proposals to make a sale of part of the area at a time (even [then a large sale]) met with resistance on the basis that all allottees with timber holdings in the relatively untouched area north of the Quinault River should derive prompt benefit of whatever pattern of sales was decided upon. Eventually, agreement was to divide the area into four logging units.
(3) Purchase by the United States.

In 1939 the Department of the Interior submitted a draft of proposed legislation for the government to acquire the lands of the Quinault Indian Reservation. Presumably, the lands would then be put into national park or forest status. The legislation did not receive attention beyond the proposal review.

Reference: Letter submitting draft of proposed legislation and attached proposed bill—Ickes—May 19, 1939.

(4) Incorporation of allotted timber holdings.

Various ideas centered on the pooling of the timber interests and issuance of shares were advanced from time to time. In 1944 the Acting Director of Forestry suggested an organization which might be named the Quinault Timber Association. Similar ideas had been expressed over the years as a solution to the regulation of income to all the timber owners and necessary support was never attained.

Reference: Letter July 7, 1944—J. D. Lamont

(5) Allow individuals to sell timber by allotment.

With the reduction of timber sale activity in the 1930s, individual allottees were able to locate demand for readily accessible timber. Literally hundreds of such sales have been made. Due in part to the use of selective logging which removed a minor part of the timber stand the enforcement of selective logging, there was allottee contention that they be allowed to enter into sale of their timber without
government regulation or contracting. This movement was ended in the case of Eastman vs. United States. In the 1960s the provision for issuance of Special Allotment Timber Cutting Permits was initiated. This permit allows allottees who are considered capable of handling their own timber business affairs to log and/or sell their timber upon issuance of the permit to them. Practically all sales of timber on the Quinault are now by special permit.

References: Letter of May 15, 1936--Lee Muck
Letter of April 9, 1938--N. O. Nicholson
Letter of August 12, 1939--Wm. Zimmerman
Letter of October 3, 1939--Collier
Letter of March 8, 1940--Zimmerman
File Eastman vs. United States
District Court Civil No. 45
Circuit Court No. 9558
Form 5-613 Special Allotment Timber Cutting Permit
III.

1. Stumpage determination formulas.

There are several formulas that have had use in appraisal of timber stumpage. The formulas are similar in the basic factors and vary in the method of determining the profit margin. Thus:

\[ \text{Stumpage} = \text{Selling Value} - \text{Costs} - \text{Profit Margin} \]

1a) Valuation Factor - profit margin is calculated by taking a part of the conversion return.

1b) Overturn Method - profit margin is calculated on a percent of estimated cost.

1c) Profit Ratio Method - profit margin is calculated on a percent of estimated cost and stumpage (stumpage is considered a cost).

1d) Selling Price Ratio - profit margin is expressed as a percentage of return on sales and converted to a profit ratio.

1e) Investment Approach - profit margin established on the basis of capital engaged.

All these methods have been used by public agencies to arrive at stumpage appraisal although the valuation factor appears to have been used only by the Bureau of Land Management. The Bureau of Indian Affairs use has followed the U.S. Forest Service practices—from use of the investment approach in the 1920s to use of overturn to present use of the profit ratio. The BLM and USFS currently
indicate they use the selling price ratio concept to arrive at the profit margin. 


III.

2. Source of data used to establish formula factors.

(1) Selling Value
Quinault appraisals since inception of timber sales have used log selling prices to calculate stumpage prices. The coastal marketing area of which Quinault is a part has historically dealt in log values and log markets. Collection of such data by foresters was an integral part of the appraisal of stumpage. Early sales appraisal relied on the log market data gathered from their own inquiry and compiled. Although the Pacific Northwest Loggers Association (PNLA) eventually became a published source of log market data that was used to appraise stumpage, it did not exist in the Grays Harbor area in the 1920s. When the PNLA ceased operation, the Industrial Forestry Association (IFA) began collecting and publishing similar log market transaction information.

The USFS also used log market prices in their appraisals until approximately 1960 when they changed to end-product appraisal. The BLM has traditionally used ponde log values. The BIA continues
to use log market value for Quinault sales. This is advantageous to the allotted owners since the market reflects the export prices and these have been a dominant factor in the rise in appraised stumpage values. The USFS and BLM timber sales are restricted as to export and thus tend to reflect a domestic price. In comparison State of Washington sales are not export restricted but by law require use of domestic log prices in appraisal. Log prices are quoted by grade and the quality of a given timber sale is directly reflected in such application to the appraisal.

Reference: Mounts Logging Unit, Report on Readjustment of Stumpage Prices, April 1, 1929 and March 22, 1937; IFA Composite Log Sales Analysis.

(2) Cost

Collection of costs applicable to timber being appraised was a responsibility of the local appraising organization. Over time the collection has developed from individual efforts to a system utilizing specialists. Collections by BIA personnel appraising timber has been from purchasers of Indian timber, pursuant to a contract clause, and contact and inquiry to logging businesses in the reservation vicinity. Since appraisal was to log prices only, logging costs were applicable or needed. Such collections followed the practices of the times and the recognized accumulation procedures. USFS cost collections were viewed as a reference and comparison facility and became a source of specific costs as their information became a formal regional publication. With the revision of the Crane Creek and Taholah stumpage rates
in 1960, the USFS cost guides were adopted for standard use. Specific cost items not in their cost guide have been developed by the BIA or obtained from other recognized cost sources. Use of this method has been reinforced as a result of purchaser appeals, Congressional inquiry, Secretarial decisions, and purchaser resort to the Courts to contest rate revisions. Most recently, an Arbitration Board established by Quinault officials and Aloha Lumber Corporation, ruled on the cost allowances.

The USFS cost guides derive from their program of cost collection from a sample of their purchasers and is revised on an approximate six-month's interval to reflect current cost collections from purchaser closing fiscal year records. The BLM uses costs derived from their direct time studies, and a variety of sources such as: the USFS, BIA, Pacific NW Experiment Station, Labor Union basic wage rates, manufacturer purchase prices and operating expenses, etc. The State of Washington gathers local purchaser cost data and uses it with cost adjustment tables of the USFS generally. Certain cost allowances are empirically developed or have a standard formulation.


(3) Profit Margin

As previously discussed, the manner of obtaining the profit margin is the difference between appraisal formulas. There are
various means of determining the factor as related to any formula. Among them are (1) published findings of the Federal Trade Commission and Securities and Exchange Commission, (2) examination of purchaser financial statements (3) special industry studies, (4) timber sale bidding experience. Appraisers may use one or all in arriving at a factor, and usually do, although one may be the rule and the others used to compare and substantiate. The profit margin is composed of several allowances with profit the major one. Others are risk, income taxes, interest on borrowed capital.

Reference: Forest Service Manual, Title 2400 Timber Management 2423.61, .62, .64.
Forest Service Handbook of Timber Appraisal, Appendix 417.2.
BLM Instructional Memo No. ORE 70-86 and Enclosure.
III.

3. Timber Sale Volume Estimation

In 1915-17 a valuation survey was made of the Quinault Reservation to give timber volume estimates and gathered data for contour mapping of the area cruised. This survey was the basis of the estimated volumes of Quinault timber sales. It was recognized after a period of cutting experience that the volume being cut would exceed the cruised volumes. Also, due to blowdowns early in the 1920s, there was reasoning applied that cruise volumes might be excessive. No succeeding extensive cruise of the reservation timber was ever made; however, the Crane Creek and Taholah Units were recruised in 1960 after the contracts had been in effect approximately 10 years. Since staffing for Forestry was always under critical review as to productivity and appears to have had the purpose of staffing at numbers minimal to the obligations under the timber contracts, the manpower to and to deliver the variety of small services requested the Indians, recruise the reservation was lacking.

The volume cut under the timber contracts beyond the sale estimates had limited effect on appraisal since average industry costs were used without much adjustment as to sale character. The amount of timber taken was measured by actual scale and payment made accordingly. The contracts also contained provisions for price adjustments which, among other factors, would consider the additional
volume to be cut. The increase in sale volume over estimates were also due in part to the changes occurring in respect to merchant-ability of a particular timber stand.

References: Technical Bulletin No. 733, Dec. 1940
Inventory Crane Creek Logging Unit, Jan. 1960
Inventory Taholah Logging Unit, Jan. 1961

4. Consent of allottee for sale of timber/delineation of ownership boundaries.

A part of a proposal for sale of timber of a given logging unit would be the determination of the timber lands included in the unit, mapping of the land ownership and listing the owner or owners of each allotment and the interest of each. Such a record is the basis for solicitation of power of attorney; giving consent of the timber owners to the proposed timber sales and the administration of the separate timber interests as to volume taken and money proceeds.

The power of attorney solicitation is usually a formal mailing and is enclosed with information regarding the proposed sale of timber. In many cases the individuals may execute it at the Government offices in lieu of a mailing.

The marking of the boundaries of each allotment on the ground is a routine timber sale duty of Forestry personnel. In the interests of freeing personnel for other important sale duties, latter day timber contracts provided for the purchaser to locate
and clearly mark the boundaries and the Forester then had the
duty to check the purchaser for compliance and accuracy. At
such time the marking requirement became a cost allowance to
the purchaser. Under the best of conditions, judgments as to
"live" trees are required. Where timber is mistakenly taken,
corrective action to reconstruct the proper division would be a
routine practice.

Reference: History of Crane Creek and Taholah Timber Sales
Exhibit C and transmittal letter copies—
John Libby Dec. 14, 1956
Form--Power of Attorney for Sale of Allot. Timber

[Inset]
5. Information to allottees as to actions on their timber

Information to allottees is provided by a variety of means including, telephone conversations, written telephone followup, office visits, field trips with individuals, documentation to the allotment file, specific correspondence, general notices.

The telephone inquiries are probably the most frequent method used. Some calls are documented but most are not. Generally, the telephone inquiry is on the subjects of logging schedule and potential or current income prospects.

The formal record of cutting contained in the scale report is filed only in the allotment number file. Copies are issued to individuals only upon request. This is due to the multiple ownership of allotments; many have over 100 owners.

Since 1957, a Quinault Newsletter has been issued to give general information. Forestry items include regular notices concerned with the revision of stumpage rates on the Crane Creek and Taholah Units, or acts concerning the units of general interest. These items are prepared by members of the Branch of Forestry and submitted to the Superintendent for inclusion in the Newsletter or for a special issue of the Newsletter. Occasionally, these items may be published in the local newspaper, but in view of Nationwide dispersal of timber owners, would not reach many. Radio announcements have also been made occasionally.

References: Copies of Newsletters

Samples of Allotment File content
III.

6. Scaling procedures and control of allotment interests

The log production from Indian lands has traditionally been scaled by employees of the BIA. The method employed is stated in the General Timber Sale Regulations of 1920 and the Standard Timber Contract Provisions of 1960. These employ in general recognized scaling rules and techniques. Scaling frequently reflects the practical consideration of the physical conditions that exist at the scaling location. Differences as to specific application of rules have occurred and special rules are used where specifically provided by contract or regional rules.

Where Indian timber contracts have provided for and used the services of Scaling Bureaus, or scaling by another Federal agency, the BIA has previously entered into agreements as to how the scaling is to be accomplished and the scaling rules to be followed.

The West Side (Coastal) scaling procedures have required, due to the many land ownerships of the area, that logs be marked by a registered brand as they are yarded so that ownership is defined. Such practice fitted the multiple ownership of Quinault. The log brand is recorded in the scaling action. The handling of the scale sheet recording the log is prescribed by intensive instructions as to record and payment to the stumpage owner. The procedural flow is as follows:
(1) A logging plan consisting of several logging blocks is prepared for each logging year.

(2) Log brands are assigned by allotment and the logs are branded as they are felled and bucked according to location by property lines.

(3) Logs are yared and loaded and a truck ticket prepared listing the number of logs and brand.

(4) Upon delivery to the scaling point, log load is scaled and recorded by brand.

(5) Scaling Bureau issues scale record documents in required detail.

(6) Scale documents are posted to provide volume total and total by allotment.

(7) Scale report by allotment prepared and monthly Report of Timber Cut totaling all scale reports prepared.

(8) Scale reports posted to Timber Money Record.

(9) Journal Vouchers prepared for distribution of monies to appropriate accounts.

Parallel with these actions are control and audit processes which include technical and accounting check of the actions, estimates of timber cut and not scaled, and advance cutting, collection of advance deposits from the purchaser.
Accepted practice is to use the scaling systems and rules common to the market area as the selling values and costs used to determine the conversion return as based on the expectation of the market. Changes in scaling rules which effect the log value reflected in the market as the rule becomes general use. Where a long-term timber contract has provisions for re-examination of stumpage rates and inserts current market value which reflects the common scaling rule, a rule of the contract can be changed by the realization adjustment, and subsequent use of the common rule can be had without further adjustment or concern.

Reference: Letter of Nov. 24, 1925—Lee Muck
Scaling Agreement between BIA and Grays Harbor Scaling Bureau
General Timber Sale Regulations
History of Scaling Practices—June 1967

III.

6. Development of access to the timber. Hickman
7. Timber Stand Regeneration. Hickman
Pages 26a through 26d
III.

Development of access to the timber.

The early Quinault sales in the period 1920-30 were mainly railroad logged. Private logging company small railroads such as the Hobå Timber Company railroad and the Aloha Lumber Company railroad connected at the reservation boundary at Moclips to the Northern Pacific Railroad and access to the Grays Harbor Market. In the industry railroads held forth as the primary log mover until the late 1930's.

Rail construction was progressive into the areas to be logged. At times the rails might be laid ahead to the back of a valley or natural unit and the logging proceed from the back out. As rapidly as logging was completed, the back rails could be lifted and used for new spurs. The railroad ties were nearly always cut in the area and were seldomly removed when the rails were lifted. Timber considered nonmerchantable was commonly used as railbed fill, particularly in the swampy areas encountered.

The World War II years saw the rapid development of heavy trucks for hauling and machinery for road construction and trucks became a more economical and efficient means of log transportation. As late as 1936 the cost per thousand feet of timber for railroad logging was considered low enough to justify railroads rather than trucks for large volume operations but there was a general tendency
to replace spur lines with tractors and truck operations.

With the development of truck hauling the mainline roads built especially for trucks soon became permanent roads. With the road development a new approach to forest land management gained industry-wide acceptance. This was a form of sustained yield using clear cutting by staggered blocks so as to provide a positive seed source for regeneration of the cutover area.

Logging railroads eventually began to disappear; however, in 1956 Rayonier began rehabilitation of its mainline system. Today Rayonier is one of the few logging companies in the Grays Harbor Area still in the railroad business, using their mainline from the Quinault Reservation to Grays Harbor. Rights-of-way for U.S. Highway 101 through the reservation were acquired around 1938 and with this the trend to trucks was permanent.

Timber stand regeneration.

In the early logging in the south side of the Quinault Reservation, BIA Foresters considered that natural regeneration would be all that was necessary to keep the reservation restocked. However, the contiguous areas of slash were very susceptible to fire and the protection system was not well developed. In time, successive fires occurred in cutover areas and the natural regeneration was destroyed. and delayed.
In the 1920's the Foresters recognized that planting would be necessary to restock the forest. Chief Forester J. P. Kinney in 1928 wrote that it seemed feasible to use part of the income from timber sales to provide for future productivity. It was recognized by Mr. Kinney at that time that the Allotment Act would annul plans for the well-ordered restocking of Quinault forest lands. For many years, until the APW days of 1963, planting was not done on allotted lands as it was policy that Federal funds would not be used to reforest the individual's private land. An attempt was made in the early thirties to have cut-over allotments deeded to the tribe for planting and managing, but very few allotments were ever turned over to the tribe for this purpose. The Spruce Orchard Plantation in 1933 and 1934 was the result of some of these land transfers. Severe fires destroyed this plantation and it was necessary to replant in 1941.

Probably the earliest successful planting was that accomplished by the Agency Forestry staff in 1929. For this effort they hand-pulled 3,500 seedlings from a road right-of-way and planted 30 acres of an area known as the Quinault Forest Experiment Station.

In the next year or two at least 45,000 seedlings were obtained and planted in the experimental forest. Forest Supervisor Henry Stiles recommended that at least $2,500 be allocated to the Agency for additional work and nursery stock.
Other reforestation activity since that time includes the Quinault 10-year Planning Program in 1944, which recommended land ownership consolidation so that planting of cut-over lands could be accomplished; Proposed Tree Planting Projects, Quinault Indian Reservation, 1946; Reforestation Report 1967; Raft River fire planting under contract, 1968; and currently the Federal funded contracts with the Quinault Tribe for planting.

It appears from research of the files that motive was never lacking, only the program appropriate to accomplish the planting.

With the practice of clearcutting by staggered blocks and organized fire protection, the natural regeneration of cut-over areas has been largely successful.
IV. Crane Creek and Taholah Contracts.

1. Presale discussion and preparation.

   (1) Alternate sale methods and decision for the large sales.

   The area north of the Quinault River of which Crane Creek and Taholah are approximately two-thirds was proposed and advertised for sale as early as 1929, and bids were actually received but were rejected. In the early 1940s, interest was renewed and eventually evolved to the proposal of the Taholah Logging Unit in 1946. Various objections to the proposed sale were voiced and the alternatives of a cooperative association, Indian enterprise, a larger overall unit were forwarded and discussed. Subsequently, the proposal was made entitled the North Quinault Logging Unit. This would encompass all the area north of the Quinault River and satisfy the main objection to the Taholah proposal, i.e., that only a portion of the allotted interest of uncut timber would realize any stumpage return in the immediate future.

   The Bureau of Indian Affairs was reluctant to undertake sale in one unit, and finally decision was arrived at to divide the area into four units, Taholah, Crane Creek, Queets, and Boulder to be advertised for sale at the same time.
IV.

1.

(2) Solicitation of allottees consent by P/A.
Realizing that any large sale of timber or sale of the remaining uncut area was a complex undertaking, the task of checking inheritance records and location of allottees and heirs was carried forward while the sale proposals and alternatives were being discussed. Some 1,380 allotments with 2,500 interests were involved. By the time the Taholah, Crane Creek, Queets proposal was presented in 1948, approximately 60 percent of the allotment owner interests had signed consents to the sales. Information to the allottees was presented in meetings and individual inquiries, both in person and by letter. The level of interest among the timber owners was high with resultant wide discussion and dissemination of information. A vast majority favored prompt sale of the timber.

(3) Advertisement and subsequent contracting.
The Crane Creek, Taholah, Queets, and Boulder Creek Units were advertised for sale in 1949. One bid for the Crane Creek Unit at advertised rates was received by Rayonier Incorporated. They subsequently chose to forfeit the bid rather than execute the contract; this was no doubt due to the decline in log prices during 1949.

Under authority of 25 CFR __________, the Boulder Creek Unit was sold by negotiation to the Wagar Lumber Company and the Taholah
Unit was similarly sold to the Aloha Lumber Company. In 1952, the Crane Creek Unit was again advertised for sale. Rayonier Incorporated submitted the only bid and contract in June 1952. The Queets Unit was not readvertised at the time and treatment of the area became a pattern of small sales of allotments that were the more accessible and of better quality. The fee patent and supervised sale policy of the BIA also provided outlet for timber owners to market their lands upon which the timber was the principal value.

Reference: Forest Officer's Report Proposed Taholah, Queets, Crane Creek Logging Units - 1948
Forest Officer's Report Taholah Logging Unit - 1946
Conference notes Taholah Agency Meeting - Mar. 6, 1947
District Forester Report of Meeting - Mar. 12, 1947

(4) Contract terms for specific purposes.

(a) The advance payment schedule required 50 percent payment of estimated value within six years with 25 percent at execution of the allotment contract subsidiary to the general contract.

(b) Stumpage rates to be paid in each succeeding quarter determined on basis of log prices and application of fixed ratios to the log prices.

(c) Ratio changes as altered situations would warrant.

(d) Review of stumpage rate in event PNLA log prices are not representative or are unavailable.

(e) The Crane Creek contract provided for possible scale by a log scaling bureau.

Reference: Crane Creek and Taholah Timber Contracts.
IV.

2. Contract Administration Procedures

(1) Adjustment of stumpage rates

Procedure is stated in Section 7 of the contracts and provides for quarterly adjustment of stumpage rates by application of the listed ratios to the price of logs as published by the Pacific Northwest Loggers Association (PNLA). This quarterly adjustment feature of the contract was lost when the PNLA ceased to publish log prices.

Reference: Taholah and Crane Creek Timber Contracts

(2) Adjustment of stumpage ratios

Procedure is stated in Section 10 of the contracts and provides for the Approving Officer to establish new ratios when the altered situation warrants. The new ratios are then applied as in Sec. 7 to establish the quarterly stumpage rates. This feature was also lost when the PNLA ceased to publish log prices.

Reference: Taholah and Crane Creek Timber Contracts

(3) Scaling change to use of a Scaling Bureau

The Crane Creek contract provided for such scaling and the Taholah contract was modified March 21, 1956, to allow use of a Scaling Bureau. The change required the purchaser to enter into an appropriate agreement with the Scaling Bureau. A corresponding scaling agreement between the Bureau of Indian Affairs and the Scaling Bureau was also executed.

The scaling change also considered the differences between BIA and Scaling Bureau scaling rules and this effect on the volume of scale. Varying opinion has been expressed on this effect and the BIA settled on a 12 percent difference, affirmed by a study. Prequisite adjustment was made in a ratio adjustment in 1955 and carried forward in the subsequent values used in calculation of stumpage rates.

(4) Modification for salvage activity.

Within a few years after start of logging on the Taholah Unit, it was evident the products defined in the contract did not cover the smaller size material encountered. All parties were interested in salvaging this material that would otherwise be waste and a modification was completed to provide for the taking of materials for pulpwood production, shakeboards and shingle bolts, and small cedar poles. This production was optional by the purchaser. The modification also provided for scaling by a Scaling Bureau. A similar modification for salvage was executed on the Crane Creek Unit in 1959; however, the scaling part was already a provision of the Crane Creek contract. Production under the salvage modifications have never reached expectations and have been sporadic.

Reference: Contract Modifications Crane Creek and Taholah

(5) Use of grade information.

Original grade estimates were set out in the Forest Officer's Report proposing the Taholah-Queets-Crane Creek Logging Units. By 1957, sufficient data on grade recovery had been accumulated to adjust the original estimates. The grade data had been expanded from each
succeeding year of logging and is recorded for each year and accumulative for all years to date. The grade information was applied to log prices using the latest 3-year combined data. With the Secretary's decision of the 1966 Taholah appeal, the Taholah established grade prices are applied on a monthly basis to the log production to arrive at the monthly stumpage rate.

References: Crane Creek and Taholah Grade Recovery Record
PNLA Publications

(6) Logging Cost Information

The original appraisal and subsequent rate revising actions used cost information the result of study of purchaser cost records and experience in the economic area. The collection of this information became more formalized and specialized to what is essentially present-day methods. In the 1960 rate revision, the BIA adopted the USFS Region 6 cost guides (West Side). In prior revisions they had been used for comparison purposes and for certain specific items of cost. Transportation costs were also standardized in the 1960 revision to use of the State of Washington tariff tables. Items of cost not available otherwise are determined by separate cost determination of the BIA.

References: USFS Cost Guides
State of Washington, Tariff Tables

(7) Logging Plans

Section 22 of the Crane Creek contract specifically provides that the purchaser shall submit a plan of his logging operations for
each contract year. Section 2 of the contracts and Section 9 of the General Timber Sale Regulations also bear on timber to be cut and logging progression, and while less specific is used to require logging plans for the Taholah cutting. Initial guidelines for the preparation of logging plans were developed from the inception of the contracts. They provided that the purchaser would submit a plan for the year's cutting to be reviewed by the Officer in Charge. Approval of the finalized plans is made for the Taholah Unit by the Superintendent; for the Crane Creek Unit the Area Director. The plans have been flexible to allow changes in areas of logging to meet market conditions, income needs of individual allottees, and the salvage of timber damaged by blowdown or fire. At the same time, the economics of construction of the access to the timber stands and the staggered block cutting requirements limited the choices available. In determining both the road development and the block layout, purchaser and Forestry personnel maintained close field contact and examination so that the plans, when formalized and presented for review, contained by and large consensus already reached.

The key document to the formal presentation was the map of the logging unit showing logging and road development progression and the proposed new cutting blocks and road layout. As time passed and issues arose, the formal documents became more extensive and various field data listed. The map, however, remained the principal document. At present,
the logging plan has become an intensive document developed and reviewed with Indian representation, purchaser and BIA input. The plan investigations also serve to obtain factors necessary to the use of the U.S. Forest Service logging cost guides and the revision of stumpage rates.

Reference material--

Maps by year
Superintendent to Area transmittal - Crane Creek
Area to Superintendent approval
Superintendent to Purchaser approval - Taholah

IV.

3. Contract Administration Problems and Controversy

(1) Determination of change - Ratio Adjustments

The Crane Creek and Taholah timber contracts provided initial rates (Section 6) and that these rates would be adjusted quarterly (Sections 7, 8, & 9) by application of the listed ratios to the log prices as published by the Pacific Northwest Logger's Association (PNLA). This quarterly adjustment feature was lost when the PNLA ceased to publish log prices in November 1962.

In addition to the quarterly adjustments provision made for adjustment of the ratios (Section 10) by the Approving Officer when an altered situation warranted. This section language received varied interpretation. The purchasers held that only major changes in economics should be considered; however, the view of the BIA that changes such as costs,
log prices, in addition to other changes are the proper considerations and this view prevailed and was presumably accepted. The purchasers, however, retained opinion on various aspects of the ratio changes while accepting them.

(2) Change in log market information source - Revision of Stumpage Rates.

With the dissolution of the PNLA November 13, 1962, a new source of log price information was required and the decision of the Industrial Forestry Association (IFA) to publish log prices was welcomed. The stumpage rate change procedure moved to Section 11 of the contracts, which stated rates would be revised "in accordance with the trend of economic conditions in the West Coast logging and lumbering industry (Taholah) and West Coast forest products industries (Crane Creek).

These controversies subsequently developed:

   a) Purchasers maintained that the IFA was essentially the same as the PNLA so that stumpage rate changes should continue to be made under Section 10.

   b) The difference in wording "logging and lumbering" versus "forest products industries" was noted by the purchasers and in their interpretation required measure by different means.

   c) The same question of the application to major changes only, was presented by the purchasers.

All of these differed from the BIA view which was sustained in the subsequent revision actions and the BIA view has now become accepted
without the recurring controversy, although the purchasers remain as holding their own opinion.

Upon tentative decision based on examination of indicators that economic conditions have changed to an extent to warrant revision of stumpage rates, a report is prepared entitled "Trend of Economic Conditions Relative to Revision of Stumpage Rates." This report is presented to the Approving Officer with recommendations as to proceeding under Section 11 of the timber contract. The purchaser and Indian representatives are advised and a period of consultation is established. The report and other information is supplied the parties. Upon conclusion of the consultations required in the revision process, recommended stumpage rates are presented to the Approving Officer which become effective upon his notice to the purchaser and the Indian representatives.

The report prepared is designed first to examine information reflecting the economic trend and, second, to calculate indicated revised stumpage rates.

The processes, ratio changes using PNLA log prices, and revised stumpage rates using IFA log prices have been characterized by intensive and continuing contention between the purchasers and the Bureau of Indian Affairs, including Secretarial appeals and recourse to the Courts. Only recently, with the revision for effective date of August 1, 1971, in which rates were reduced, have the Indian representatives
(4) Application of log prices and logging costs

Purchasers have consistently raised the question as to use of the IFA data; (a) inclusion of the Puget Sound market, (b) exclusion of logs produced for inter-company use. Under (a) the argument arises that little if any Crane Creek and Taholah production enters the Puget Sound Market. In opposition, the BIA has contended the Grays Harbor market alone is not representative. Under (b) the purchasers argue the IFA data is overweighted to export prices and that the export market tends to handle the better quality logs with the lower grades entering inter-company use, which IFA does not report.

The logging cost guides of the U.S. Forest Service represent West Side operations of Washington and Oregon. The purchasers argue that the Quinault conditions are not well represented. Their costs claims are consistently higher and due in their opinion to the uniqueness of the Quinault forest. Beyond the basic difference, the application of the cost guides adjustment features are contended as to the factors applicable and particular costs not included in the USFS guides present special problems of application.

Reference: Stumpage revision report and consultations

(5) Congressional inquiry into Quinault sales.

The Quinault sales have been the subject of two inquiries. (a) Federal Timber Sale Policies - 1955-56, (b) Timber Sales--Quinault Indian Reservation - 1957. These inquiries discussed many aspects of the BIA timber sale policy and practice.

Reference: Federal Timber Sales Policies--Joint Hearings
References Cont'd.: Sub-Committees of the Senate Interior and Insular Affairs Committee and House Government Operations Committee - 84th Congress.

Timber Sales--Quinault Indian Reservation--Sub-Committee on Indian Affairs--Senate Interior and Insular Affairs Committee--85th Congress.

Secretary of Interior--Statement with respect to recommendations in Senate Report No. 971, 85th Congress.

(6) Purchaser appeals and influence on contracts.

The purchasers, without exception, raised objections on each and every change in stumpage rates. The first formal appeals were made in 1960, which was the fifth time the stumpage-to-log price ratios had been reviewed. Out of each review and the appeal came contract interpretations that became procedure for future administration of the contracts. The 1960 appeals were denied by the Commissioner; the decision subsequently upheld by the Secretary.

In 1966, the stumpage rates were appealed by Aloha Lumber Corporation (Taholah Unit). This was the second rate revision under the Section 11 provision of the contracts. A Secretarial decision of March 10, 1967, generally upheld the Commissioner's stumpage revision action; however, Aloha proceeded to the courts, which culminated in a more or less neutral Memorandum Order dated September 9, 1969. However, further definition of the stumpage revising process was gained. Aloha continued to appeal each successive rate revision on the basis of their court action. ITT Rayonier meanwhile continued to argue differences in the several rate revisions and eventually appealed again to the
rates to be effective July 1, 1969. This appeal was also denied.


References: 1960 Appeal ITT Rayonier
Secretarial Decision Mar. 10, 1967
Memorandum Order No. 7198, U.S. Dist. Court

(7) Consultation processes.

Both sections 10 and 11 of the timber contract provided for consultation with the purchasers regarding intent to change stumpage-to-log ratios or revision of stumpage rates. The basis for the consultations, once notice has been given, has been the BIA report on the proposal. The consultations have had varying degrees of formality. Usually the purchasers make both verbal and written presentations. Consultations with the timber owners, tribal officials and allottees, in general, are also held. The more recent trend has been for the consultations to be held jointly with all parties represented. A report of the meeting is furnished to the Commissioner citing any changes to the stumpage rates as a result of the consultations.


Attention began to be focused on the effect of logging on streams in the early 1960s. The timber contract general regulations provided for the leaving of streamside strips, but this was an aesthetic purpose and past attempts at leave strips had resulted in eventual blowdown
of the reserve timber. As a result of the new attention, meetings were held to resolve the problems of logging in relation to the fisheries aspect of the streams. While considerable material was available discussing proper stream treatment, the evolvement of this information into practices satisfactory to all the parties reviewing the stream treatment was slow. Meanwhile, the Taholah and Crane Creek purchases had proceeded with stream cleanup, as directed by the Branch of Forestry.

Particular problems associated with the streams are:

(a) The timber owner is most concerned with receiving the timber revenue and does not wish to leave several thousand dollars' worth of timber in leave strips on the allotment; and the loss to blowdown risk is high.

(b) Many fee patent lands are astride streams and outside the control of the BIA.

(c) Streams may have been in poor condition prior to the logging which exposes this condition.

(d) The fisheries benefits accrue mainly to the resident population who is generally not the land-timber owner of the timber to be logged.

Reference: File "Fish & Stream Problems, Western Wash. Agency."

(8) Aesthetic criticism.

The logged-over areas of the Crane Creek and Taholah Units present a
poor aspect to the casual observer. The stands, particularly those of cedar, are very decadent and contain high volume of dead standing and down timber. When the area is logged, the slash of the green timber is added to the debris already present although the dead material may be somewhat reduced by the taking of salvageable material.

(10) Slash and residue treatment
Decision was made early that, with very limited exception, the slash would not be disposed of by burning. Several factors were considered in this decision.

a) The residues contained large amounts of materials currently salvageable or with prospects of salvage attention.

b) Burning of the slash areas would require planting to regenerate the timber stand and the prospect of reforestation funds were not present.

c) The cost of burning, aside from a high risk of timber and property damage, and of planting were not economically sound when natural regeneration could be obtained.

d) The fire risk of the untreated slash did not appear excessive if reasonable cautions were exerted.

e) Residues left on the ground following clearcutting serve a useful purpose in controlling the movement of soil in areas of high rainfall.

f) A study of the U.S. Forest Service indicated hemlock regeneration chances are more favorable when the area is not burned.
V. Period Since October 18, 1965

The previous four sections were designed to cover in a general manner the timber cutting activity over the 50-year period. This section is intended to have considerably more detail; but as the problems and activity of the six-year period are culmination of the foregoing period, much of the material previously mentioned will have current application.

October 18, 1965, is an appropriate time to start since at that approximate time a revision of stumpage rates was being prepared and that particular revision and appeal by the purchaser would have continuing effect and attention over the entire period following to date. Also, in 1965, the concern with proper treatment of streams was being given pointed attention. These two factors, revised stumpage rates and treatment of streams, are probably the main factors of the current controversies.

Revision of stumpage rates for effective date of Jan. 1, 1966, Taholah Logging Unit.

Rates were also revised on the Crane Creek Unit; however, they were accepted by the purchaser with what had become the usual consultation contention. The Taholah rates, however, were appealed to the Secretary of the Interior and eventually to the District Courts. The appeal is extensively and intensively documented in a mountain of current files. Aloha Lumber Corporation had been newly acquired by Evans Products Company and a mixture of the old and new regimes was concerned on the purchaser's part.
The report revising stumpage rates followed the procedure established in previous actions. This action was, however, only the second since the demise of the Pacific Northwest Loggers Association (PNLA), which was the source of log prices used to review the stumpage-to-log price ratios under Section 10 of the Taholah contract. The current source of log prices was the Industrial Forestry Assn. (IFA), and the revision action under Section 11 of the Taholah contract.

Procedure had also been established to use of the USFS Region 6 logging cost guides. In examining the guides available in 1956, the BIA concluded that the Forest Service cost guides were not representative of the cost situation. As a result the previous report costs were advanced on the basis of the division of the increased value of logs by 75 percent to the stumpage owner and 25 percent to the purchaser as increased cost. This division was the same practiced in the quarterly adjustment features of other contracts let for sale of Indian timber. The BIA was of the opinion this allowance legitimately covered the cost increases. While the BIA was eventually criticized for the method used to establish costs, its judgment as to the USFS costs was substantiated in that the cost guide procedure and base was amended and changed by the USFS.


The Aloha Lumber Corp. Appeal.

The appeal is well stated in the Secretary's decision on the appeal.

It states:
"Aloha's appeal is based upon the ground that the decision of the Commissioner is contrary to the basic intent of the contract, because the Commissioner in establishing stumpage rates: (1) arbitrarily and capriciously disregarded actual costs of production existent in the industry; (2) arbitrarily and capriciously utilized a grade recovery factor which substantially overstates the actual grade of timber which can be expected to be realized in present and future operations by Aloha; and (3) selectively utilized trends of economic conditions in the West Coast logging and lumbering industry which tend to increase stumpage rates, while excluding from consideration trends which have the effect of reducing stumpage rates."

The appeal can be reduced to five separate issues:

1. Whether the stumpage adjustment procedures set forth in Section 9 of the contract are applicable;
2. Whether the Bureau's profit and risk allowance is adequate;
3. Whether the Bureau's use of a three-year average grade recovery is proper;
4. Whether the Bureau's method of computing weighted log values is proper; and
5. Whether the Bureau's failure to allow an increase in logging cost is proper.

The decision of the Secretary of the Interior on the appeal.

A hearing was held at Portland, Oregon, by Deputy Assistant Secretary Robert E. Vaughan, at which time testimony was received from representatives of Aloha, the BIA, and certain Indian timber owners. As a result of the hearing and information submitted, the Secretary decided as follows:

1. The Bureau's use of Section 11 in the January 1, 1966, adjustment and future adjustments under the contract is hereby determined to be proper.

2. The Bureau's allowance of 10.22 percent profit and risk factor is proper under the contract.

3. Aloha should pay the timber owners for the actual grade of timber recovered.

4. There is no reason to allow Aloha the increased cost of transportation to the Puget Sound Area.

5. Aloha has not been disadvantaged by the cost allowances used, consequently Aloha's appeal with respect to the Bureau's treatment of logging costs is hereby rejected.

Upon subsequent application, the decision was modified to provide that the BIA continue to pay the allottees on the basis of a single unit-wide stumpage rate for each species. This allowed the calculation of monthly stumpage rates by species instead of separate monthly rates for each allotment by species. It did not affect the prices to be paid by Aloha.

Reference: Same as previous reference.
V.

Appeal to the District Court and Appeal Settlement

The action was brought by Aloha Lumber Corporation for judicial review of the decision of the Secretary of the Interior of March 10, 1967, and sought return of monies paid under protest by Aloha. The court review produced a Memorandum Order No. 7198 which remanded the matter back to the Secretary to:

1. Obtain adequate data as to any increment in the cost factors allowed in the 1964 adjustment which were reflected in a trend of economic conditions in the West Coast logging and lumbering industry as of the 1966 adjustment; and, determine whether disallowed costs had become at that time a normal cost in the relevant industry and, if so, determine a base for such cost as of the time the challenged adjustment was made.

2. Establish a reasonable profit and risk factor in accordance with the trends in the West Coast logging and lumbering industry.

The order also suggested that the BIA consider broadening the base for measuring log values (i.e. include the Columbia River market).

As the matter was drawn out after the Court Order, the Secretary indicated he would be amenable to a settlement agreement that had favor with the Tribe and the allottees. In a series of exchanges and meetings between Aloha and Tribal and allottee representatives, an "Agreement of May 28, 1970,
was completed and received approval of the Secretary on August 7, 1970. The approval was conditioned to written endorsement of modifications to the agreement. These provided:

(a) The currently used 30-day notice prior to adjustment remained in effect. If necessary, an additional period of time will be granted in which to complete arbitration, as provided in the terms of the agreement.

(b) It shall be understood by all parties that the Secretary expects to accept the decisions rendered by the Arbitration Board pursuant to paragraph 3 of the agreement, as modified, but the Secretary shall not be bound to approve any arbitration decision which might be in conflict with the interests of the Indian or the United States.

With the completion of the agreement, the funds held in escrow were distributed as set out in the agreement.

5. Procedures arising from the appeal and decisions and the settlement.

At least as far as the Taholah contract was concerned, the revision of stumpage rates appeared to be reduced to a technical and established procedure in the arriving at log values and logging costs. The role of the "Allottee's Committee" to represent the allottees in general was given credence, and a provision for arbitration beyond the consultation stage was provided for in subsequent rate revisions.
Application to the Crane Creek Unit, while not exact, would tend to follow the same pattern with the exception of the Arbitration Board.


Stumpage rates were revised for effective dates of 1/1/68, 1/1/69, 7/1/69, and 8/1/71. Aloha appealed the first three on the basis of any increment derived from their appeal of the 1/1/66 rates. ITT Rayonier appealed the 7/1/69 revision, and upon denial of their appeal, went on record as disagreeing with the decision of the Secretary on several factors pointed out by ITT Rayonier. They urged that a joint effort to establish fair and workable procedures for future use and to pursue other areas of controversy for their reduction or elimination.

The revision for effective date of August 1, 1971, introduced new facets to the process. The consultation on the Taholah rates did not obtain the desired agreement between the purchaser and the allottee representatives and the arbitration feature of the Agreement of May 28, 1969, was invoked. This Agreement provided in paragraph 3:

It is understood of all parties that written notification will be received 60 days prior to the effective date of an adjustment. All parties will exert all effort to negotiate in good faith future stumpage adjustments prior to effective date. Should there be disagreement on specific items 40 days after start of negotiations, the specific items shall go to
binding arbitration for a period of not more than 40 days, at which time a decision shall be rendered by the Arbitration Board. The Arbitration Board shall consist of three persons, one chosen by land owners and one by Aloha. It shall be incumbent upon the two selected to choose the third arbitrator who shall act as chairman. The third shall be selected within a 2-day period. If they are unable to select a third party, two new arbitrators will be selected. In their determination the arbitrators shall be guided by the terms of the Taholah contract. Each party shall pay fees, cost, expenses, if any, of his arbitrator. The third arbitrator costs shall be shared equally by both parties.

The Agreement containing the arbitration feature was approved by Assistant Secretary Loesch on August 7, 1970, with conditions concerning the arbitration:

(a) That the currently used 30-day notice prior to adjustment of stumpage rates remain in effect. If necessary, an additional period of time will be granted in which to complete arbitration, as provided under the terms of the agreement.

(b) It shall be understood by all parties to the Agreement that the Secretary of the Interior expects to accept the decisions rendered by the Arbitration Board pursuant to paragraph 3 of the Agreement as modified by paragraph 3 of this letter, but that the Secretary shall not be bound to approve any arbitration decision which might be in conflict with the interests of the Indian or the United States.
The Arbitration Board met at Seattle, Washington, on July 21, 1971, and issued a decision under date of July 27, 1971. The Board consisted of Judge E. C. Cushing, Chairman, I. L. Trieger, Aloha, and N. D. Terry, Quinault interests. The Board reviewed the background and detail of the proposed revision of stumpage rates, and found for a trivial difference which changed logging costs 25¢ with corresponding 25¢ reduction of the rates developed by the Bureau of Indian Affairs. The substantial reduction of stumpage rates made effective August 1, 1971, derived from the prices of the log market, not from action of the Arbitration Board although the board recognized the log price effect. Upon the Board's decision, the allottee representative notified his withdrawal from the Board and that the Board's recommendations were not acceptable. The Secretary, however, accepted the Board's recommendations and made the revised rates effective as of August 1, 1971. The Crane Creek rates were also revised and the revised rates made effective August 1, 1971.

ITT Rayonier had objected vigorously to the revised rates, which were a reduction of rates, differing with the BIA report approximately $4 per thousand board feet. The Aloha differences with the BIA report that ended up with the Arbitration Board were $.64 per MBF.

The Quinault Tribe and allottee representatives refused to accept the revised stumpage rates but did not formalize an appeal. Instead,
they reported to blockage of the access to the logging units. Aloha Lumber Corporation proceeded to the U.S. District Court for relief against the blockage and were successful in obtaining a preliminary injunction against the Tribe, the Committees, and named individuals—date of September 30, 1971.

ITT Rayonier chose to meet with tribal representatives and accordingly committed themselves to pay the stumpage rates in effect previous to the revision. Upon petition to the Secretary by both parties, the previous rates were restored for Crane Creek stumpage.

Reference Material:

Arbitrator's Decision
Portland Area Office reports to Commissioner:
  Trend of Economic Conditions Report
  Report on Arbitration Board Decision
Agreement of May 28, 1970
Assistant Secretary's approval of Agreement
Resume of Consultation Meeting
V.

7. Quinault representatives criticism of forest management.

The District Court Injunction statement mentioned that the BIA representatives had the power to close the purchaser's operations for cause under the timber contract. Subsequently, the Quinault representatives requested the BIA to close the operations and cited a long list of alleged contract violations. As a result of these allegations, the Area Director, Portland, advanced to the Commissioner the need for an unbiased review of the timber sale administration activity at the Quinault Reservation and other reservations also. A committee for such a review was formed but due to dissention did not become operative. A review completed January 24, 1972, by a study group organized by tribal request to the Environmental Protection Agency entitled, "Report on Forestry and Related Resources Management" is now under study by the Commissioner's Office.

The management criticism can be described by the four actions filed in the U.S. Court of Claims, or by items as follows:

1. Regeneration of lands cut over.

The practices of management concerning regeneration are covered in Section III 7. The current measure of this has led to contention as to what constitutes adequate regeneration. The BIA measure of the Taholah Unit now being reviewed at the Area Office indicates regeneration is occurring as planned in the cutting method.
Backlogs in old cutover areas have been reduced and can be liquidated in the short term. Advice hired by the Quinault representatives state regeneration is generally deficient.

(2) Stream Treatment.

Attention to streams has been emphasized on an increasing extent since the problem received wide recognition starting in approximately 1960. Differences as to what would constitute proper treatment has been a problem which has been reduced materially with the development of 1972 Crane Creek and Taholah and subsequent Logging Plans.

(3) Residues present after logging.

The cedar stands are characterized by high residue volume, the result of dead trees and deadfall naturally present and the effect, and slash from logging. Since cedar is more predominate on the Taholah Unit, this is a more extensive problem there. The residue is said to (1) block regeneration, (2) be a fire hazard, and (3) be unpleasing in appearance. However, until the economic solution of removal of the residues arrives, these drawbacks must be borne if the stands are to be logged, nor are they unbearable if the natural processes are allowed to occur and maximum utilization available to the times is exercised. The usual alternative advanced is to burn the residue. Such action
requires that provisions for planting the area be available. Usually ignored in the burning alternative is a determination of the damage risk present.

(4) Logging practices and timber required to be cut.

The logging practices are concerned with their effect on (2), (3), and (4) above, and the associated road construction. Road construction is recognized as the major source of surface soil movement in logging operations and the Quinault activities are no exception. The road systems required are both extensive and expensive, generally requiring substantial rock fill.
Clearcutting has been the general practice in old growth West Side (West Side Cascade Mtns.) forests and all material delineated by the contract terms is required to be paid for whether removed or not. Where selective logging by individual tree is practiced, it is a foregone conclusion, in old-growth stands, that the trees capable of being reduced to the highest quality material will generally be taken to a high degree; however, this quality is not the basis of selection for removal.

The timber contract states the standards regarding trees to be taken, their utilization, and recognizes timber areas that are submarginal due to these standards and the cost of production. Quality of the log produced within the standards is not a consideration in taking the log; however, the stumpage rate should reflect the quality expected. Even if rates are established by log grade, there is no effect on the material required to be paid for under the contract. In a long-term contract, the changes occurring in market demand and efficiency of logging practices have usually reduced the areas considered submarginal with corresponding increase in the volume of the logging unit. The situation existing at the end of the contract would be the product of the above.

fee reasonable to the work involved in the sale of timber is taken from the proceeds of the sale of timber.

Cumulative records have been maintained since F. Y. 1949 on the Western Washington Agency showing expenditures at the Agency level from funds appropriated for forest management activities, except funds appropriated specifically for fire suppression or pest control and the record also lists the amounts withheld as an administrative fee. The record serves as a continuing review and a basis to determine whether or not the percentage deducted from the gross proceeds of Indian timber sold should be changed. No attempt has been made to obtain a balance between expenditures and deductions in any one year nor is an exact balance expected over more extensive periods of time. An approximate and reasonable balance is all that can be anticipated. The percentage applied to Quinault timber sales has varied. Currently, it is eight percent and was set at this level April 1, 1970, being reduced from 10 percent. Current rate is six percent, made effective 4-1-70.

As of June 30, 1971, the expenditure, starting F. Y. 1949, at the agency appropriated level for/funds expended or obligated for forest management total $3,486,306. For this same period, the amount withheld from Indian timber sales for administrative purposes totals $4,002,115.
(6) Crane Creek and Taholah stumpage rates.

The procedure of revising stumpage rates includes a consultation with the purchaser, tribal representatives, and allottees in general, prior to submission of rate recommendations to the Commissioner. Until the rate revision for effective date of August 1, 1971, the tribal and allottee role was relatively passive but also opposed to the contentions of the purchasers. Thus, the contention was mainly between the BIA and the purchasers, based on the indicated rates set out in the BIA stumpage revision report.

Traditionally, the rates had been compared with the U.S. Forest Service rates but with the export restrictions on Forest Service timber and the log price effect of the export market, this comparison has deferred to comparison with State of Washington sales which are not subject to export and largely go to the export market.

The log values used in BIA revision are based on the combination of domestic and export markets and the rules of this are well established by purchaser contention, appeals, and actions in the Courts. Other differences principally quality of material logged make true comparison an intensive exercise.

In the consultations and the Arbitration Board review of the August 1, 1971, revised rates, the Quinault representatives advanced the concept of comparative stumpage rates, presenting
evidence of State of Washington sales comparisons. Among other
deficiencies their comparisons did not take account of material
quality differences. Critical to the contentions on the revised
rates is the fact they were a decrease from those previously in
effect.

References: Transcript of Proceedings, Aloha Lumber Corp.
vs. Quinault Tribal Council, et al.
Report on Forestry and Related Resources
Reproduction Survey Report, Taholah Unit, Feb. 28,
1972.
Stream Treatment File, Collection, Portland Area
Office File.
Administrative Deduction Record, Portland Area
Office File.
Revision of Stumpage Rates Report for rates
Report of Arbitration Board on Taholah Rates
for effective date Aug. 1, 1971.

Quinault Allottee Committee.
The Quinault Allottee Committee, in its present form, was activated
in mid-1968 as a means of allottee input into the Western Washington
Agency management activity. The Superintendent fixed a policy
that actions concerning Quinault land and timber be reviewed by the
Committee for their concurrence, and until such concurrence was
available the actions would not proceed further.

The Committee was recognized by the Assistant Secretary of the
Interior in the negotiation with Aloha Lumber Corporation as to
settlement of Aloha's appeals initiated with the January 1, 1966,
rate revision. Since the settlement in mid-1970, the Committee
has continued to be a voice of tribal and allottee review and
criticism of the Forestry program. The Committee is currently
active in the development and review of the annual logging plans
for the Crane Creek and Taholah Unita.

The actions filed in the U. S. Court of Claims 772, 773, 774,
775-71 lists the Committee as a plaintiff. The Committee repre­
sentation in these matters was joined early to the effort of
developing the attorney contract.
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Prepared in relation to Para. 3 -- Plaintiff More Definite Statement Filed 12/30/71

Re: Mitchell et al. v. United States

Organized July-August 1973 -- VKM & CRN
Helen Mitchell, et al. v. United States Case

STATEMENT OF CASE

The action by the Quinault Allottees against the United States for failure to prudently manage their allotments is an unique effort to apply the principles of sound silviculture management for a single large forest of 170,000 acres to a collection of 2,340 separate forests of 80 acres each. It is apparent that there are no applicable standards to measure the care or lack of care by the United States in the management of the plaintiffs' land. Private industry does not manage its timber in 80-acre tracts. Nor does the Forest Service manage the public timber in such a manner. The standard of care rendered by the United States in the management of the plaintiffs' lands must be viewed as a changing standard which takes into consideration the balancing of many interests which is readily apparent as one views the history of the Quinault Indian Reservation and its timber resources.

The Quinault Reservation contained approximately 190,000 acres of which 175,000 acres were heavily timbered. The reservation has been completely allotted to provide permanent homes for the Indians of the reservation. It was the purpose of the treaty and the Allotment Acts that the allotments would not only provide permanent homes but sufficient land for the support of the Indian family through agricultural development. The Allotment Act does not contemplate that the allotted tract will be managed for its timber but that such tract will be
cleared and farmed by the Indian family for their support. It was apparent in the early history of the reservation that the land was more suitable for timber production than crops. As a result, the Commissioner of Indian Affairs ordered all allotting stopped in 1915 so that the reservation could be managed as a forest. The Commissioner's policy was short lived for, in 1924, the United States Supreme Court ordered the Secretary of the Interior to continue the allotting of the reservation. (United States v. Payne, 264 U.S. 446 (1924)) By the Payne decision, the Supreme Court, rather than the Secretary of the Interior, determined the silvicultural management program for the Quinault Reservation. From that time to the present, there has been a never-ending conflict between efforts by the professional foresters for the Bureau of Indian Affairs to manage the Quinault Reservation upon sound silvicultural principles and the efforts of the allotment owners to realize in their lifetime income from the timber growing upon their respective allotments. The history of timber management on the Quinault Reservation has been one of compromise and adjustment which has satisfied neither the desires of the Bureau's professional foresters nor the allotment owners.

The plaintiffs' complaint attempts to set forth a wide range of alleged nonfeasance and negligent acts by the United States in
connection with the plaintiffs' allotments. It appears that they may be summarized in four general categories as follows:

1. Failure by the United States to provide adequate conditions in the logging of the allotted lands to protect the plaintiffs' interests.

2. That representatives of the United States by misrepresentation, undue influence, and coercion obtained powers of attorney from the plaintiffs to enter into contracts for sales of timber and failed to provide the allottees with a full and complete disclosure of information before obtaining the allottees' consent to enter into large-size, long-term contracts.

3. That the United States failed to rehabilitate and provide for regeneration of the timber after it had been cut from the plaintiffs' allotments.

4. That the United States failed to provide for prudent management of an area within the Quinault Reservation known as the Queets Unit in that representatives of the United States encouraged the selling of trust lands and failed to provide a management program for planned harvesting of the Unit.
The plaintiff's complaint makes general allegations of negligent conduct by the United States in early contracts on the reservation beginning in 1920, however, in subsequent pleadings, it appears that plaintiffs will concentrate on alleged negligent conduct arising out of the contracts connected with the Taholah and Crane Creek Units. The Taholah Unit was contracted to the Aloha Lumber Corporation in 1950, and the Crane Creek Unit was contracted with Rayonier Incorporated in 1952. Consequently, this report will concentrate on the activities of the Bureau of Indian Affairs in the management of the Taholah and Crane Creek Units. The volume of material which has been reviewed in the preparation of this report is immense, and this report is only a summary. It also must be remembered that, with changing administrations and personnel, there have been many changes in policies, some of which are conflicting, which have been caused by the many conflicting interests involved in the management of the Quinault lands. It is apparent from all of the information available that the Bureau of Indian Affairs has attempted to manage the lands upon a basis of obtaining maximum income for the allotment owners and, at the same time, to fulfill in some form the direction of Congress to manage Indian forests upon the basis of a sustained yield of management. It is also apparent that the two principles are incompatible.
HISTORICAL BACKGROUND

of

QUINAULT INDIAN RESERVATION AND ITS RELATIONSHIP TO TIMBER RESOURCE MANAGEMENT

A treaty was negotiated by Governor Stevens between the United States and the Quinault (Quinaietl) and the Quileute (Quillehute) Indians whereby the Tribes ceded to the United States a large tract of land on the Pacific Coast of Washington. The Treaty was concluded on July 1, 1855, ratified by the Senate March 8, 1859, and proclaimed by the President on April 11, 1859 (12 Stat. 971). There was reserved for the Tribes a tract of land sufficient for their wants within the Territory of Washington to be selected by the President of the United States and set apart for their exclusive use. Article VI of the Treaty provided that the President may allot the reservation to individuals of the Tribe or families on the same terms and subject to the same regulations as provided in the sixth article of the Treaty with the Omahas. A small reservation of approximately 10,000 acres was set aside for the Quinaulms and later enlarged to approximately 200,000 acres by Executive Order of November 4, 1873. The Indian Bureau commenced the allotting of the reservation in 1905 under the Treaty of 1855 and the General Allotment Act of 1887. (24 Stat. 388) By 1911, approximately 750 allotments had been completed.

By the Act of March 4, 1911 (36 Stat. 1345), Congress specifically directed the Secretary of the Interior to make allotments on the Quinault Indian Reservation under the provisions of the Allotment Laws of the United States.

"... to all members of the Hoh, Quileute, Ozette..."
or other tribes of Indians in Washington who are affiliated with the Quinault and Quileute Tribes in the Treaty of July 1, 1855, and January 23, 1856.

..."

In 1914 the Commissioner of Indian Affairs stopped the allotting of heavily forested lands within the Quinault Reservation and directed a cruise of the timber for the purpose of preparing a plan to manage the reservation timber as an integral forest unit. From 1915 to 1917 the Indian Bureau was engaged in the preparation of such a cruise for the management of the reservation timber.

In 1911 Tommy Payne, an Indian of the Quileute Tribe, had selected an allotment of 80 acres which contained 40 to 50 acres of timber land and the remainder being bottom land lying along the Raft River. The Indian Bureau refused to confirm the allotment because of its policy, established in 1914, to withhold from allotment the timbered lands of the reservation for management as a unit. Numerous other Indians had applied for allotments of the timbered land which had been refused, and Payne brought suit in the Federal District Court to compel the Secretary to issue a trust patent. The question presented to the court was whether the land, being timbered, was to be excluded from the operation of the Allotment Act which referred only to the allotting of agricultural and grazing lands.

The Federal District Court, as well as the Court of Appeals, held that Payne was entitled to an allotment and the matter was appealed to
the Supreme Court of the United States, which affirmed the lower courts.

The Supreme Court reasoned that the Allotment Act must harmonize with Article VI of the Quinault Treaty, which made no restriction in respect to the character of the land to be assigned or allotted. The Court stated that the Treaty must be construed liberally in favor of the rights claimed under it, and it concluded that the character of the lands to be set apart for the Indians severally was not restricted. The Court felt that there was no intention to exclude timber lands, and the Allotment Act could not be construed to exclude such lands from allotment without bringing about a materially restrictive change in the terms of the Treaty. The Court concluded:

"... It is not an unreasonable view of the requirement that allotment shall not exceed 80 acres of agricultural or 100 acres of grazing land to say that it was meant not to preclude an allotment of timbered lands, capable of being cleared and cultivated, but simply to differentiate, in the manner of area, between lands which may be adapted to agricultural uses and lands valuable for grazing purposes." United States v. Payne, 264 U.S. 446/(1924)
With the Payne decision, the plans for the management of the forests on the Quinault Reservation as a unit were abandoned. By 1934 all of the forest land within the reservation had been allotted.
III. Issues Raised by Quinault Allottees

A. Lack of Prudent Management by the Government.

1. Inadequate Formula or Means for Determining Fair Stumpage Prices and Use of Inadequate and Erroneous Data in the Formula.

a. Stumpage Determination Formulas

There are several formulas that have had use in appraisal of timber stumpage. The formulas are similar in the basic factors and vary in the method of determining the profit margin. Thus:

Stumpage = Selling Value - Costs - Profit Margin

1) Valuation Factor - profit margin is calculated by taking a part of the conversion return.

2) Overturn Method - profit margin is calculated on a percent of estimated cost.

3) Profit Ratio Method - profit margin is calculated on a percent of estimated cost and stumpage (stumpage is considered a cost).

4) Selling Price Ratio - profit margin is expressed as a percentage of return on sales and converted to a profit ratio.

5) Investment Approach - profit margin established on the basis of capital engaged.

All these methods have been used by public agencies to arrive at stumpage appraisal although the valuation factor
appears to have been used only by the Bureau of Land Management. The Bureau of Indian Affairs use has followed the U.S. Forest Service practices—from use of the investment approach in the 1920s to use of overturn to present use of the profit ratio. The BLM and USFS currently indicate they use the selling price ratio concept to arrive at the profit ratio.

b. Selling Value

Quinault appraisals since inception of timber sales have used log selling prices to calculate stumpage prices. The coastal marketing area of which Quinault is a part has historically dealt in log values and log markets. Collection of such data by Foresters was an integral part of the appraisal of stumpage. Early sales appraisal relied on the log market data gathered from their own inquiry and compiled. Although the Pacific Northwest Loggers Association (PNLA) eventually became a published source of log market data that was used to appraise stumpage, it did not exist in the Grays Harbor area in the 1920s. When the PNLA ceased operation, the Industrial Forestry Association (IFA) began collecting and publishing similar log market transaction information.

The USFS also used log market prices in their appraisals until approximately 1960 when they changed to end-product
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[184x704]appraisal. The BLM has traditionally used log delivered to mill pond values. The BIA continues to use log market value for Quinault sales. This is advantageous to the allotted owners since the market reflects the export prices and these have been a dominant factor in the rise in appraised stumpage values. The USFS and BLM timber sales are restricted as to export and thus tend to reflect a domestic price. In comparison State of Washington sales are not export restricted but by law have the impractical requirement of use of domestic log prices in appraisal. Log prices are quoted by grade and the quality of a given timber sale is directly reflected in such application to the appraisal.

c. Logging Costs
Collection of costs applicable to timber being appraised was a responsibility of the local appraising organization. Over time the collection has developed from individual efforts to a system utilizing specialists. Collection by BIA personnel appraising timber has been from purchasers of Indian timber, pursuant to a contract clause, and contact and inquiry to logging businesses in the reservation vicinity. Since appraisal was to log prices only logging costs were applicable or needed. Such collections followed the practices of the times and the recognized
accumulation procedures. USFS cost collections were viewed as a reference and comparison facility and became a source of specific costs as their information became a formal regional publication. With the revision of the Crane Creek and Taholah stumpage rates in 1960, the USFS cost guides were adopted for standard use. Specific cost items not in their cost guide have been developed by the BIA or obtained from other recognized cost sources. Use of this method has been reinforced as a result of purchaser appeals, Congressional inquiry, Secretarial decisions, and purchaser resort to the Courts to contest rate revisions. Most recently, an Arbitration Board established by Quinault officials and Aloha Lumber Corporation, reviewed the cost allowances.

The USFS cost guides derive from their program of cost collection from a sample of their purchasers and is revised on an approximate six-month's interval to reflect current cost collections from purchaser closing fiscal year records. The BLM uses costs derived from their direct time studies, and a variety of sources such as: the USFS, BIA, Pacific NW Experiment Station, Labor Union basic wage rates, manufacturer purchase prices and operating expenses, etc. The State of Washington gathers local purchaser cost data and uses it with cost adjust-
ment tables of the USFS generally. Certain cost allowances are empirically developed or have a standard formulation.

d. Profit Margin

As previously discussed, the manner of obtaining the profit margin is the difference between appraisal formulas. There are various means of determining the factor as related to any formula. Among them are (1) published findings of the Federal Trade Commission and Securities and Exchange Commission, (2) examination of purchaser financial statements (3) special industry studies, (4) timber sale bidding experience. Appraisers may use one or all in arriving at a factor, and usually do, although one may be the rule and the others used to compare and substantiate. The profit margin is composed of several allowances with profit the major one. Others are risk, income taxes, interest on borrowed capital.

e. Contract Administration Procedures

1) Quarterly adjustment of stumpage rates

Procedure is stated in Sections 7, 8, and 9 of the contracts and provides for quarterly adjustment of stumpage rates by application of the listed ratios to the price of logs as published by the Pacific Northwest Loggers Association (PNLA). This quarterly adjustment
feature of each contract was lost when the PNLA ceased to publish log prices.

2) **Adjustment of stumpage ratios**

   Procedure is stated in Section 10 of the contracts and provides for the Approving Officer to establish new ratios when the altered situation warrants. The new ratios are then applied as in Section 7 to establish the quarterly stumpage rates. This feature was also lost when the PNLA ceased to publish log prices.

   Reference: Taholah and Crane Creek Timber Contracts

3) **Use of Grade Information**

   Original grade estimates were set out in the Forest Officer's Report proposing the Taholah-Queets-Crane Creek Logging Units. By 1957, sufficient data on grade recovery had been accumulated to adjust the original estimates. The grade data had been expanded from each succeeding year of logging and is recorded for each year and accumulative for all years to date. The grade information was applied to log prices using the latest 3-year combined data. With the Secretary's decision of the 1966 Taholah appeal, the Taholah established grade prices are applied on a monthly basis to the log production to arrive at the monthly stumpage rate.

   References: Crane Creek and Taholah Grade Recovery and Record PNLA Publications
4) **Logging Cost Information**

The original appraisal and subsequent rate revising actions used cost information the result of study of purchaser cost records and experience in the economic area. The collection of this information became more formalized and specialized to what is essentially present-day methods. In the 1960 rate revision, the BIA adopted the USFS Region 6 cost guides (West Side). In prior revisions they had been used for comparison purposes and for certain specific items of cost. Transportation costs were also standardized in the 1960 revision to use of the State of Washington tariff tables. Items of cost not available otherwise are determined by separate cost determination of the BIA.

**f. Contract Administration Problems and Controversy**

1) **Determination of change regarding ratios**

The Crane Creek and Taholah timber contracts provided initial rates (Section 6) and that these rates would be adjusted quarterly (Sections 7, 8, & 9) by application of the listed ratios to the log prices as published by the Pacific Northwest Logger's Association (PNLA). This quarterly adjustment feature was lost when the PNLA ceased to publish log prices in November 1962.
In addition to the quarterly adjustments provision made for adjustment of the ratios (Section 10) by the Approving Officer when an altered situation warranted. This section language received varied interpretation. The purchasers held that only major changes in economics should be considered; however, the view of the BIA that changes such as costs, log prices, in addition to other changes are the proper considerations and this view prevailed and was presumably accepted. The purchasers, however, retained opinion on various aspects of the ratio changes while accepting them.

2) Change in log market information source - Revision of Stumpage Rates

With the dissolution of the PNLA November 13, 1962, a new source of log price information was required and the decision of the Industrial Forestry Association (IFA) to publish log prices was welcomed. The stumpage rate change procedure moved to Section 11 of the contracts, which stated rates would be revised "in accordance with the trend of economic conditions in the West Coast logging and lumbering industry (Taholah) and West Coast forest products industries (Crane Creek). These controversies subsequently developed."
a) Purchasers maintained that the IFA was essentially the same as the PNLA so that stumpage rate changes should continue to be made under Section 10.

b) The difference in wording "logging and lumbering" versus "forest products industries" was noted by the purchasers and in their interpretation required measure by different means.

c) The same question of the application to major changes only, was presented by the purchasers.

All of these differed from the BIA view which was sustained in the subsequent revision actions and the BIA view has now become accepted without the recurring controversy, although the purchasers remain as holding their own opinion.

Upon tentative decision based on examination of indicators that economic conditions have changed to an extent to warrant revision of stumpage rates, a report is prepared entitled "Trend of Economic Conditions Relative to Revision of Stumpage Rates." This report is presented to the Approving Officer with recommendations as to proceeding under Section 11 of the timber contract. The purchaser and Indian representatives are advised and a period of consultation is established.
The report and other information is supplied the parties. Upon conclusion of the consultations required in the revision process, recommended stumpage rates are presented to the Approving Officer which become effective upon his notice to the purchaser and the Indian representatives.

The report prepared is designed first to examine information reflecting the economic trend and, second, to calculate indicated revised stumpage rates.

The processes, ratio changes using PNLA log prices, and revised stumpage rates using IFA log prices have been characterized by intensive and continuing contention between the purchasers and the Bureau of Indian Affairs, including Secretarial appeals and recourse to the Courts. Only recently, with the revision for effective date of August 1, 1971, in which rates were reduced, have the Indian representatives become active contenders against both the purchaser's contentions and the revision process practiced by the Bureau of Indian Affairs.

Aside from the quarterly adjustments, the ratios and stumpage rates have been reviewed thirteen times over the period of the contracts, the last nine being revisions under Section 11.
3) **Comparison with other stumpage sales**

Almost since inception Crane Creek and Taholah rates have received comparison with other timber sales in the area. Generally, this was comparison with USFS sales. Since the export market became a major factor in log prices, the comparison has shifted to small private and State of Washington sales, and more so as USFS has become subject to export restrictions. A list and chart of the USFS comparison is available.

4) **Application of log prices and logging costs**

Purchasers have consistently raised the question as to use of the IFA data: (a) inclusion of the Puget Sound market, (b) exclusion of logs produced for intercompany use. Under (a) the argument arises that little if any Crane Creek and Taholah production enters the Puget Sound Market. In opposition, the BIA has contended the Grays Harbor market alone is not representative. Under (b) the purchasers argue the IFA data is overweighted to export prices and that the export market tends to handle the better quality logs with the lower grades entering intercompany use, which IFA does not report.

The logging cost guides of the U.S. Forest Service represent West Side operations of Washington and Oregon.
The purchasers argue that the Quinault conditions are not well represented. Their costs claims are consistently higher and due, in their opinion, to the uniqueness of the Quinault forest. Beyond the basic difference, the application of the cost guides adjustment features are contended as to the factors applicable and particular costs not included in the USFS guides present special problems of application.

5) Congressional inquiry into Quinault Sales

The Quinault sales have been the subject of two inquiries. (a) Federal Timber Sale Policies - 1955-56, (b) Timber Sales--Quinault Indian Reservation - 1957. These inquiries discussed many aspects of the BIA timber sale policy and practice.

6) Purchaser appeals and influence on contracts

The purchasers, without exception, raised objections on each and every change in stumpage rates. The first formal appeals were made in 1960, which was the fifth time the stumpage-to-log price ratios had been reviewed. Out of each review and the appeal came contract interpretations that became procedure for future administration of the contracts. The 1960 appeals were denied by the Commissioner. In 1966,
the stumpage rates were appealed by Aloha Lumber Corporation (Taholah Unit). This was the second rate revision under the Section 11 provision of the contracts. A Secretarial decision of March 10, 1967, generally upheld the Commissioner's stumpage revision action; however, Aloha proceeded to the courts, which culminated in a more or less neutral Memorandum Order dated September 9, 1969. However, further definition of the stumpage revising process resulted. Aloha continued to appeal each successive rate revision on the basis of their court action. ITT Rayonier meanwhile continued to argue differences in the several rate revisions and eventually appealed again to the rates to be effective July 1, 1969. This appeal was also denied. Aloha finally settled their appeals in 1969 in an Agreement dated May 28, 1970, negotiated directly with Quinault representatives.

7) Consultation Processes

Both Sections 10 and 11 of the timber contract provided for consultation with the purchasers regarding intent to change stumpage-to-log ratios or revision of stumpage rates. The basis for the consultations, once notice has been given, has been the BIA report on the proposal. The consultations have had varying degrees of formality. Usually the purchasers make both verbal and written presentations. Consultations
with the timber owners, tribal officials and allottees, in general, are also held. The more recent trend has been for the consultations to be held jointly with all parties represented. A report of the meeting is furnished to the Commissioner citing any recommended changes to the stumpage rates as a result of the consultations.

g. Period since October 18, 1965

The previous four sections were designed to cover in a general manner the timber-cutting activity over the 50-year period. This section is intended to have considerably more detail; but as the problems and activity of the six-year period are culmination of the foregoing period, much of the material previously mentioned will have current application.

October 18, 1965, is an appropriate time to start since at that approximate time a revision of stumpage rates was being prepared and that particular revision and appeal by the purchaser would have continuing effect and attention over the entire period following to date. Also, in 1965, the concern with proper treatment of streams was being given pointed attention. These two factors, revised stumpage rates and treatment
of streams, are probably the main factors of the current controversies.

1) **Revision of stumpage rates** for effective date of Jan. 1, 1966, Taholah Logging Unit

Rates were also revised on the Crane Creek Unit; however, they were accepted by the purchaser with what had become a pattern of consultation contention. The Taholah rates, however, were appealed to the Secretary of the Interior and, eventually, to the District Courts. The appeal is extensively and intensively documented in a mountain of current files. Aloha Lumber Corporation had been newly acquired by Evans Products Company and a mixture of the old and new regimes was concerned on the purchaser's part.

The report revising stumpage rates followed the procedure established in previous actions. This action was, however, only the second since the demise of the Pacific Northwest Loggers Association (PNLA), which was the source of log prices used to review the stumpage-to-log price ratios under Section 10 of the Taholah contract. The current source of log prices was the Industrial Forestry Association (IFA), and the revision action under Section 11 of the Taholah contract.
Procedure had also been established to use of the USFS Region 6 logging cost guides. In examining the guides available in 1966, the BIA concluded that the Forest Service cost guides were not representative of the cost situation. As a result the previous report costs were advanced on the basis of the division of the increased value of logs by 75 percent to the stumpage owner and 25 percent to the purchaser as increased cost. This division was the same practiced in the quarterly adjustment features of other contracts let for sale of Indian timber. The BIA was of the opinion this allowance legitimately covered the cost increases. While the BIA was eventually criticized for the method used to establish costs, its judgment as to the USFS costs was substantiated in that the cost guide procedure and base was amended and changed by the USFS.

2) The Aloha Lumber Corp. Appeal

The appeal is well stated in the Secretary’s decision on the appeal. It states:

"Aloha's appeal is based upon the ground that the decision of the Commissioner is contrary to the basic intent of the contract, because the Commissioner in
establishing stumpage rates: (1) arbitrarily and capriciously disregarded actual costs of production existent in the industry; (2) arbitrarily and capriciously utilized a grade recovery factor which substantially overstates the actual grade of timber which can be expected to be realized in present and future operations by Aloha; and (3) selectively utilized trends of economic conditions in the West Coast logging and lumbering industry which tend to increase stumpage rates, while excluding from consideration trends which have the effect of reducing stumpage rates."

The appeal can be reduced to five separate issues:

a) Whether the stumpage adjustment procedures set forth in Section 9 of the contract are applicable;

b) Whether the Bureau's profit and risk allowance is adequate;

c) Whether the Bureau's use of a three-year average grade recovery is proper;

d) Whether the Bureau's method of computing weighted log values is proper; and

e) Whether the Bureau's failure to allow an increase in logging cost is proper.
3) The decision of the Secretary of the Interior on the appeal.

A hearing was held at Portland, Oregon, by Deputy Assistant Secretary Robert E. Vaughan, at which time testimony was received from representatives of Aloha, the BIA, and certain Indian timber owners. As a result of the hearing and information submitted, the Secretary decided as follows:

a) The Bureau's use of Section 11 in the January 1, 1966, adjustment and future adjustments under the contract is hereby determined to be proper.

b) The Bureau's allowance of 10.22 percent profit and risk factor is proper under the contract.

c) Aloha should pay the timber owners for the actual grade of timber recovered.

d) There is no reason to allow Aloha the increased cost of transportation to the Puget Sound Area.

e) Aloha has not been disadvantaged by the cost allowances used; consequently, Aloha's appeal with respect to the Bureau's treatment of logging costs is hereby rejected.

Upon subsequent application, the decision was modified to provide that the BIA continue to pay the allottees on the basis of a single unit-wide stumpage rate for
each species. This allowed the calculation of monthly stumpage rates by species instead of separate monthly rates for each allotment by species. It did not affect the prices to be paid by Aloha.

4) Appeal to the District Court and Appeal Settlement

The action was brought by Aloha Lumber Corporation for judicial review of the decision of the Secretary of the Interior of March 10, 1967, and sought return of monies paid under protest by Aloha. The court review produced a Memorandum Order No. 7198 which remanded the matter back to the Secretary to:

a) Obtain adequate data as to any increment in the cost factors allowed in the 1964 adjustment which were reflected in a trend of economic conditions in the West Coast logging and lumbering industry as of the 1966 adjustment; and, determine whether disallowed costs had become at that time a normal cost in the relevant industry and, if so, determine a base for such cost as of the time the challenged adjustment was made.

b) Establish a reasonable profit and risk factor in accordance with the trends in the West Coast logging and lumbering industry.

The order also suggested that the BIA consider broadening the base for measuring log values (i.e., include the Columbia River market).
As the matter was drawn out after the Court Order, the Secretary indicated he would be amenable to a settlement agreement that had favor with the tribe and the allottees. In a series of exchanges and meetings between Aloha and tribal and allottee representatives, an "Agreement of May 28, 1970, was completed and received approval of the Secretary on August 7, 1970. The approval was conditioned to written endorsement of modifications to the agreement. These provided:

a) The currently used 30-day notice prior to adjustment remained in effect. If necessary, an additional period of time will be granted in which to complete arbitration, as provided in the terms of the agreement.

b) It shall be understood by all parties that the Secretary expects to accept the decisions rendered by the Arbitration Board pursuant to paragraph 3 of the agreement, as modified, but the Secretary shall not be bound to approve any arbitration decision which might be in conflict with the interests of the Indian or the United States.

With the completion of the agreement, the funds held in escrow were distributed as set out in the agreement.
5) **Procedures arising from the appeal and decisions and the settlement.**

At least as far as the Taholah contract was concerned, the revision of stumpage rates appeared to be reduced to a technical and established procedure in the arriving at log values and logging costs. The role of the "Allottee's Committee" to represent the allottees in general was given credence, and a provision for arbitration beyond the consultation stage was provided for in subsequent rate revisions.

Application to the Crane Creek Unit, while not exact, would tend to follow the same pattern with the exception of the Arbitration Board.

6) **Subsequent series of revisions of stumpage rates**

Stumpage rates were revised for effective dates of 1/1/68, 1/1/69, 7/1/69, and 8/1/71. Aloha appealed the first three on the basis of any increment derived from their appeal of the 1/1/66 rates. ITT Rayonier appealed the 7/1/69 revision, and upon denial of their appeal, went on record as disagreeing with the decision of the Secretary on several factors pointed out by ITT Rayonier. They urged that a joint effort to establish fair and workable procedures for future use and to pursue other areas of controversy for their reduction or elimination.
The revision for effective date of August 1, 1971, introduced new facets to the process. The consultation on the Taholah rates did not obtain the desired agreement between the purchaser and the allottee representatives and the arbitration feature of the Agreement of May 28, 1969, was invoked. This Agreement provided in paragraph 3:

It is understood of all parties that written notification will be received 60 days prior to the effective date of an adjustment. All parties will exert all effort to negotiate in good faith future stumpage adjustments prior to effective date. Should there be disagreement on specific items 40 days after start of negotiations, the specific items shall go to binding arbitration for a period of not more than 40 days, at which time a decision shall be rendered by the Arbitration Board. The Arbitration Board shall consist of three persons, one chosen by land owners and one by Aloha. It shall be incumbent upon the two selected to choose the third arbitrator who shall act as chairman. The third shall be selected within a 2-day period. If they are
unable to select a third party, two new arbitrators will be selected. In their determination the arbitrators shall be guided by the terms of the Taholah contract. Each party shall pay fees, cost, expenses, if any, of his arbitrator. The third arbitrator costs shall be shared equally by both parties.

The Agreement containing the arbitration feature was approved by Assistant Secretary Loesch on August 7, 1970, with conditions concerning the arbitration:

a) That the currently used 30-day notice prior to adjustment of stumpage rates remain in effect. If necessary, an additional period of time will be granted in which to complete arbitration, as provided under the terms of the agreement.

b) It shall be understood by all parties to the agreement that the Secretary of the Interior expects to accept the decisions rendered by the Arbitration Board pursuant to paragraph 3 of the agreement as modified by paragraph 3 of this letter, but that the Secretary shall not be bound to approve any arbitration decision which might be in conflict with the interests of the Indians or the United States.
The Arbitration Board met at Seattle, Washington, on July 21, 1971, and issued a decision under date of July 27, 1971. The Board consisted of Judge E. C. Cushing, Chairman, I. L. Trieger, Aloha, and N. D. Terry, Quinault interests. The Board reviewed the background and detail of the proposed revision of stumpage rates, and found for a trivial difference which changed logging costs 25¢ with corresponding 25¢ reduction of the rates developed by the Bureau of Indian Affairs. The substantial reduction of stumpage rates made effective August 1, 1971, derived from the prices of the log market, not from action of the Arbitration Board although the board recognized the log price effect. Upon the Board's decision, the allottee representative notified his withdrawal from the Board and that the Board's recommendations were not acceptable. The Secretary, however, accepted the Board's recommendations and made the revised rates effective as of August 1, 1971. The Crane Creek rates were also revised and the revised rates made effective August 1, 1971.

ITT Rayonier had objected vigorously to the revised rates, which were a reduction of rates, differing with the BIA report approximately $4 per thousand
board feet. The Aloha differences with the BIA report that ended up with the Arbitration Board were $.64 per MBF.

The Quinault Tribe and allottee representatives refused to accept the revised stumpage rates but did not formalize an appeal. Instead, they resorted to blockage of the access to the logging unit. Aloha Lumber Corporation proceeded to the U.S. District Court for relief against the blockage and were successful in obtaining a preliminary injunction against the tribe, the committees, and named individuals--date of September 30, 1971.

ITT Rayonier chose to meet with tribal representatives and, accordingly, committed themselves to pay the stumpage rates in effect previous to the revision. Upon petition to the Secretary by both parties, the previous rates were restored for Crane Creek stumpage.
III.A.

2. Presentation to the Market not to Best Advantage to the Allottee
   a. Size of Logging Units
      (1) General desire of Indian owners to gain some immediate timber income.

      As could be expected, upon allotment the recipients thereof desired to obtain income from their timber holding. Since the reservation timberland was in an area with little access development, the immediate demand arose from the allottees with the more accessible timber. The several large initial sales of the 1920s were among other considerations predicated upon generating timber volume and value that would sustain the large costs of access construction. As such access was constructed, the access relationship of the more distant adjacent timberstands were changed so a continuing demand for income from succeeding groups was present. Upon the success of cutting in the initial large units, the idea of contracting all the reservation timberstands for cutover became popular. An early result of this idea was the attempt in 1929 to contract all the area north of the Quinault River in four concurrent large timber sales. At the same time, requests for fee patent, with the purpose of timber liquidation, were being advanced.

The depression years and World War II acted as a depressant on the "contract all" idea but it gained popular support again
in the latter 1940s and, eventually, resulted in the Boulder Creek, Crane Creek and Taholah contracts. The Queets area (the remaining approximately one-third of the area north of the Quinault River) did not receive a bid and was then subject to its own particular history. Evidence of the desire that all ownerships obtain some immediate income was the criticism of the single Taholah proposal of 1946-48, the requirement of advance payments, and the cutover in a period considerably less than a rotation.

(2) Opportunity to practice under a plan of orderly cutover of the forest.

The forest survey of 1915-17 was conducted with the view of developing forest management plans for the reservation on sound forestry principles. The resumption of allotting subsequent to the Payne decision was very discouraging to Foresters concerned. The clamor for individual interest income resulted in the contracting of five large units to be cut concurrently. These contained the bulk of the timber stands south of the Quinault River and provided for cutover in approximately 18 years, whereas the rate of cutover under an 80-year rotation would have doubled the time period for cutover the area. At least the large units offered a reasonable control of the cutting progression. In actual practice, the cutover of the units
proceeded much slower than contracted and tended to approach the rotation time interval. The cut was a progression of clear-cut, as was the general practice of the times. With the slower rate of cutting, regeneration of the stand by natural means was generally sufficient; however, it was recognized that a program of reforestation by plantation was also necessary to supplement the natural regeneration. In 1927-28 a second group of contracts of moderately large size were contracted and cut over concurrently with the much larger sales previously contracted. During the 1930s and 40s, the volume cut declined far below that of the 1920s.

Around 1935, the practice of very small sales on individual allotments became the contracting pattern with several hundred eventually occurring. The practice of individual tree selection was also introduced as a cutting method and was a point of contention and argument for many years. Initially, the large volumes contracted and the multiplicity of ownership under the large contracts, directed the Forestry program as one of the services to the contracts. Eventually, the multiplicity of individual allotments contracted had a similar effect even though the volume being harvested from the reservation had a large decline.

The investigative and management planning side of Forestry practice was relegated to a minor effort intermittently inserted as other work demands allowed. All during these years, there was continuing
examination of the Forestry program in terms of program funding in relation to the administrative fees collected with the result that staffing was controlled at a minimum level and this was clearly the intent of Congress.

(3) Opportunity to gain some income for a wide group of allottees within an immediate period and within contract length period.

The contracting of timber in volume occurred at three points in the Quinault cutting history:

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated Volume</th>
<th>Board Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920-23</td>
<td>1,903 MM</td>
<td>1,476 MM</td>
</tr>
<tr>
<td>1927-28</td>
<td>(est)</td>
<td>416 MM</td>
</tr>
<tr>
<td>1950-52</td>
<td>(est)</td>
<td>3,153 MM</td>
</tr>
</tbody>
</table>

As proposals were made by Forestry, they were met with the question as to how many individuals would be affected; and the groups who were not affected would request equal consideration. The net result was then a group of sales covering a major portion of the reservation presented for sale and cutting concurrently.

From the beginning, the timber contracts provided that the purchaser make advance payments upon the completion of the individual allotment contracts grouped under the general contract. Until 1950, the long-term contracts provided a series of advances totaling 30 percent within six years and 50 percent within nine
years. Recognizing the urgent demands for immediate income prospects, this was changed to 25 percent within 30 days and 50 percent within six years. Accordingly, the already present restrictive condition of prospective purchaser ability to invest capital in advance payments was increased. Because of the ameliorated by the conservative timber volume estimates, larger investment and the variance of cut-out experience by allotment, the estimated volumes were held to conservative levels to reduce the risk that advance payments would exceed actual timber present.

(4) Efficiency of sale preparation and administration of larger and fewer sales.

Already with the initial allotting, the timber sale administration was to be one of intensive record and field activity. With the allotting of the remainder of the reservation, the die was cast that all timber sales would be similarly complex. It was natural and necessary that the forest administration seek any of the remaining alternatives that would provide some efficiencies. The major alternative available was a few large sales. Even so, the intensive record of individual scale and monies, establishment of boundaries, and control of log taking remained and left little time for other management activity.

Timber sale administration can be divided into (a) accumulation of data and information on the proposed sale into a Forest Officer's
Report, (b) advertisement and contracting, (c) logging planning, (d) sale operation and regulation activity, (e) scaling, (f) record of timber volume and money, (g) rate redeterminations, modifications, etc. Large sales provide the opportunity to handle certain of these on a group basis and organization of the intensive individual allotment detail for efficient handling. In terms of volume of timber harvested, the efficiency differential can be several multiples.

(5) High cost of handling transportation system into the roadless area.

From the onset, plans for logging the Quinault Reservation were dependent upon extension of railroad systems which were the access to markets. These extensions would be solely for the transport of logs with the accompanying high cost against stumpage. It was therefore accorded equitable that the system cost be borne on a broad basis; however, the higher volume resulting would reduce the risk due to development cost and increase the selling potential. The cutting pattern of the times (progressive clearcut) also was in part the need to amortize the high construction cost in a relative short term. With the advent of national and regional attention to highway construction and the improvements in truck equipment, highways became more and more a system connection to market; however, the bulk of the uncut Quinault lands were still
relatively roadless and again the construction was to be borne by the stumpage alone.

b. Period of time to complete the timber contract

(1) Longer period allowed larger size.
   (Unit size is considered in the previous Section)

(2) Time interval between cutting of adjacent stands to allow the timber stand to regenerate.

From a regeneration view, the time interval is solely to provide seed source to the areas as they are cutover. Both progressive clearcut and staggered clearcut blocks appear to give success. The progressive clearcut areas, however, experienced successive fires and lack the effect of green timber fire-breaks present in the staggered block system. The staggered block became the desired system. Ideally, to regenerate itself completely, the cutting period would be long enough to have seed bearing trees regenerated on the first series of staggered block cutover to seed the last series cutover.

c. Alternative plans and views as to timber harvest and provision for income.

(1) Progressive harvesting of the reservation on a rotation of approximately 30 years with access by sale progression.

The progressive harvesting was the general pattern of the logging units contracted in the 1920s. It depended upon extension of the
railroad logging systems that logged the area south of the Quinault River on through the remainder of the reservation; and further, that the regional cut would progress beyond the reservation into the untapped timber resources of the Olympic Peninsula held in National Forests. The rejection of the bids on the four large Quinault units in 1929 followed by the depression and World War II halted this expansion and completion of the cutover of the reservation.

(2) Sale as one or a few large units at the same time.

This was a repetition of the progressive harvesting idea advanced again strongly after World War II. There was reluctance to expose all the remaining timber in one sale. The proposals to make a sale of part of the area at a time when even a large sale met with resistance on the basis that all allottees with timber holdings in the relatively untouched area north of the Quinault River should derive prompt benefit of whatever pattern of sales was decided upon. Eventually, agreement was to divide the area into four logging units to be sold at the same time.

(3) Purchase by the United States.

In 1939 the Department of the Interior submitted a draft of proposed legislation for the Government to acquire the lands of the Quinault Indian Reservation. Presumably, the lands would then be put into national park or forest status. The legislation did not receive attention beyond the proposal review.
(4) Incorporation of allotted timber holdings.

Various ideas centered on the pooling of the timber interests and issuance of shares were advanced from time to time. In 1944 the Acting Director of Forestry suggested an organization which might be named the Quinault Timber Association. Similar ideas had been expressed over the years as a solution to the regulation of income to all the timber owners and necessary support was never attained.

(5) Allow individuals to sell timber by allotment.

With the reduction of timber sale activity in the 1930s, individual allottees were able to locate demand for readily accessible timber. Literally hundreds of such sales have been made. Due in part to the use of selective logging which removed a minor part of the timber stand, there was allottee contention that they be allowed to enter into sale of their timber without Government regulation or contracting. This movement was ended in the case of Eastman vs. United States. In the 1960s the provision for issuance of Special Allotment Timber Cutting Permits was initiated. This permit allows allottees who are considered capable of handling their own timber business affairs to log and/or sell their timber upon issuance of the permit to them. Practically all sales of timber on the Quinault are now by special permit.
d. Crane Creek and Taholah Contracts.

(1) Presale discussion and preparation.

The area north of the Quinault River of which Crane Creek and Taholah are approximately two-thirds was proposed and advertised for sale as early as 1929, and bids were actually received but were rejected. In the early 1940s, interest was renewed and eventually evolved to the proposal of the Taholah Logging Unit in 1946. Various objections to the proposed sale were voiced and the alternatives of a cooperative association, Indian enterprise, a larger overall unit were forwarded and discussed. Subsequently, the proposal was made entitled the North Quinault Logging Unit. This would encompass all the area north of the Quinault River and satisfy the main objection to the Taholah proposal, i.e., that only a portion of the allotted interest of uncut timber would realize any stumpage return in the immediate future.

The Bureau of Indian Affairs was reluctant to undertake sale in one unit, and finally decision was arrived at to divide the area into four units, Taholah, Crane Creek, Queets, and Boulder to be advertised for sale at the same time.

(2) Solicitation of allottees consent to P/A.

Realizing that any large sale of timber or sale of the remaining uncut area was a complex undertaking, the task of checking inheritance records and location of allottees and heirs was carried
forward while the sale proposals and alternatives were being dis-
cussed. Some 1,380 allotments with 2,500 interests were involved.
By the time the Taholah, Crane Creek, Queets proposal was presented
in 1948, approximately 60 percent of the allotment owner interests
had signed consents to the sales. Information to the allottees
was presented in meetings and individual inquiries, both in person
and by letter. The level of interest among the timber owners
was high with resultant wide discussion and dissemination of informa-
tion. A vast majority favored prompt sale of the timber.

(3) Advertisement and subsequent contracting.
The Crane Creek, Taholah, Queets, and Boulder Creek Units were
advertised for sale in 1949. One bid for the Crane Creek Unit at
advertised rates was received by Rayonier Incorporated. They subse-
quently chose to forfeit the bid rather than execute the contract;
this was no doubt due to the decline in log prices during 1949.

Under authority of 25 CFR __________, the Boulder Creek
Unit was sold by negotiation to the Wagar Lumber Company and the
Taholah Unit was similarly sold to the Aloha Lumber Company. In
1952, the Crane Creek Unit was again advertised for sale. Rayonier
Incorporated submitted the only bid and executed the contract in
June 1952. The Queets Unit was not readvertised at the time and
treatment of the area became a pattern of small sales of allotments
that were the more accessible and of better quality. The fee
patent and supervised sale policy of the BIA also provided outlet for timber owners to market their lands upon which the timber was the principal value.

(4) Contract terms for specific purposes.

a) The advance payment schedule required 50 percent payment of estimated value within six years with 25 percent of execution of the allotment contract subsidiary to the general contract.

b) Stumpage rates to be paid in each succeeding quarter determined on basis of log prices and application of fixed ratios to the log prices.

c) Ratio changes as altered situations would warrant.

d) Review of stumpage rate in event PNLA log prices are not representative or are unavailable.

e) The Crane Creek contract provided for possible scale by a log scaling bureau.
III. A.

3. Early Removal of Higher Quality Timber Stands

a. The order of removal

Three parameters generally controlled the cutting progression. These were (1) the progressive construction of mainline and recording roads so that cost-production relationship was reasonably maintained, (2) the silvicultural system required the leaving of uncut blocks of timber for purposes of regeneration of the timber stand, and (3) the merchantable aspect of the timber encountered in the development area. The readily accessible areas on the south part of the unit were naturally entered first and they seem to have been the better quality stands. Generally, the unit has been developed in an orderly manner as indicated by the succession of maps of cutover. What advantage is present overall as to order of cutting based on taking better quality first is indeterminate since, eventually, all the designated timber will be cutover and the stumpage rate will reflect the grade present.

b. Logging Plans

Section 22 of the Crane Creek contract specifically provides that the purchaser shall submit a plan of his logging operations for each contract year. Section 2 of the contracts and Section 9 of the General Timber Sale Regulations also bear on timber to be cut and logging progression, and while less specific is used
to require logging plans for the Taholah cutting. Initial guidelines for the preparation of logging plans were developed from the inception of the contracts. They provided that the purchaser would submit a plan for the year's cutting to be reviewed by the Officer in Charge. Approval of the finalized plans is made for the Taholah Unit by the Superintendent; for the Crane Creek Unit, the Area Director. The plans have been flexible to allow changes in areas of logging to meet market conditions, income needs of individual allottees, silvical problems, and the salvage of timber damaged by blowdown or fire. At the same time, the economics of construction of the access to the timber stands and the staggered block cutting requirements limited the choices available. In determining both the road development and the block layout, purchaser and Forestry personnel maintained close field contact and examination so that the plans, when formalized and presented for review, contained by and large consensus already reached.

The key document to the formal presentation was the map of the logging unit showing logging and road development progression and the proposed new cutting blocks and road layout. At time passed and issues arose, the formal documents became more extensive and various field data listed. The map, however, remained the principal document. At present, the logging plan has become an intensive document developed and reviewed with
Indian representation, (B.S.F. & W.L.) purchaser, and BIA input. The plan investigations also serve to obtain factors necessary to the use of the U.S. Forest Service logging cost guides and the revision of stumpage rates.
4. Presale estimates of volume and grade were inadequate

Quinault timber sales from inception in the early 1920s used the cruise information of the 1915-17 forest survey. In the 1920s there was some apprehension as to these volumes due to the incidence of blowdowns. The sales proposed in the late 1940s also used the 1916 survey for volume estimation. The need for a current re-cruise was recognized and also that the overall volume present in the proposed timber sales was far in excess of the old forest survey estimates. This overall knowledge, however, was not available to the degree that it could be applied to volume prediction on each of the hundreds of individual allotments included in the timber sales proposed. Program facilities were not available to make the new cruise and the intensity that would be required to identify estimated volumes on each allotment would have entailed long delay in presentation of the timber sales even if the Forestry program was so supported by funds and personnel.

Under the premise that prompt action to present the timber for sale was overriding, the sales were made on the 1916 forest survey information and the advance payments calculated accordingly.

Grade information was available only as the experience of previous timber sales and comparison judgments of the foresters from their field examinations of the timber stands. As actual grade recovery from the units (Crane Creek and Taholah) became available, application was made in determination of log value used in the calculation
of stumpage rates.

The original grade recovery estimates had inaccuracies. Considering the major species, redcedar and hemlock, on the Taholah Unit the redcedar recovery has been lower in No. 1 logs and higher in No. 2 and 3s. On the Crane Creek Unit the redcedar recovery has been much better than estimated. The hemlock recovery on both units has been considerably less than estimated in the peeler and No. 1 grades.

The evidences of these lesser grades were immediately apparent when grading of logs became part of the scaling process. Grade recovery data by year and accumulations by year are available.

It is difficult to measure the effect of these estimates as to value received. The long-term nature of the contracts has generally required that all the factors be examined in the light for changes that have occurred in markets and operating procedures. The volume cut under the timber contracts beyond the sale estimates had limited effect on appraisal since average industry costs were used with only partial adjustment as to sale character. The amount of timber taken was measured by actual scale and payment received accordingly. The contracts also contained provisions for price adjustments which, among other factors, would consider the additional volume to be cut. The increase in sale volume over estimates was also due in part to the changes occurring in respect to merchantability of a particular timber stand. The viewing of grades of logs also changes as the log values rise and utilization practices progress.
III.A5. Use of inaccurate and improper scaling procedures.

The log production from Indian lands has traditionally been scaled by employees of the BIA. The method employed is stated in the General Timber Sale Regulations of 1920 and the Standard Timber Contract Provisions of 1960. These employ in general recognized scaling rules and techniques. Scaling frequently reflects the practical consideration of the physical conditions that exist at the scaling location. Differences as to specific application of rules have occurred and special rules are used where specifically provided by contract or regional rules. Where Indian timber contracts have provided for and used the services of Scaling Bureaus, or scaling by another Federal agency, the BIA has previously entered into agreements as to how the scaling is to be accomplished and the scaling rules to be followed.

The West Side (Coastal) scaling procedures have required, due to the many land ownerships of the area, that logs be marked by a registered brand as they are yarded so that ownership is defined. Such practice fitted the multiple ownership of Quinault. The log brand is recorded in the scaling action. The handling of the scale sheet recording the log is prescribed by intensive instructions as to record and payment to the stumpage owner. The procedural flow is as follows:

1. A logging plan consisting of several logging blocks is prepared for each logging year.
2. Log brands are assigned by allotment and the logs are branded
as they are felled and bucked according to location by property lines.

(3) Logs are yarded and loaded and a truck ticket prepared listing the number of logs and brand.

(4) Upon delivery to the scaling point, log load is scaled and recorded by brand.

(5) Scaling Bureau issues scale record documents in required detail.

(6) Scale documents are posted to provide volume total and total by allotment.

(7) Scale report by allotment prepared and monthly Report of Timber Cut totaling all scale reports prepared.

(8) Scale reports posted to Timber Money Record.

(9) Journal Vouchers prepared for distribution of monies to appropriate accounts.

Parallel with these actions are control and audit processes which include technical and accounting check of the actions, estimates of timber cut and not scaled, and advance cutting, collection of advance deposits from the purchaser.

Accepted practice is to use the scaling systems and rules common to the market area as the selling values and costs used to determine the conversion return as based on the expectation of the market. Changes in scaling rules effect the log value reflected in the market as the rule becomes general use.

Where a long-term timber contract has provisions for re-examination of stumpage
rates and inserts current market value which reflects the common scaling rule, a rule of the contract can be changed by the realization adjustment, and subsequent use of the common rule can be had without further adjustment.

Water scaling was a common practice for scaling logs since much of the log movement was by rafts. This method became less acceptable as log values increased because it did not allow the accuracy of measure and observation demanded in the marketing of logs. It was discontinued for Indian logs in

Acceptance of third party (Scaling Bureau) scale became widespread by 1950 and it was natural that the BIA institute such scaling in Indian timber contracts.

The Crane Creek contract provided for such scaling and the Taholah contract was modified March 21, 1956, to allow use of a Scaling Bureau. The change required the purchaser to enter into an appropriate agreement with the Scaling Bureau. A corresponding scaling agreement between the Bureau of Indian Affairs and the Scaling Bureau was also executed.

With the adoption of scaling by the Scaling Bureau, the Scaling Bureau's rule respecting scaling, grading, and merchantability became the applicable rules as to material to be taken as a merchantable log.
This resulted in certain changes as the Scaling Bureau rules differed substantially from those practiced by the BIA and stated in the contract and general provisions. The most obvious of these include:

1. Scale on the basis recognizing 40 feet as the maximum length of a single log.
2. Utilization to a diameter of 6 inches in the tops.
3. Minimum trim allowance of 8 inches.
4. Rules as to calculation of defect and measurement of diameter.
5. Designation of the log grade as scaled.

The 40-foot rule had the effect to reduce the volume over the rules practiced by the BIA. Various opinion has been expressed as to what the exact effect is on volume and as a result of a study made at the time, the BIA settled on a volume difference of 12 percent. The other significant results of the scaling change was the development of actual log grade recovery and the utilization of logs to a smaller top diameter. With the ratio adjustment of 1955, prerequisite adjustment was made to the stumpage rates for the 40-foot rule change and this was carried forward in the subsequent evaluations used to determine ratio changes. Subsequent evaluations also introduced log pricing based on the grade recovery experience obtained from the Bureau Scale and other factor changes possible because of the more factual data and market analysis.
III. A. 6. Inadequate Logging Practices

Initial development of the reservation forests had to consider amortization of the costs of access construction to make the timber marketable. Logging in the 1920s was characterized by the use of railroads whose construction costs required large volume of timber per mile of construction. Such was the condition present on the Quinault; access and logging of the timber would bear such costs only by clearcutting as the rail system progressed into the timber areas. The factor of timber sale size combined with clearcutting to make the timber merchantable.

A. Selective Cutting Methods

Emphasis on selective cutting in the Quinault forest came with the regulations of 1936 which derived from the Indian Reorganization Act. Initial application included two patterns: (1) leaving of trees for stream and scenic protection and effect, (2) removal of a minor part of the timber stand with planned return periodically for additional cuts (individual trees selected for cutting).

These methods (generally applied to East Side forests of the ponderosa pine region) backed by official policy was proved to be inapplicable to the Quinault Forests due to the blowdown eventually experienced. Whereas, special treatment was desired for stream and scenic values, leave strips and partial overall cuts were not the answer, to the blowdown that would eventually occur. While special treatment is desired in regard to the
b. Staggered Clearcut Blocks

The staggered clearcut falls within the definition of selective cutting. The words selective and selection as applied to timber cutting have been subject to hairsplitting interpretation; and as presently defined, conflict with previous understandings of the words.

The progressive clearcut system evolved to the staggered clearcut block system as the result of several factors, both economic and silvicultural, but was possible by the economic changes of (1) technological advance in the design of road building and log hauling equipment and (2) ratio of product value to cost of production. Another economic effect was that the partial cut allowed quicker progression over the logging unit area and thus opportunity for more allottees to share in the earlier returns from stumpage. The silvicultural aspect considered the fire-break effect of residual green timber blocks and the more positive seed source. From an aesthetic view, the large desolate cutover aspect was dimished.

c. Modification for Salvage Activity

Within a few years after start of logging on the Taholah and Crane Creek Units the economics of utilization were such that
(1) Waste Scale

The material that is waste scaled comes from two basic causes: the material was merchantable by piece standard and should have been taken, or the material resulted from mistreatment of a felled tree. The waste scaler methodically examines the cutover area considering the conditions that prevailed in the uncut stand. Excessive leave of waste is not an acceptable logging performance and the Purchaser may be required to relog an area where excessive waste is encountered. In areas where defect and residue is present in large volume, the waste scale is a difficult and time-consuming task requiring use of insight gained from experience with the logging operation.
small size and pieces of material had indicated demand. All
parties were interested in salvaging this material that would
otherwise remain unauthorized and modifications of the contracts
were completed to provide for the taking of materials for pulp­
wood, shakeboards, and shingle bolts. The production was made
optional to the Purchaser. Production under the salvage modifica­
tion never reached expectation and has been sporadic.

d. Residues present after logging

The cedar stands are characterized by high residue volume, the
result of dead trees and deadfall naturally present and the
effect, and slash from logging. Since cedar is more predominate
on the Taholah Unit, this is a more extensive problem there. The
residue is said to (1) block regeneration, (2) be a fire hazard,
and (3) be unpleasing in appearance. However, until the economic
solution of removal of the residues arrives, these drawbacks
must be borne if the stands are to be logged, nor are they unbear­
able if the natural processes are allowed to occur and maximum
utilization available to the times is exercised. The usual
alternative advanced is to burn the residue. Such action requires
that provisions for planting the area be available. Usually
ignored in the burning alternative is a determination of the
damage risk present.

The logged-over areas of the Crano Creek and Taholah Units present
a poor aspect to the casual observer. The stands, particularly those of cedar, are very decadent and contain high volume of dead standing and down timber. When the area is logged, the slash of the green timber is added to the debris already present although the dead material may be somewhat reduced by the taking of salvageable material.

(3) Slash and Residue Treatment

Decision was made early that, with very limited exception, the slash would not be disposed of by burning. Several factors were considered in this decision.

a) The residues contained large amounts of materials currently salvageable or with prospects of salvage attention.

b) Burning of the slash areas would require planting to regenerate the timber stand and the prospect of reforestation funds were not present.

c) The cost of burning, aside from a high risk of timber and property damage, and of planting were not economically sound when natural regeneration could be obtained.

d) The fire risk of the untreated slash did not appear excessive if reasonable cautions were exerted.

e) Residues left on the ground following clearcutting serve a useful purpose in controlling the movement of soil in areas of high rainfall.

f) A study of the U.S. Forest Service indicated hemlock regeneration chances are more favorable when the area is not burned.
c. **Stream Treatment**

Attention began to be focused on the effect of logging on streams in the early 1960s. The timber contract general regulations provided for the leaving of streamside strips, but this was an aesthetic purpose and past attempts at leave strips had resulted in eventual blowdown of the reserve timber. As a result of the new attention, meetings were held to resolve the problems of logging in relation to the fisheries aspect of the streams. While considerable material was available discussing proper stream treatment, the evolvement of this information into practices satisfactory to all the parties reviewing the stream treatment was slow. Meanwhile, the Taholah and Crane Creek purchasers had proceeded with stream cleanup methods as directed by the Branch of Forestry.

Particular problems associated with the streams are:

a) The timber owner is most concerned with receiving the timber revenue and does not wish to leave several thousand dollars' worth of timber in leave strips on the allotment, and the loss to blowdown risk is high.

b) Many fee patent lands are astride streams and outside the control of the BIA.

c) Streams may have been in poor condition prior to the logging which exposes this condition.
d) The fisheries benefits accrue mainly to the resident population who is generally not the land-timber owner of the timber to be logged.

Differences as to what would constitute proper treatment has been a problem which has been reduced materially with the recent intensive development of logging plans.

III. A. 7. Inadequate Road System and Construction Standards

The Taholah and Crane Creek road system tends to be castigated because there is not a readily identifiable record to show the roads were required to be built in a certain manner. It is recognized that the road construction quality has generally been satisfactory and comparable to logging roads built by other public agencies to log timber. While they do not meet the demand of a public road system they were never required to, nor should they have to meet such standards at the expense of the stumpage.

The road systems required were both extensive and expensive, generally requiring substantial rock fill and the cost is borne by the stumpage owner. The roads were required to bear and sustain a heavy timber volume traffic. In addition they have adequately served other access needs. That they have been able to sustain the timber harvest traffic on a year-around basis in a climate of very heavy rainfall, speaks the quality of the construction. In many cases the roads evolved have a standard higher than what would be reasonable to charge against stumpage.
While detailed road plans were not drafted, the plans for logging the units and the pattern of road progression clearly show the roads did not just happen. The road system layout and the progression of construction is and was generally controlled by the factors of silvicultural treatment, topography and the economics of road cost amortization. In addition effect on the system has been present from the demand that certain allotments be approached to attain earlier income to the timber owners.

It is generally recognized that logging roads are the major source of soil movement and erosion on logging units. On the Quinault roads have also created dam effect in swampy areas and restricted drainage of such areas. Control of these have been considerations of road construction and location, and error and faulty construction experienced has been quite limited. Over the years recognized standards of construction has experienced change and the units roads have not been immune to such change.
Improper Marking of Allotment Boundaries

The timber contracts generally require the Purchaser to locate and maintain allotment property survey markings. Since the logging is by staggered clearcut blocks which may contain several ownerships, the line running requires location of lines and corners both internal and external to the blocks. These activities are accomplished prior to the logging operations and subsequent to the logging lines are re-identified if salvage operations are expected to occur. Corner locations are maintained and re-established if damaged or destroyed by the logging operation. As the timber is felled and yarded, the Purchaser, based on the line location, marks each log developed from the trees with a predetermined ownership mark. As adjacent settings and blocks are logged, rerun of lines is frequently necessary to tie line location to property corners. The administrative activity of the Bureau Foresters includes verification of these performances by the Purchaser and assistance to the Purchaser where line and corner location problems are encountered.
III. B. Powers of Attorney--Misrepresentation, Undue Influence and Coercion

Critics of the manner in which the Bureau of Indian Affairs presented timber sale proposals and obtained the timber owner consents generally ignore the long series of events starting in the late 1920's and culminating in the long-term Crane Creek and Taholah contracts. They tend to make judgments as to how things should have proceeded by invention of conditions.

The persons with timber ownership involved in the timber for sale were scattered all over the United States. The only practical manner to reach this widespread ownership was by general information circulars. Due to the longstanding debate and interest of allottees as to gaining income from their allotted timber, the Indians had already gained considerable knowledge as to the procedures required in the sale of Indian timber by personal contact with Bureau employees and from general meetings held.
Powers of Attorney Obtained for Crane Creek and Taholah Timber Sales

The sale of timber on the area north of the Quinault River was a popular demand of the Indian stemming from the allotment of the area following the Payne decision. In 1929 plans were completed to offer the area for sale in four large blocks. One bid was received on each logging unit but the bids were all rejected by the Secretary of the Interior after the sales became the point of extensive criticism. Thus, the allotted owners of the area were acquainted in the 1920's as to the procedures of sale by the Bureau of Indian Affairs. The depression decade followed and intense interest again developed following World War II.

The file period 1945-1949 covers the development of the timber sales north of the Quinault River that are the basis of the subsequent timber harvest and land treatment. The initial proposal of the Taholah Unit was vigorously opposed by the Indians, particularly the Quinault Council, because it did not provide for the sale of everyone's allotment. The second proposal, the North Quinault Unit was not acceptable because of its size. The final proposal, division into four units for sale at the same time was the compromise and decision by the Bureau.

The following points are supported fully by the files.

1. Discussion and proposals for selling the timber north of the Quinault River were extensive and numerous ranging back to the mid-1920's.

2. The large majority, if not entire Indian opinion, was for sale of all the timber and cutover as soon as possible.

3. Bureau policy was to discourage, if not to outright refuse, individuals from making separate sale of their allotted timber of the north area by either their own action or by the Bureau.

4. Industry exerted opposing pressures for large-few sales and for small-many sales.

5. Industry interest in the sales finally advertised was widespread as the sales were being developed.

6. Economic activity in the forest products industry was high in the mid-40's but declined at decade end and at the time the sales were presented to the market.

7. Sustained-yield as exemplified by cut of a recurring calculated allowable volume each year had to be compromised to meet the demands of the many owners for more immediate cutover and income.
8. Inquiry and reply as to the sale of timber and the sales finally evolved created a common public knowledge.

The obtaining of the powers of attorney to sell the allotted timber was an extensive effort of years due to the number and heirship of ownership. By the time the reports were completed that were the basis for advertisement of the timber sales, approximately 60 percent of the consents had been obtained and by time of contracting, the percentage was over 90 percent.

The methods of obtaining the allottee consent through the powers of attorney was complex since ownership involved persons scattered all over the United States. The only practical manner to reach the widespread ownership was by general information circulars. Due to the long-standing debate and interest of allottees as to obtaining income from their allotted timber, the Indians had already gained considerable knowledge as to the procedures required in the sale of Indian timber by personal contact with Bureau employees and from general meetings.

Thus, the powers of attorney were acquired principally in the period 1946-1949, and continued into the contract period. Both mail and personal contact were used. The accumulation was initially for the Taholah Unit area but this was expanded to the entire area and sorted to the eventual unit divisions.

Personal testimony - Wilcox, Skarra
Custody of Records - Hoquiam Field Station (Records Center)
Samples attached