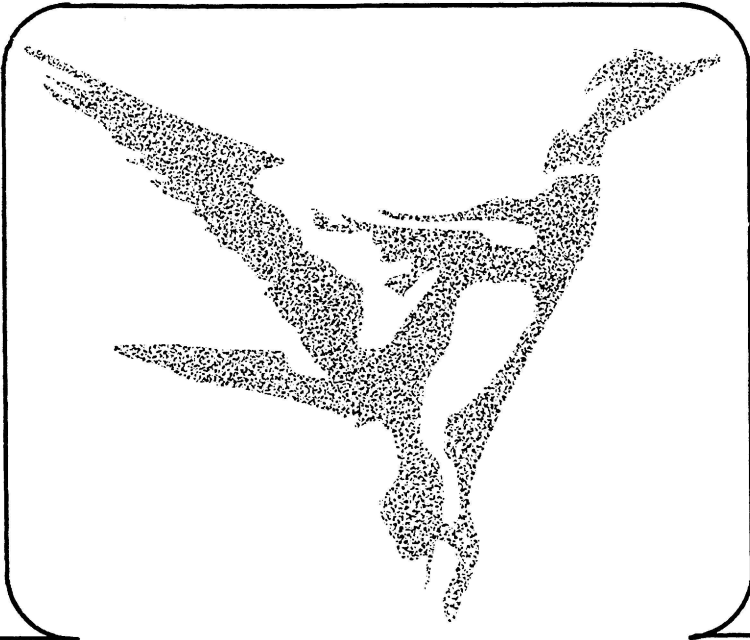


FISH AND WILDLIFE COMPENSATION



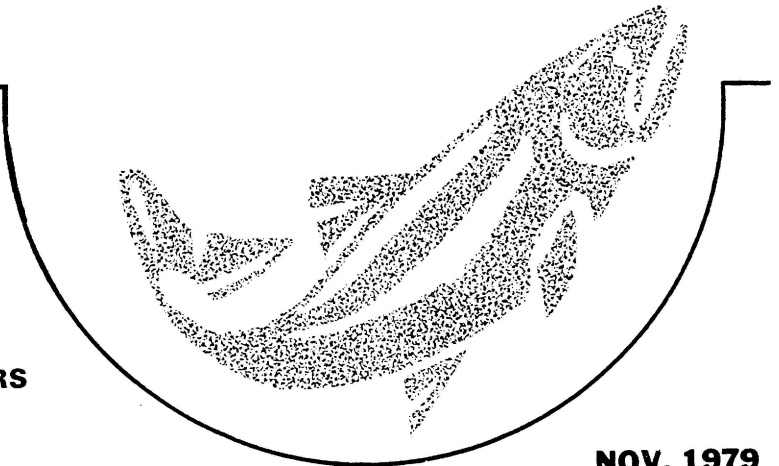
**LOWER
SNAKE
RIVER**

DESIGN MEMORANDUM NO. 6

WILDLIFE COMPENSATION AND FISHING ACCESS SITE SELECTION



**U.S. ARMY
ENGINEER DISTRICT
WALLA WALLA
CORPS OF ENGINEERS**



NOV. 1979

NPDEN-TE (27 Mar 84) 3rd Ind
SUBJECT: Lower Snake River Fish and Wildlife Compensation Plan, Letter
Supplement 1, Element X Site Location Modification, to DM No. 6


DA, North Pacific Division, Corps of Engineers, P. O. Box 2870, Portland,
Oregon, 97208 7 May 1984

TO: Commander, Walla Walla District ATTN: NPWEN

The subject letter supplement is approved. Concurrence in the action must
be obtained from the Franklin County Planning Commission prior to purchase
of the land.

FOR THE COMMANDER:

1 Incl
nc


HERBERT H. KENNON, P. E.
Chief, Engineering Division



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BUILDING 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

REPLY TO
ATTENTION OF:

NPWPL-ER

25 January 1984

SUBJECT: Lower Snake River Fish and Wildlife Compensation Plan, Letter Supplement 1, Element X Site Location Modification, to D.M. No. 6

Commander, North Pacific Division
ATTN: NPDEN-TE

Enclosed are 10 copies of the subject letter supplement for your review and approval.

FOR THE COMMANDER:

1 Incl
as


M. G. BRAMMER, P.E.
Chief, Engineering Division

NPDEN-TE (25 Jan 84) 1st Ind

SUBJECT: Lower Snake River Fish and Wildlife Compensation Plan, Letter Supplement 1, Element X Site Location Modification, to DM No. 6

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870, Portland, Oregon 97208 1 March 1984

TO: Commander, Walla Walla District ATTN: NPWEN

1. The subject Letter Supplement is returned for revision.
2. Justification presented is not sufficient to approve the larger Element X acquisition area. Areas considered must be directly affected by the Lower Snake River projects. The supplement should provide the rationale and justification for expanding the area considered project-affected from that approved in DM No. 6.
3. Provide evidence that the change in area of consideration has been coordinated with other Federal and State agencies, especially the planning commissions of counties involved. A notice should be issued showing the changes and provisions allowed for public comment.
4. The FY 85 budget presentation has changed completion of land acquisitions to indefinite until the March 1983 Special Report for Congress has been acted upon.

FOR THE COMMANDER:



HERBERT H. KENNON, P.E.
Chief, Engineering Division

1 Incl
6 cys, 4 cys wd

Design Memorandum No. 6

LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN
Wildlife Compensation and Fishing Access Site Selection

Letter Supplement No. 1
ELEMENT X SITE LOCATION MODIFICATION

1.01. BACKGROUND.

The Lower Snake River Fish and Wildlife Compensation Plan (LSRFWCP) recommended "Acquisition of approximately 400 acres of riparian habitat in fee and 8,000 acres of farmland in easement surrounding these riparian lands to provide partial compensation for project-caused pheasant and quail hunting losses and additional hunting opportunity as a substitute compensation for nongame species." Design Memorandum No. 6 (DM 6), November 1979, described off-project compensation Element X relating to compensation of farm game losses. Also, DM 6 indicated that "Only lands in the Counties of Asotin, Columbia, Garfield, Walla Walla, Whitman, and portions of Adams and Franklin will be considered for this element (see Plate 1 and Page 5 of Appendix A)."

1.02. PURPOSE.

During 1981 and 1982, Walla Walla District coordinated with Washington Department of Game (WDG) in the preparation of a proposed revision of the LSRFWCP (resulting in the March 1983 Special Report for Congress). Because of the recognized value of some of the riparian habitats in portions of Benton and Franklin Counties in the project-affected areas, it was agreed to modify the acquisition area for Element X. A 10 May 1982 letter (Exhibit 1) from Walla Walla District (Colonel Thayer) to WDG (Assistant Director Lawrence) confirmed that modification in the form of a revised map (Plate 2 of Appendix A in DM 6).

1.03. RECOMMENDATIONS.

Based on the above information, it is recommended that the defined area for acquisition of Element X lands as required under the LSRFWCP shall be modified as depicted in Exhibit 2 of this Supplement.

NPWPL-ER (25 Jan 84) 2nd Ind
SUBJECT: Lower Snake River Fish and Wildlife Compensation Plan, Letter
Supplement 1, Element X Site Location Modification, to DM No. 6

DA, Walla Walla District, Corps of Engineers, Building 602, City-County
Airport, Walla Walla, WA 99362 27 March 1984

TO: Commander, North Pacific Division
ATTN: NPDEN-TE

1. This is in reply to comments in your 1st Indorsement.
2. Reference: NPDEN-TE 1st Indorsement dated 15 January 1980 to NPWEN basic letter of 27 November 1979, subject: "Lower Snake River Fish and Wildlife Compensation, DM No. 6, Wildlife Compensation and Fishing Access Site Selection," which approved the general site selection criteria and authorized acquisition of off-project lands in southeastern Washington for fishing access and game bird hunting.
3. The purpose of this letter supplement is to modify the area of consideration for acquisition of Element X lands to better represent the human populations affected by the lower Snake River projects.
4. A recent report entitled "Special Report For Congress, Lower Snake River Fish and Wildlife Compensation Plan: March 1983," was prepared by the Walla Walla District as a 5-year review of the implementation of the Compensation Plan. This letter supplement is intended to accomplish a similar purpose, i.e., to identify problems and means to alleviate those problems relative to extensive discussions between Walla Walla District personnel and Washington Department of Game (WDG).
5. During field contacts with landowners in southeastern Washington by WDG over the past 3 years, it was found that the "willing-seller, willing-buyer" concept of off-project acquisition of Element X lands was most acceptable in Franklin and Walla Walla Counties. Because of the apparent availability of a large land parcel in Franklin County for inclusion in the off-project program, it became necessary to reevaluate the area designated for Element X site selection in the subject design memorandum. Based on the number of "willing-sellers" in Franklin County, the difficulties of obtaining lands in other parts of southeastern Washington, the quality of habitats which meet present selection criteria, and the proximity of Franklin County to the Tri-Cities and other population centers affected by the projects, it is felt that the modification to the area for acquisition consideration is well justified.
6. Previous negotiations with WDG have resulted in the proposal to include more of Franklin County and part of Benton County in the area of consideration for Element X acquisitions. In 1981 and 1982, personnel from Walla Walla District and WDG met frequently to coordinate the preparation of the Special Report For Congress mentioned above. During this time, WDG consistently proposed that large portions of eastern Washington be added to the original geographical area of consideration. Colonel Thayer (District Engineer) finally determined that any additional lands should be limited to

MPWEN 2nd Ind 27 March 1984

SUBJECT: Lower Snake River Fish and Wildlife Compensation Plan, Letter Supplement 1, Element X Site Location Modification, to DM No. 6

the most promising areas in the affected region which, in this case, were considered to be the lower Yakima River area in eastern Benton County and the Pothole Lakes area encompassing the westerly portion of Franklin County. This is the rationale behind his letter of 10 May 1982 to WDG.

7. WDG has previously contacted the Benton County Planning Commission and they concur with the proposed acquisition program. The Department is planning to contact the Franklin County Planning Commission regarding proposed acquisitions in the revised selection area. The Franklin County Comprehensive Plan (August 1979) designates lands in the revised area as Recreation/Public Use along with agricultural uses. Thus, the acquisition and management of Franklin County lands for public hunting and wildlife-associated recreation would be consistent with the Comprehensive Plan. A news release concerning the revised area of consideration has been sent to area newspapers to inform the public of the action.

8. Specific parcels proposed by WDG for acquisition within the revised area were described in "Letter Supplement No. 3, Yakima River and Bailie Boys Ranch Areas, Lower Snake River Fish and Wildlife Compensation Plan, Design Memorandum No. 2A, Wildlife Compensation and Fishing Access, 21 December 1983."

9. It is recommended that the subject Letter Supplement No. 1 be approved as WDG would like to initiate appraisals as soon as possible.

FOR THE COMMANDER:

1 Incl
nc


M. G. BRAMMER, P.E.
Chief, Engineering Division



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BUILDING 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

REPLY TO
ATTENTION OF:

NPWPL-EA

10 May 1982

Mr. Rick Lawrence
Assistant Director
Washington Department of Game
600 North Capitol Way, GJ-11
Olympia, Washington 98504

Dear Mr. Lawrence:

Following are our comments on the proposed criteria revision for the off-project wildlife compensation program. These comments emanated from the 1 April 1982 meeting between our respective staffs and our review of your 26 March 1982 "Revision of Criteria for Off-Project Land Acquisition." General aspects of the revision are discussed herein; more specific comments are indicated on the attached copy of your draft criteria revision.

a. Funding for this program will be budgeted such that no new purchases or easements are consummated after FY 87 which is the end of our fish hatchery construction program. Review of the program's progress should thus occur by the end of FY 85 to allow time to reprogram the funds into further on-project developments if so desired. However, a conceptual problem exists concerning the use of on-project development as a "fall-back" position to failure of the off-project program; the off-project habitat development was designed to provide compensation which could not be achieved with on-project developments. Therefore, the suggestion that the acquisitions funding be added to on-project developments indicates a previously unrecognized potential exists for further intensive habitat development on existing project lands and thus the off-project acquisitions are needed at a significantly lesser degree, if at all. Recommended developments of on-project lands should be based on the major evaluation of mitigation progress scheduled to be accomplished by your department and the Corps during FY 85. Previously estimated levels of mitigation resulting from on-project developments appear to be conservative based on current data.

b. The areas of consideration for acquisition of Element X and Y lands should be restricted to that shown under the original criteria, except to include an area in the southeast portion of Benton County, shown as a dashed line in Inclosure 1. Because the Lower Snake River Compensation Plan was designed as mitigation to populations (including human) which were most affected by the lower Snake River dams, it would be unreasonable to acquire lands outside the influence of those projects.

10 May 1982

c. Option three under "Land Selection Criteria" pertains to acquisition by long-term (25-plus years) leases or easements. It is unclear why the Department feels landowners will be more receptive to the long-term rather than perpetual agreements; landowners have consistently expressed the desire to only engage in short-term agreements (3-5 years). Funding provided for such acquisitions would be as lump sums equal to current market value of the parcels or the estimated cost of perpetual easements, whichever is least. Under this option, WDG must agree to accept responsibility for negotiation and funding of future leases or easements. Furthermore, the Corps will only be responsible for development on the original long-term agreements; development under future agreements (if different from original parcels) would then become the responsibility of WDG.

d. Because of the problems involved with administration of short-term easements and public opposition to long-term easements as evidenced by contacts with landowners during the previous 18 months, we recommend that fee purchase of a few large tracts be emphasized as the most promising method to achieve the goals of the program. Although we agree to the attractiveness of acquiring many small tracts throughout the seven county area, public opposition in some counties suggests the dispersion of off-project acquisitions will be less than ideal. We suggest the criteria permit acquisitions of large tracts of suitable habitat, notwithstanding their locations within the seven county area. The aspects of dispersion of acquisitions and the maximum acreage per acquisition should be fully addressed.

e. We suggest the criteria allow fee acquisition of parcels which may satisfy more than one element. WDG and the Corps should jointly determine the acreages to be attributed to each element from individual parcels. The acreages of potentially developed and undeveloped portions of each parcel should be determined prior to acquisition.

f. We feel that continued responsibility of the Corps for Element Y acquisition adjoining project lands is the most practical situation in view of the considerable efforts already expended on this aspect of the program by our real estate personnel. Revised criteria should designate the acquisition of Element Y lands not adjoining project lands as the responsibility of WDG. Non-adjacent Element Y lands should only be acquired in conjunction with Element X and/or Z lands.

g. If the requirement for ridge-top road access were omitted from the Element Y selection criteria, acquisition of several parcels adjoining project lands likely could occur. Because the requirement for public access from outside project lands is not addressed under the "Special Report: Lower Snake River Fish and Wildlife Compensation Plan" approved

10 May 1982

by Congress, this criteria change would not require Congressional approval. Your concurrence on this aspect is requested so that this change may become effective.

h. Sharecropping and/or grazing of fee lands should be carefully reviewed because of the general degradation of wildlife habitat values which occur under these management practices. Ratios of production acreage to "hunting" acreage on large tracts of fee lands should be investigated to ensure compensation goals are achieved.

i. It will not be possible for your department to utilize land acquisition funds under this program to achieve O&M responsibilities. Your suggestion to decrease the game bird stocking requirements and use the resulting savings for O&M funding is likewise unacceptable.

j. It should be stressed that the revised criteria will not become effective before summer 1983 at the earliest.

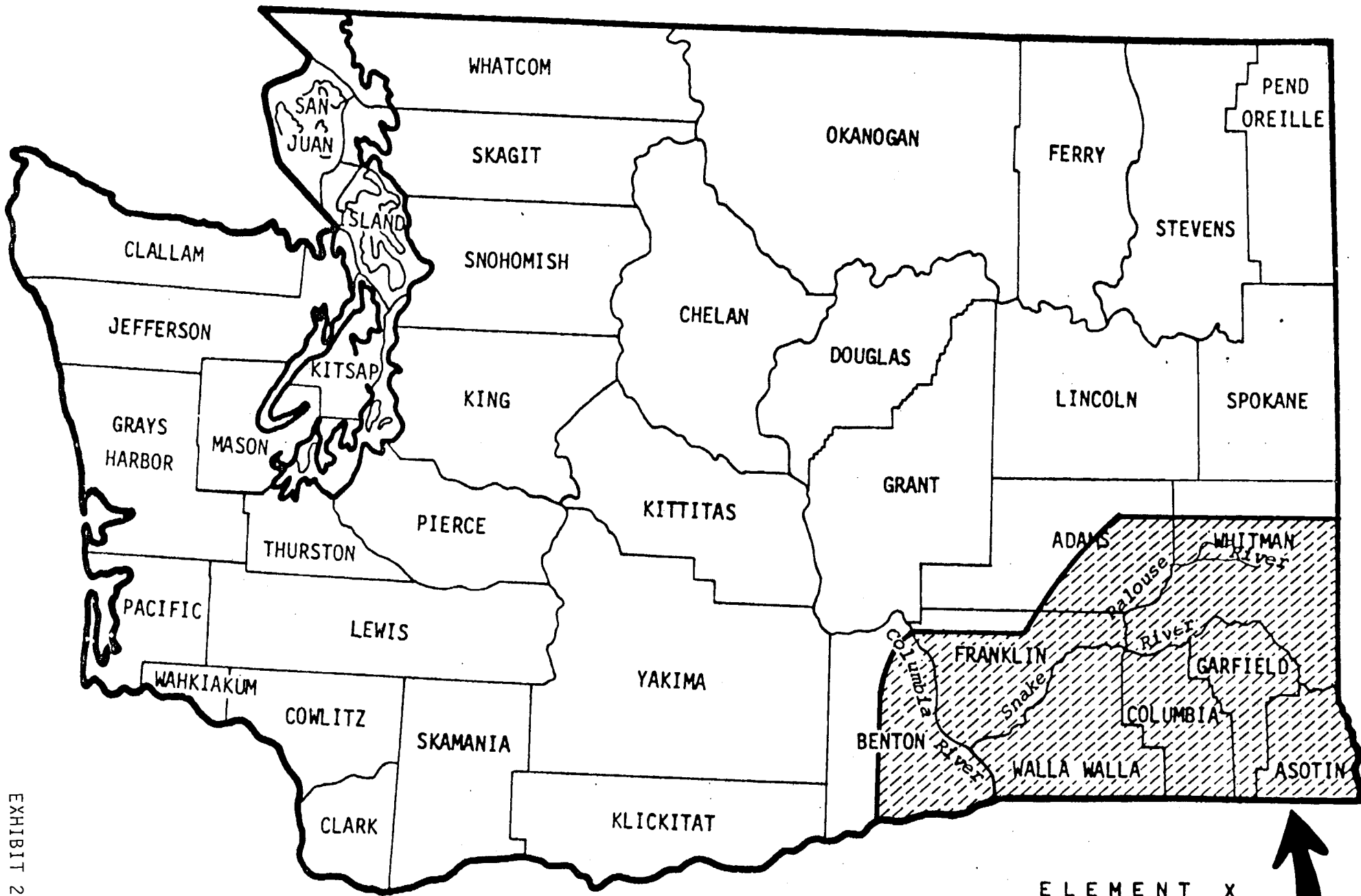
k. The criteria revision should contain a section in which the responsibilities of both agencies are clearly defined.

l. Revision of the program should identify the need for Corps participation in early field inspections of potential sites to identify biological potentials relative to selection criteria.

In conclusion, we again emphasize the need to broaden the selection criteria to facilitate the opportunities to fulfill the overall goal of the program - compensation for wildlife habitat losses. It is our opinion that fee acquisition of large parcels of lands which satisfy requirements of two or three elements is the most likely means of achieving our goal. We will prepare a draft report to the Chief of Engineers incorporating your input. Draft copies will be provided for your review and comment in the near future and meetings between our personnel will be scheduled as required to finalize our report.

2. Incl
1. Element X Map
2. Revision of
Criteria

H. J. THAYER
Colonel, CE
District Engineer



E L E M E N T X



OVERALL GEOGRAPHIC AREA CONSIDERED

NPDEN-TE (27 Nov 79) 3rd Ind
SUBJECT: Lower Snake River Fish and Wildlife Compensation DM No. 6,
Wildlife Compensation and Fishing Access Site Selection

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870
Portland, Oregon 97208 11 March 80

TO: District Engineer, Walla Walla

Action taken on our 1st indorsement comments is satisfactory.

FOR THE DIVISION ENGINEER:

1 Incl
3.wd



HERBERT H. KENNON
Actg Chief, Engineering Division



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS

B.D.G. 603, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-08

27 November 1979

SUBJECT: Lower Snake River Fish and Wildlife Compensation DN No. 6,
Wildlife Compensation and Fishing Access Site Selection

Division Engineer, North Pacific

Forwarded under separate cover are 15 copies of the subject report for
your review.

FOR THE DISTRICT ENGINEER:

1 Incl (15 cys)
as fwd sep

F. W. Parsons
F. W. PARSONS
Acting Chief, Engineering Division

NPDEN-TE(27 Nov 79) 1st Ind

SUBJECT: Lower Snake River Fish and Wildlife Compensation DM
No. 6, Wildlife Compensation and Fishing Access Site
Selection

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870,
Portland, OR 97208 15 Jan 80

TO: District Engineer, Walla Walla

The design memorandum is approved subject to appropriate action
being taken on the attached comments.

FOR THE DIVISION ENGINEER:

1 Incl
1. wd
Added 1 Incl
2. Comments

Phillip L. Cole
PHILLIP L. COLE
Chief, Engineering Division

NPWEN-08 (27 Nov 79) 2nd Ind
SUBJECT: Lower Snake River Fish and Wildlife Compensation DM No. 6,
Wildlife Compensation and Fishing Access Site Selection

DA, Walla Walla District, Corps of Engineers, Bldg. 602, City-County
Airport, Walla Walla, WA 99362 6 February 1980

TO: Division Engineer, North Pacific

1. The design memorandum has been revised or clarified, as requested in Comments 1, 2, 3, 5, and 6 of the 1st Indorsement. The remainder are answered below:

Comment 4: Since we have no information on individual sites at this time, it does not appear that an assessment could improve upon the existing EIS. An evaluation will be made, however, prior to final acquisition to determine if an environmental assessment should be made.

Comment 7: We agree that the real estate cost estimates for the Element X and Z lands appear high, and we do plan to monitor them very closely.

Comment 8: Both State and Corps operation and maintenance costs were in error and have been revised on the attached pages.

Comment 9: All costs, except for the gamebird replacement costs, were given at October 1979 levels, and this has been clarified. As we have no revised gamebird program from the State and since it was to be a lump sum payment, we have no basis for revising the 1975 price levels for the gamebird replacement program.

2. A copy of the comments from Washington Department of Game and our answers are also inclosed.

FOR THE DISTRICT ENGINEER:

1 Incl
Added 1 Incl
3. WDG Comments & Answers


W. E. SIVLEY
Chief, Engineering Division

COMMENTS ON LOWER SNAKE RIVER FISH
AND WILDLIFE COMPENSATION DM NO. 6

1. Section 3, para 3.02. The last sentence doesn't agree with Plate 1. There are no "Element x" lands shown on Plate 1 in Adams Franklin or Asotin counties. Clarify.
2. Section 4, para 4.06. Suggest a representative from the Corps be included on the selection team.
3. Section 7, para 7.02. The last sentence indicates that acquisitions will progress over a period of years which creates an "open end" situation. According to para 1.01b, a review will be made and a report submitted to Congress. Suggest a statement stipulating a time period be included.
4. Section 8, para 8.01. The existing EIS does not adequately cover the specific action proposed. Therefore, an assessment and determination should be made as to whether an EIS supplement should be prepared or a FONSI is appropriate. Either way, no administrative action can be taken until the FONSI with assessment has been coordinated with agencies and the public for 30 days or an EIS supplement has been coordinated and filed.
5. Section 8, para 8.02c, line 13. The word "unleashed" implies lease on the lands proposed for compensation acquisition. Easements are to be taken, therefore, the word "unlease" should be deleted and words to the effect "outside the easement area" added to the sentence.
6. Section 8, para 8.02d, line 10. For clarity, suggest replacing the words "Fees paid" with "payment for the estate as acquired."
7. Section 10, para 10.02. Real estate costs (both lands and administrative) appear high, particularly Elements X and Z, which the State will acquire. Land acquisition and administrative costs must be closely monitored to assure reasonable values, based on the market, are paid and reasonable acquisition costs are incurred.
8. Section 10, para 10.07b. The Corps annual operation and maintenance cost for the 15,000 acre (Element Y lands) appears to be low. Not much fence or water development maintenance can be done for \$1000. Suggest you reevaluate the basis for this estimate.
9. Section 10. Real estate and development costs are given in 1975 prices, game bird replacement costs are given in 1975 prices and operation and maintenance are given in Oct 79 prices. All costs should be given in Oct 79 price levels.

LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN
DESIGN MEMORANDUM NO. 6
WILDLIFE COMPENSATION AND FISHING ACCESS SITE SELECTION

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LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN

DESIGN MEMORANDUMS

<u>No.</u>		<u>Cover Date</u>
1	Fish Facilities Site Selection Report	November 1977
	Letter Supplement No. 1, Changes to Idaho Steelhead and Oregon Hatchery Facilities	October 1978
	Letter Supplement No. 2, Changes to Satellite Facilities for Lyons Ferry Fish Hatchery	December 1978
	Letter Supplement No. 3, Changes to Idaho Steelhead Hatchery Facilities	April 1979
2	Real Estate Fish Facilities Report	November 1977
3	McCall, Idaho, Summer Chinook Hatchery System	March 1978
4	Lyons Ferry, Washington, Fish Hatchery	June 1979
5	Lookingglass Creek Hatchery, Oregon, Fish Hatchery	April 1979
6	Wildlife Compensation and Fishing Access Site Selection	November 1979

LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN

Design Memorandum No. 6

Wildlife Compensation and Fishing Access Site Selection

SECTION 1 - INTRODUCTION

1.01. PROJECT AUTHORIZATION.

a. The Lower Snake River Fish and Wildlife Compensation Plan was authorized for construction by the Water Resources Development Act of 1976, Public Law 94-587, 94th Congress. The applicable portions of the Act read as follows:

SECTION 102. "...The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted by the Secretary of the Army, acting through the Chief of Engineers, substantially in accordance with the plans and subject to the conditions recommended by the Chief of Engineers in the respective reports hereinafter designated...."

* * * *

"COLUMBIA RIVER BASIN

Fish and Wildlife Compensation Plan for the Lower Snake River, Washington and Idaho, substantially in accordance with a report on file with the Chief of Engineers, at an estimated cost of \$58,400,000."

b. The special report on the Lower Snake River Fish and Wildlife Compensation Plan was forwarded to the Secretary of the Army by letter dated 6 January 1977, subject: Special Report -- Lower Snake River Fish and Wildlife Compensation Plan, Lower Snake River, Washington and Idaho. In the forwarding letter it was stated that a report will be submitted to Congress not later than five years after receiving funds for the project, which will report on the success of land acquisition under the willing buyer-willing seller concept. The report is to recommend further measures, if necessary, to assure timely accomplishment of the authorized compensation plan.

c. The four Lower Snake River projects were previously authorized by Public Law 14, 79th Congress, 1st Session, approved 2 March 1945. The applicable portion of that Act reads as follows:

"...Snake River, Oregon, Washington, and Idaho: The construction of such dams as are necessary, and open-channel improvement for purposes of providing slack-water navigation and irrigation in accordance with the plan submitted in House Document 704, 75th Congress, with such modifications as do not change the requirement to provide slack-water navigation as the Secretary of War may find advisable after consultation with the Secretary of the Interior and such other agencies as may be concerned: Provided, that surplus electric energy generated at the dams authorized in this item shall be delivered to the Secretary of the Interior for disposition in accordance with existing laws relating to the disposition of power at Bonneville Dam; provided further, that nothing in this paragraph shall be construed as conferring the power of condemnation of transmission lines;...."

1.02. PROJECT DESCRIPTION.

a. The Lower Snake River Fish and Wildlife Compensation Plan was authorized to compensate for losses caused by the existing Lower Snake River Project which consists of Ice Harbor, Lower Monumental, Little Goose, and Lower Granite Dams. Each of the four dams is concrete gravity type with an earthfill embankment section. Each project has similar features, although physical arrangements are somewhat different. The dams consist of a gated spillway, powerhouse, navigation lock, fish ladders, and non-overflow section. Numerous parks and marinas are located along the 130 miles of reservoirs. The effective height of each of the dams is 100 feet, with the exception of Little Goose which is 90 feet. The four projects complete the link of slack-water navigation from the Pacific Ocean to Lewiston, Idaho.

b. The Lower Snake River Fish and Wildlife Compensation Plan authorizes acquisition of 400 acres in fee and 8,000 acres in easement to compensate for game bird and hunter-day loss (for ease of reference, each part of the wildlife plan has been labeled X, Y, or Z. This is Element X), and 15,000 acres in easements along the breaks of Snake River adjacent to project lands (Element Y) to compensate for lost riparian habitat for chukar partridges. It also authorizes providing funds to the Washington Department of Game to rear 20,000 game birds annually for a period of 20 years for stocking of project and acquired off-project lands. In addition, the project provides for acquiring 750 acres of land along the Snake River and tributaries of streams adjacent to the lower or middle Snake River (Element Z) to provide assured access for sport fishing. Project lands will also be developed for big game, upland game

birds, animals, and nongame wildlife. The fishery aspect of the Compensation Plan involves hatchery capacity to rear 9,160,000 fall chinook smolts weighing 101,800 pounds; 6,750,000 spring and summer chinook smolts weighing 450,000 pounds; 11,020,000 steelhead smolts weighing 1,377,500 pounds; and 93,000 pounds of rainbow trout or an equivalent for the resident sport fishery.

1.03. PURPOSE AND SCOPE.

a. This report is a post-authorization document and represents the implementation stage of the compensation plan. It is to identify the general location, estimated costs, and development aspects for land proposed for acquisition by fee or easement for wildlife compensation and fishing access in Washington. The general policies and constraints in siting and developing the hunting and fishing access, and the habitat are also discussed. As land acquisition is limited to the willing buyer-willing seller concept, it is not possible to proceed with a detailed site investigation until the land has been acquired.

b. This design memorandum addresses only the off-project wildlife compensation and the off-project fishing access aspects of the Lower Snake River Fish and Wildlife Compensation Plan for the State of Washington. This includes all off-project wildlife and fishing access land except for 50 acres of streambank fishing access for Idaho.

1.04. PRIOR REPORTS.

a. There have been several reports made by the Corps of Engineers and for the Corps of Engineers by other agencies. Those pertaining to wildlife compensation and/or fishing access are listed below:

(1) The U.S. Army Corps of Engineers published a special report entitled, "Lower Snake River Fish and Wildlife Compensation Plan" dated June 1975. This report was a coordinated effort between the Federal and State fish and wildlife agencies and was the basis for authorization of the Lower Snake River Fish and Wildlife Compensation Plan.

(2) A Draft Environmental Impact Statement on the Lower Snake River Fish and Wildlife Compensation Plan was completed in February 1975 and sent to the Council on Environmental Quality on 5 March 1975. This report was also provided to agencies and individuals for review. Based on the comments received, a revised Draft Environmental Impact Statement dated June 1975 was prepared and sent out for agency review. The revised draft was forwarded to the Council on Environmental Quality on 30 April 1976. The final Environmental Impact Statement dated September 1976 was transmitted to the Council on Environmental Quality on 28 October 1977.

(3) The U.S. Army Corps of Engineers also published the "Design Memorandum for Wildlife Habitat Development - Supplement No. 1 - Lower

Snake River Project," dated 22 December 1978. This Design Memorandum deals with on-project development of wildlife habitat and, therefore, is not of primary concern in this report.

(4) The Washington Department of Game has prepared a report for the Corps of Engineers under contract number DACW68-78-C-0040. This report, which was available for public workshops in May 1979, is entitled, "Off-Project Wildlife Compensation Criteria" for the Lower Snake River Fish and Wildlife Compensation Plan and is included as Appendix A. The primary purpose of the report was to formulate explicit guidelines which would become the basis for actual acquisition, development, and management of the compensation lands. This report is the basis for much of this Design Memorandum.

1.05. COORDINATION AND PUBLIC PARTICIPATION.

a. General.

(1) Various Government agencies and the general public have been involved throughout the development of the Lower Snake River Fish and Wildlife Compensation Plan. Early input from the public at large was obtained through many contacts with individuals in informal group meetings and by formal public hearings in 1973. Throughout the planning period and especially since project authorization, close coordination has been maintained with the Washington Department of Game. Initial contact was made with the Counties' planning personnel by the Washington Department of Game on 21 and 22 August 1978 (see pages 29-33 of Appendix A). The Washington Department of Game then proceeded with their work to develop criteria for land acquisition for this portion of the Lower Snake River Fish and Wildlife Compensation Plan under contract DACW68-78-C-0040. Close coordination was maintained throughout the completion of this contract. Reviews by the Department of Game, the U.S. Fish and Wildlife Service, and the Corps at the 25, 40, 80, and 100% points of the contract insured incorporation of all views into the criteria.

(2) The Columbia County Commissioners objected to the workshop format on the basis that the Government might mislead an individual in a one-on-one discussion and indicated their preference for the more traditional public meeting. To accomplish this arrangement, they referred the question of the acquisition of land for wildlife compensation to the County Planning Commission. The Planning Commission subsequently held a meeting which was open to the public where Corps and Washington Game representatives explained the compensation plan. The approximately 60 people present at the meeting were polled, and total opposition was expressed. In light of this fact, the Commission rejected the Compensation Plan as being in conflict with the County's Comprehensive Plan and Zoning Ordinance. A copy of the letter stating this is in Appendix B.

b. Public Workshops.

(1) General.

Public workshops were held in Asotin, Garfield, Walla Walla, and Whitman Counties. The purpose was to go where the affected people lived and present the program in an informal atmosphere to enhance open discussion. After a slide show, people were shown potential sites, and questions were answered by Washington Department of Game and Corps representatives. Participants were asked to complete a questionnaire (see Appendix C). Results of the questionnaire are shown on Table 1.

(2) Asotin County Workshop.

About 20 people attended the workshop in Asotin County, including some landowners, County Commissioners, and members of the Planning Commission. As no Element X land had been studied for Asotin County, there was little discussion on this aspect. One major landowner in the Element Y area studied stated, after listening thoughtfully to the presentation, that he would not sell a permanent easement. This area, however, may still be viable. There was support for the Element Z streambank easements from the County Planning Commission (see Appendix B) and from several other people at the workshop; however, no landowners of Element Z lands attended the workshop. The prime concern expressed at the workshop was the perpetuity of the acquisitions, and requests were made that it be changed.

(3) Garfield County Workshop.

Over 40 people attended the Garfield County workshop. Opposition by major landowners in the one Element X unit that was studied indicates that this unit cannot be considered. Several landowners of the Element Y lands studied were adamantly opposed to the plan; however, at least one landowner expressed support for the plan in spite of the perpetual easement. Several others were noncommittal, so there may be some possibilities remaining for Y lands. It also appears that the Element Z fishing access lands are yet viable. Again, the major objection was to the perpetual easements, and some expressed opposition to hunters in general.

(4) Walla Walla County Workshop.

Although some 150 brochures were sent out to Walla Walla County residents, including over 100 landowners, and newspaper and radio announcements were made, only four people participated in the workshop. Since all four were sportsmen who supported the plan, no first-hand information from the landowners' position was obtained. Without this information, no determination could be made on the availability of sites.

TABLE 1
RESULTS OF WORKSHOP QUESTIONNAIRES

		Asotin	Garfield	Walla Walla	Whitman	TOTAL
What is your general attitude regarding the Lower Snake River Wildlife Compensation Plan?	Support	2	2	3	0	7
	Neutral	2	8	*	5	15
	Oppose	1	15	*	37	53
Do you own any land which you think might fit into the Wildlife Compensation Program?	Yes	1	13	*	23	37
	No	4	7	3	15	29
	Not Sure	*	5	*	3	8
If YES, would you consider yourself a potential willing seller?	Yes	*	1	*	1	2
	No	*	13	*	30	43
	Not Sure	1	6	*	2	9
Would you like to be contacted after we have authority to purchase land?	Yes	1	4	1	9	15
	No	2	13	*	28	43
	Not Sure	*	4	*	2	6
How do you feel about your neighbors participating in this program?	Support	*	2	1	1	4
	Neutral	2	6	*	7	15
	Oppose	1	11	*	33	45
Would you participate in the fishing and hunting opportunities which would occur under this program?	Yes	2	5	2	2	11
	No	3	14	*	37	54

* No response

The Walla Walla County Commissioners, in an earlier meeting, voiced no opposition to the plan, so if willing sellers can be found, coordination with the local government should be no problem.

(5) Whitman County Workshop.

Over 50 people participated in the Whitman County workshop. The group was composed mostly of landowners and members of the County Planning Commission, most of whom opposed the Wildlife Compensation Plan. The most adamant opposition was to the perpetual easement. Other critical issues to many participants were hunter abuses and the idea of losing prime farm land to recreational development for such things as hunting. Many even questioned if any wildlife losses were caused by the dams. The workshop also initiated letters from the North and South Palouse Grange and the Palouse Conservation District voicing their opposition to the plan. In follow-up letters from the Planning Commission and County Commissioners, they summarized the negative response of the people and asked that they be included in further discussions of the Compensation Plan (see Appendix B).

(6) Summary.

Although the majority of the landowners attending the workshops were opposed to the acquisitions, several indicated they would be willing sellers or were not sure. This and the fact that no dollar values were placed upon the easements may be a positive influence to the success of the Wildlife Compensation Plan.

SECTION 2 - AREAL DESCRIPTION

2.01. TOPOGRAPHY.

The Lower Snake River region (see Plate 1) contains three distinct types of topography. The western and northwestern sections of the region are characterized by wide expanses of fairly flat land lying at 1,000 to 2,000 feet in elevation and cut only by shallow canyons along the drainage courses. Joining the flat lands to the east is a foothill area that extends in elevations from 2,000 to 3,000 feet. This area is characterized by wide valleys with higher, bordering timbered hills. The remainder of the region is mountainous, rugged, and generally covered by timber. Throughout much of its length in the region, the Snake River flows through a steep canyon which it has cut in the Snake River plain. This canyon is characterized by steep side slopes, which rise in places to heights 1,000 feet above the river bed.

2.02. CLIMATE.

The region has a considerable variation in climate and length of growing season, chiefly because of a wide range in elevation. Eastward-moving Pacific maritime air masses, though modified by intervening topographic barriers, have sufficient moisture content to produce considerable precipitation when lifted over the mountainous areas. Normal annual precipitation ranges from about 7½ inches near the mouth of the Snake River to more than 50 inches in the Blue Mountains located in southeastern Washington. Occasionally, cold continental air invades the area and produces brief periods of subzero temperatures at all elevations. The continental influence also results in periods of high temperature in the summer. Storms affecting the area are of several types. The most severe and frequent storms occur during the winter and originate over the Pacific Ocean. Summer thunderstorms in the foothills produce localized high intensity precipitation for short periods. High flows in the Lower Snake River generally result from snowmelt in the mountainous regions upstream.

2.03. GEOLOGY.

The Lower Snake River flows across the southern part of the Columbia Plateau, a region characterized by a thick succession of nearly flat lying basaltic rocks. The river has entrenched a canyon that is in places more than 2,000 feet below the general level of the plateau. In most places the canyon walls are precipitous and have a series of narrow, talus-covered slopes separated by nearly vertical basalt faces. Tributary canyons are generally short and steep. Bedrock geology within the Lower Snake River Canyon consists of basaltic lava flows and associated sedimentary interbeds of Miocene age (8-16 million years ago).

The basalt flows, which range in thickness from a few feet to several hundred feet, are part of the Yakima Basalt which, in turn, is part of the Columbia River Basalt Group. The Yakima Basalt is further subdivided into smaller units, but in most cases these units can be distinguished only by means of chemical analysis. The sedimentary interbeds, which are thin and of limited lateral extent, consist mainly of sand and finer-sized particles derived from volcanic rocks. Deformation of the basalts and associated interbeds is restricted to very gentle tilting (10° - 20°) to the west and northwest and some minor folding and faulting. In some cases, younger lava flows filled canyons of the ancestral Snake River and formed small discordant bodies known as intra-canyon basalts. At only one place, Granite Point, near Lower Granite Dam has the river eroded through the basalt assemblage into the older igneous and metamorphic rocks. Covering the canyon rim and plateau surface is a mantle of windblown silts ranging in thickness from a few feet to more than 200 feet. These silts have been sculptured by the wind into a distinctive landform known as Palouse topography. The topography was further altered by several catastrophic floods near the end of the last glacial epoch (15,000 - 20,000 years ago). In places these floods stripped away the soils and carved a network of channels into the plateau surface north of the Snake River. The resulting barren lands are generally known as scablands. At points where the floodwaters debouched into the Snake River and at other low-water velocity points, large gravel and sand deposits were formed. Although parts of these deposits and the more recent flood plain deposits are now covered by the various reservoirs of the Lower Snake River, remnants of gravel bars and terraces are still found along the sides of the canyon. In more recent times a dry, windy climate has resulted in the widespread deposition of more windblown silt and sand.

2.04. FISH AND WILDLIFE RESOURCES.

a. Wildlife.

The Lower Snake River Canyon and the surrounding area support a diverse selection of wildlife. Streamside vegetation and brushy draws supply food and cover for game such as white-tailed and mule deer, California quail, ring-necked pheasant, chukar partridge, gray or Hungarian partridge, and cottontail rabbits. Migratory game birds inhabiting the area, both seasonally and as residents, include mourning doves, ducks, and geese. Beaver, muskrat, and mink are the main fur-bearing species having economic importance; however, raccoons, skunks, weasels, bobcats, river otter, badgers, and coyotes are also found along the river. A variety of birds and other nongame wildlife are found in the area too. Pre-project wildlife populations, as indicated in Lower Snake River Compensation Plan Special Report, are shown on Table 2. The Special Report indicates, as shown on Table 3, that due to project-caused losses of riparian habitat, agricultural bottom lands and nesting areas,

approximately 85,000 wildlife user-days were lost. Estimated losses for upland game, chukar, doves, and deer are shown on Table 4.

b. Fishing Resources.

(1) Prior to project construction, a high quality stream fishery existed for both resident and anadromous species on the Lower Snake.

(2) The resident fishery included bass, sturgeon, channel catfish, rainbow and brown trout, Dolly Varden, bullheads, whitefish, crappie, and bluegills. The impoundments have adversely affected this fishery and fluctuating water levels have reduced the spawning and rearing success of bass and other warm-water species. Although a warm-water fishery will continue, it has been estimated that a reduction from 250,000 stream fishing angler-days without the project, to 205,000 reservoir angler-days (restricted primarily to warm-water species) will occur. This indicates a loss of 45,000 reservoir angler-days or 67,500 stream angler-days.

(3) An anadromous sport fishery was developing prior to project construction primarily for steelhead trout. The catch per unit of effort for these fish is extremely low in a reservoir when compared to a stream. Although a stream type fishery will exist in the tailrace area near each dam, an average annual loss of 130,000 angler-days is expected due to the loss of streambank area.

TABLE 2
Wildlife Populations in Project
Area Pre-Project Conditions 1/

Species	Base No. Before Inundation
GAME	
Deer	1,800
Pheasant	22,000
Quail	56,900
Huns	19,800
Chukar	52,100
Doves	120,200
Cottontail	8,400
WATERFOWL <u>2/</u>	
Ducks	17,500
Geese	2,200
FUR ANIMALS	
Beaver	1,100
Muskrat	26,900
Mink	2,300
Otter	200
Raccoon	2,600

1/ Determined from special survey of 1964-65-66 harvest in project areas, numbers rounded.

2/ Reflects hunting season population only - does not indicate production changes.

TABLE 3

Average Annual Wildlife User-Days,
Lower Snake River Project, Washington State

Group	Without Project (Man-Days)	With Project (Man-Days)	Difference
Hunting Use <u>1/</u> (Big game, upland game, waterfowl)	57,600	18,200	-39,400
Appreciative Use <u>2/</u> (Game and non- game species)	63,600	20,100	-43,500
Fur Animals	4,200 (pelts)	2,100 (pelts)	- 2,100 (pelts)

1/ From BSW-NMFS Report - Appendix A of the Special Report.

2/ From Washington Department of Game, 1974 Use figure. Appreciative use increasing at average rate of 4.14 man-days per year in proportion to hunting use in State of Washington.

TABLE 4

Wildlife Population Estimates -
Lower Snake River Project
(From the Special Report)

	Upland Game	Chukar	Doves	Deer	Total
Pre-Project <u>1/</u>	107,100	52,100	120,200	1,800	281,200
Post-Project <u>1/</u>	40,300	12,500	105,800	600	159,200
Recoverable <u>2/</u>	<u>13,600</u>	<u>11,700</u>	<u>2,900</u>	<u>700</u>	<u>28,900</u>
TOTAL (Post-Project and recover- able) <u>3/</u>	53,900	24,200	108,700	1,300	188,100

1/ Data supplied by Washington Department of Game.

2/ Estimated increase from wildlife habitat development on project lands.

3/ Estimated total wildlife populations after development of habitat on project lands.

SECTION 3 - COMPENSATION REQUIREMENTS

3.01. JUSTIFICATION.

With the completion of Ice Harbor, Lower Monumental, Little Goose, and Lower Granite Dams on the Lower Snake River, 33,890 acres of reservoir have been established. That acreage includes 14,400 inundated acres of bottom land and steep hillside grasslands with basalt outcroppings. The resulting loss of riparian habitat, the wildlife dependent upon it, and the streambank type of fishing access were discussed in detail in the Lower Snake River Fish and Wildlife Compensation Plan Special Report.

3.02. COMPENSATION ELEMENTS.

a. Element X.

The Lower Snake River Fish and Wildlife Compensation Special Report states that this portion of the plan will consist of the "Acquisition of approximately 400 acres of riparian habitat in fee and 8,000 acres of farmland in easement surrounding these riparian lands to provide partial compensation for project-caused pheasant and quail hunting losses and additional hunting opportunity as a substitute compensation for nongame species. Acquisition of the land would be by agreement between Corps of Engineers and the Washington State Department of Game whereby the Game Department would undertake the actual acquisition on a willing seller concept. Under this agreement, title to the fee lands would be vested with the State for such period of time that the land is used for fish and wildlife management purposes. At the end of such time title to any portion not being used for this purpose would be conveyed to the United States Government without additional compensation. The Corps will require that selection of hunter easements and wildlife habitat core areas be accomplished in a manner to provide viable wildlife management units, that all involved landowners in a given management unit are in agreement (willing sellers), that each management unit be concurred in by the involved County Planning Commission, and that the payment consideration be fair and reasonable. Costs for acquisition and initial development of these lands by the State would be reimbursed by the Corps of Engineers. Annual operation and maintenance costs would be a State responsibility." Only lands in the Counties of Asotin, Columbia, Garfield, Walla Walla, Whitman, and portions of Adams and Franklin will be considered for this element (see Plate 1 and Page 5 of Appendix A).

b. Element Y.

The Special Report states that this portion of the plan will consist of the "Acquisition of approximately 15,000 acres of land in easement to provide hunter access as partial compensation for project-caused losses to chukar-partridges. Acquire approximately 50

small select parcels of land (0.1 acre each) in easement or fee and construct bird-watering devices on these lands. The land would be located in the draws along the sides of the Snake River Canyon adjacent to the project area and would provide access to project lands from surrounding private lands (see Plate 1). Access to these lands would be acquired by the Corps of Engineers on a willing seller concept and would be managed by the Corps of Engineers in conjunction with adjacent project lands. Land access acquired by easement would be limited to the hunting seasons and would not be fenced so that normal range land activities could be continued by the owners. Lands around the bird-watering devices would be fenced.

c. Element Z.

In this portion of the plan, the Special Report provides for the "Acquisition of 750 acres of land along the Snake River and tributaries of streams adjacent to the lower or middle Snake River in easement or fee to partially replace loss of stream-type steelhead and salmon sport fishery in the 150 river miles of the project area. Acquisition and development would be accomplished under an agreement between the Corps of Engineers and the States of Washington and Idaho with ownership vested in the States." This Design Memorandum will deal with only the 700 acres of land to be acquired within the State of Washington. The State of Washington would acquire the land on a willing seller concept and be responsible for the initial development with costs to be reimbursed by the Corps. Operation, maintenance, and any future development would be the responsibility of the State. Plate 1 shows the areas studied as a first priority; Plate 2 shows areas along the Yakima River studied after the workshops as a second priority. This was done because workshop input indicated that the total 700 acres could not be acquired in the first priority area. Plate 3 shows the areas of first, second, and third priorities.

d. Game Bird Replacement.

The Lower Snake River Fish and Wildlife Compensation Plan states that the Corps of Engineers will pay the Washington Department of Game to provide game birds to stock on-project and off-project land for compensation of lost hunter-day use and animals. Stocking is estimated at 20,000 birds per year for a 20-year period. By then, habitat should be established for a natural brood stock. This was to be done by an agreement which "would provide for a lump-sum payment of \$1,159,000, estimated capitalized value of the 20-year stocking period, to the Washington Department of Game to provide the birds either by outright purchase, remodeling an existing bird farm, or constructing a new facility." However, the Washington Department of Game has recently decided to reconsider the game bird planting concept and look at other options for meeting the compensation requirements. (See Page 10 of Appendix B.)

SECTION 4 - SITE SELECTION CRITERIA

4.01. GENERAL.

a. Site selection criteria were developed to serve as guidelines for a number of reasons:

(1) To insure an open, interagency, interdisciplinary approach for land acquisition.

(2) To provide a vehicle for public participation.

(3) To insure only viable units, not just any land available, are selected.

(4) To make the wildlife lands compatible with existing land use patterns and the area's agricultural base.

b. The willing buyer-willing seller concept was also a primary consideration in setting up the criteria, and its success will determine the ultimate success of the wildlife compensation and fisherman access portion of the Lower Snake River Fish and Wildlife Compensation Plan.

4.02. ELEMENT X SITE SELECTION CRITERIA & MANAGEMENT UNIT REQUIREMENTS.

a. Criteria for Fee Lands. Primary considerations for criteria for selecting 400 acres of fee lands are to obtain streamside, tributary, or related lands as a core habitat for increasing numbers and kinds of animals in the nearby watershed. The Compensation Plan states that "lands purchased in fee shall consist of, or contain potential for, vegetation with value for food, cover, and nesting."

(1) Minimum width on the ground shall be 75 feet on each side of the stream; maximum width on the ground shall be 400 feet on each of perennial streams and water courses.

(2) Minimum length shall equal minimum width.

(3) Steep, untilled portions of knolls or sidehills ("eyebrows") vary in size depending on topography and farming operations. They are valuable to wildlife because of native or introduced vegetation they contain. Quality of habitat rather than size of sites will determine whether they will be acquired.

(4) In general, fee lands shall comprise the nucleus of a management unit and be surrounded by easement lands.

b. Criteria for Easement Lands. 8,000 acres of easement lands will abut or surround fee lands and allow hunting for wildlife produced and sheltered on fee lands.

(1) Average ratio of "fee" to "hunter easement" lands shall be 1:20.

(2) Easements shall be purchased in perpetuity and allow access only during the hunting season.

(3) Easements shall stipulate that lands acquired shall remain in agricultural use. "Agricultural use" shall be defined in the easement agreement.

(4) The terms of the easement shall allow planting of game birds on easement lands.

c. Management Units. A management unit is the combination of fee and easement lands capable of providing food, cover, and nesting areas for wildlife and recreation use of that wildlife.

(1) "Fee" to "hunting easement" ratio shall average 1:20.

(2) Two types of units will be recognized: Natural production and artificial stocking.

(3) Natural production units shall normally not be smaller than 100 acres (fee plus easement). Smaller size units will be evaluated on a case-by-case basis.

(4) Artificial stocking units shall not be smaller than 360 acres (fee plus easement) and should be comprised of habitat containing holding cover; these lands should allow maximum harvest of stocked birds while minimizing degradation of wildlife populations.

(5) Wherever practical, management units shall be comprised of lands with easily recognizable physical boundaries.

(6) Each management unit plan will be concurred in by the involved county planning commission.

(7) All landowners in a given management unit will be willing sellers.

(8) Game birds provided by Snake River Compensation Plan funding will be released to improve hunting on artificial stocking units.

4.03. ELEMENT Y SITE SELECTION CRITERIA.

Selection of the 15,000 acres in easements primarily for chukar partridge hunting shall meet the criteria listed below:

a. Lands should facilitate management and hunting use of a "top-to-bottom" section of Snake River Canyon.

b. Sites shall have existing or potential upland wildlife habitat values.

c. Lands shall be in the Snake River Canyon of Washington State.

d. Lands shall contain or have development potential for upland wildlife habitat (particularly chukar partridge).

e. Land parcels must extend vertically from top of ridge to Corps of Engineers project lands along a river wherever possible.

f. Land parcels shall extend horizontally, wherever possible, to include a watershed or canyon, rim to rim, emptying into the river.

g. Where a boundary fence exists and crosses a watershed vertically, the easement can be acquired if other wildlife and access requirements are met.

h. Public access to the lands from a public road or road easement should be available, preferably at top and bottom, creating walk-through hunting opportunities.

i. No tilled lands shall be included in parcels. However, private road easements across tilled lands can be acquired to facilitate use of parcels.

j. Parcels shall contain no roads unless that road is a public road or private road open to the public.

k. Preference shall be given to parcels where habitat development will be allowed.

l. Easements will be acquired in perpetuity and allow access during the hunting season.

m. Each planned acquisition will be coordinated with the applicable local governing authorities.

n. All landowners in a given management unit will be willing sellers.

o. Some Element Y sites will be selected to receive game farm-reared birds provided by Snake River Compensation. These will be released on sites where permitted by easement conditions.

4.04. ELEMENT Z SITE SELECTION CRITERIA.

The 700 acres to be acquired for fishing access will be obtained under the following criteria:

a. Acquisition of streamside access can be accomplished by fee or easement as necessary to meet criteria.

b. Sites will be selected contiguous with water courses recognized as having sport fishing value.

c. Preference shall be given streams with anadromous and/or white-fish populations.

d. Minimum width shall be 25 feet per stream side; maximum width shall be generally determined by configuration of the riparian vegetation. The stream bottom shall be acquired where the stream is wadable. Both sides shall be purchased if the stream is easily wadable.

e. Tilled land will not be acquired except when required to maintain access continuity along streams.

f. Streamside easement acquisitions are not fixed, but will "float" with the periodic movement and location of the water course (see Annex E of Appendix A). Lands purchased in fee will, of necessity, have a fixed boundary and will only be acquired where this feature will not become a problem.

g. Streams shall be selected for acquisition according to the following priority (see Plate 3):

(1) Tributary to Snake River in Whitman, Walla Walla, Garfield, Columbia, and Asotin Counties.

(2) Streams in Yakima, Franklin, Benton, Adams, Spokane, and Pend Oreille Counties.

(3) Streams in the remainder of eastern Washington.

h. Acquisition shall abut water courses with hydraulic and streamside characteristics conducive to production and fishability, as described in Annex F of the Washington Department of Game report (see Appendix A).

i. Tilled or agricultural land may be acquired where connecting paths are needed to gain access from roads open to the public.

j. Connecting paths from road to stream shall not exceed ten feet in width.

k. Where streamside access acquisition exceeds two contiguous miles, a second connecting path should be provided.

l. Connecting paths should be located where streamside is nearest a road open to the public.

m. Parking or pull-out areas should be located near connecting paths.

n. Fish from new hatcheries constructed by the Snake River Compensation Plan will be planted to improve the catch along these lands.

o. All landowners in a given management unit will be willing sellers.

p. All planned acquisitions will be coordinated with the applicable local governing authorities.

Indications at this point are that there will not be enough Element Z lands available in the first-priority counties mentioned in paragraph g above. Therefore, areas along the Yakima River are being considered to satisfy the requirements for Element Z lands (see Plate 2). First-priority area possibilities will be exhausted before considering the Yakima River.

4.05. TYPICAL SITES.

Plates 1 and 2 show examples of actual sites which would meet the criteria given for Elements X, Y, and Z. These sites were chosen for the purposes of estimating real estate values and development costs. They may be used as final sites only if the willing buyer-willing seller criteria is met, the local government agrees to the acquisition, and the other criteria are met.

4.06. FINAL SITE SELECTION.

Prior to actual selection, a team composed of Game Department and Corps personnel (representing administration, management, real estate, and biological expertise) will field examine recommended compensation sites. The purpose of this inspection will be to determine if each alternative site recommended for Elements X, Y, and Z meets mitigation criteria. The degree of compliance with criteria will guide acquisition efforts. A negative response from a prospective seller will eliminate further consideration of his land. The standards which will decide the priority or ranking of individual element sites follow:

- a. Does the site meet selection criteria?
- b. Will the site meet public user needs?
- c. Is acquisition of the site feasible at appraised fair market value?
- d. Will a large number of landowners be affected?
- e. Is the site easily accessible to the public?
- f. Does the site have well-defined boundaries?
- g. Does the site meet local government planning guidelines?
- h. Can private property in or near sites be adequately protected?
- i. Are topographic features favorable for attaining compensation goals?

SECTION 5 - SITE DEVELOPMENT & LANDOWNER PROTECTION

5.01. GENERAL.

Final site plans cannot be made in detail for site development and landowner protection and utilization until the individual sites are selected. Generalized plans, however, are shown on Pages 37, 40, and 43 of Appendix A. After actual units have been purchased, the final designs will be submitted as supplements to this DM. The Corps will review all designs for development, and construction will comply with the requirements normally imposed by the Corps.

5.02. HABITAT AND FISHING SITE DEVELOPMENT AND PROTECTION.

a. Fencing.

Fencing shall be constructed on Element X fee lands where required to protect streamside areas and other sites. Fencing may also be used to protect natural or artificial water sources and adjacent vegetation on Element Y lands. Element Z lands shall be fenced as necessary to prevent livestock grazing and/or protect riparian vegetation.

b. Water Development.

Springs, seeps, and other natural water sources will be developed on fee land and, where agreed, on easements on both X and Y lands. Cisterns, windmills, etc. will also be used on Y lands to develop artificial sources of water. Combination cattle and wildlife watering areas shall be constructed where necessary.

c. Artificial and Vegetation Improvements.

Artificial devices such as roots, brush piles, and feeders shall be constructed to encourage wildlife development on fee lands and, where agreed, on easements in the hunting areas (Elements X and Y). Woody vegetation and perennial grasses will be planted on Element X fee lands as needed. Perennial grasses will also be planted on Element X easements as needed and where the landowner agrees.

5.03. ACCESS.

a. Parking.

Parking or pullouts shall be provided as needed in all areas. Off-road controls (fences, cables, ditches, moats, railroad bars, etc.) shall be provided where needed to control vehicle access. No overnight parking shall be allowed.

b. Public Controls and Access.

Reader boards will be installed at all developed parking areas to provide information on the use of the sites, such as maps, rules, and regulations. Signs shall be used to identify entrances and exit routes, boundaries, etc. All sites shall be identified as being part of the Compensation Plan. Stiles, footbridges, or other means of access shall be constructed where necessary. Management gates shall be locked. On Element Z sites, boat launches and shoreline trails shall be constructed as needed.

c. Sanitation Facilities.

Sanitation facilities will be provided in some areas and, where necessary, they will meet the needs of the handicapped. Annex B of Appendix A gives information on these facilities.

5.04. LANDOWNER PROTECTION.

a. Safety zones will be identified in hunting areas to protect buildings, livestock, etc. (see Annex C of Appendix A).

b. Equipment and/or livestock watering corridors will be provided where required.

c. Weed control measures will be provided on fee lands to comply with the existing laws and regulations of the area.

d. Every effort will be made to comply with Federal, State, County, and local laws and regulations concerning fire protection, crop damage, and liability.

e. Liability considerations for participating landowners are covered by Washington State Statute RCW 4.24.200 and 4.24.210 below:

4.24.200 Liability of agricultural or forest landowners for injuries to recreation users -- Purpose. The purpose of RCW 4.24.200 and 4.24.210 is to encourage owners of land to make available land and water areas to the public for recreational purposes by limiting their liability toward persons entering thereon and toward persons who may be injured or otherwise damaged by the acts or omissions of persons entering therein.

4.24.210 -- Limitation. Any landowner who allows members of the public to use his agricultural or forest land for the purposes of outdoor recreation, which term includes hunting, fishing, camping, picnicking, hiking, pleasure

driving, nature study, winter sports, viewing or enjoying historical, archaeological, scenic, or scientific sites, without charging a fee of any kind therefor, shall not be liable for unintentional injuries to such users: Provided that nothing in this section shall prevent the liability of such a landowner for injuries sustained to users by reason of a known dangerous artificial latent condition for which warning signs have not been conspicuously posted: Provided further, that nothing in RCW 4.24.200 and 4.24.210 limits or expands in any way the doctrine of attractive nuisance.

f. Public use of easement lands for hunting (Elements X and Y) will be restricted to hunting seasons, normally 1 September to 15 January, unless otherwise agreed.

g. All areas will be actively patrolled to enforce the controls and regulations.

SECTION 6 - OPERATION AND MAINTENANCE

6.01. GENERAL.

The Washington Department of Game will be responsible for the Operation and Maintenance of Element X and Z sites and the Corps will be responsible for Element Y sites. This will include the following:

a. Maintain and repair all fences constructed as part of initial development, except where excluded by landowner agreement.

b. Maintain and replace signs, stiles, gates, reader boards, etc., constructed as part of initial development.

c. Maintain and repair parking areas constructed as part of initial development.

d. Maintain and repair sanitary facilities constructed as part of initial development.

e. Make necessary changes to access plans and facilities to increase the usability of the sites and prevent vandalism.

f. Patrol to enforce entry restrictions, safety zoning, restricted access of easements during off seasons, and other controls and regulations.

g. Comply with all Federal, State, County, and local laws and regulations concerning weed control, fire protection, crop damage, and liability.

h. Maintain wildlife and/or livestock water developments on fee lands. Maintain water developments as stipulated in the easement agreements; this will normally be the responsibility of the principal user.

i. Maintain an "ecological balance" between food, cover, and water for maximum numbers and kinds of wildlife (see Annex D of Appendix A).

j. Revegetate where needed.

k. Maintain and repair artificial devices as needed.

l. Release game farm reared birds where criteria permit if the program is reestablished.

SECTION 7 - MONITORING

7.01. GENERAL.

An important part of the Compensation Program is to determine if the prescribed compensation goals are being met. In addition, Lower Snake River Fish and Wildlife Compensation Plan requires that "title to fee lands would be vested with the State for such period of time that the land is used for fish and wildlife management purposes." In order to ascertain the above, some procedure to determine success of development and management on acquired lands must be implemented. This is the responsibility of the Corps of Engineers. There are three basic items that will be monitored. They are (1) the numbers and kinds of game (nongame species will not be monitored); (2) the hunter use; and (3) the effectiveness of the development and management.

7.02. INITIAL MONITORING.

Predevelopment data on numbers and kinds of game will be acquired for Elements X and Y. This will include crowing and calling counts, composition and production counts, nest searches, and brood counts if determined necessary. Techniques used will be similar to those used for on-project wildlife lands monitoring. Photographs will also be taken of all elements for a pictorial history of development. Predevelopment hunting and fishing should be monitored when possible. The acquisitions will progress over a period of no more than ten years from initial appropriation of funds. This means that the initial monitoring may be spread over the same period of years.

7.03. POST DEVELOPMENT MONITORING.

It is anticipated that post development monitoring will be done the first year after development and approximately every five years thereafter. This may change somewhat to merge the on and off project monitoring, to reduce manpower requirements, or to suit revised monitoring requirements. The techniques used for the initial monitoring will be used to gather data for post development. Hunter use and bag data will be gathered from that which is normally taken by the Department of Game and, therefore, will not require additional Federal funding. The Corps will fund data gathering for fisherman use and success on Element Z lands. No "in-stream" fish counts will be made.

7.04. REVIEW.

Corps personnel will review the reports made from the data generated. The effectiveness of the development and management will be measured and evaluated, and any recommendations for change will be studied.

SECTION 8 - ENVIRONMENTAL ANALYSIS

8.01. GENERAL.

a. An Environmental Impact Statement has been filed for the Compensation Plan. If the acquisition or development of land causes a significant deviation from the Environmental Impact Statement, an environmental assessment will be made, otherwise no formal action will be taken.

b. The proposed acquisition and development should not result in any significant physical impacts. Biological impacts will mainly result from habitat improvements which will favor some wildlife species numbers and movements. Existing wildlife will have new populations superimposed on their numbers. Increased human activities will stress wildlife and its habitat to some extent.

8.02. SOCIAL IMPACTS.

a. General.

Implementation of the proposed plan should inflict no significant adverse social or economic impact upon property owners involved. Real estate acquisition in fee or by long-term lease will be on the basis of a willing buyer-willing seller and no forced relocation through condemnation is authorized. The plan should not impact employment or incomes of farmers through reduction of agricultural output.

b. Element X Social Impacts.

The plan is for three categories of compensation. About 8,400 acres relate to pheasants and pheasant hunting. Some 8,000 acres of producing farmlands would be leased for hunter access with agricultural operation of the leased lands continuing as it is presently practiced. The remaining 400 acres are along waterways and would be acquired in fee and developed for pheasant habitat. Much of the latter acreage would be considered marginal due to difficulty in farming, periodic flooding, and bank erosion during runoff periods. (Until the advent of more versatile equipment and high farmland prices, some of this land was left in natural vegetation.) Where access to water is necessary for livestock, it will be provided. The most significant impact from this segment of compensation will be the psychological effect upon farm operators. Many have exercised the right to control access to their property and characteristically view hunters from heavily urbanized areas with some distrust. Part of this is due to past abuses to their own property or that of their neighbors and a fear of repetition. Although they would be compensated for the economic consequence of general access by the public, some would not feel completely comfortable with the arrangement.

c. Element Y Social Impacts.

Another 15,000 acres adjacent to Federally-owned project lands around reservoirs would be leased for access by chukar hunters. These lands are too steep for cultivation and are used for livestock grazing or holding pastures. Most of the grazing occurs in early spring when grasses are green, and then the stock is moved to mountain summer ranges. This livestock is brought back again in late fall and carried through the winter with supplemental feed until beginning the cycle again in the following year. Hunter access would be allowed only during the fall hunting months. A very small area would be lost to grazing due to fencing off of man-made guzzlers (drinking areas) for benefit of the chukar population. The only identifiable negative impact would be in the delay of moving livestock onto the range for winter or extra movement of livestock from adjacent, lands outside the easement area under the same management. These impacts would be compensated for in the acquisition agreement. As with the pheasant hunting component of the plan, there would be some latent psychological impacts due to loss of control as to who uses their lands.

d. Element Z Social Impacts.

About 700 acres would be acquired for fishing access along flowing streams, either in fee or by lease. The plan would provide a corridor about 25 feet wide along the streams and roadside parking areas. Access by livestock to the water would be provided, if desired by the landowner. Lands that would be utilized for this purpose are primarily low grade pasture or what would usually be considered wasteland. Some of these lands are used to pasture resident farm livestock (horses and dairy cows) and occasionally for seasonal usage by commercial beef animals. The productivity of this land for agricultural purposes is negligible and should be considered as fully compensated for by payment for the estate as acquired. In general, access by fishermen has not been viewed by landowners with as much concern as is the case with hunters. Concern in the case of hunters is due to the frequent presence of livestock or location of farm buildings and the potential consequences of carelessness.

e. Land Revenues.

There will be little or no loss in revenues by local or regional taxing authorities that could impact socially oriented programs. Most of the lands involved would be acquired by easement and continued on the tax rolls as before. Counties now have the option of sharing in fines for game law violations or having the Washington State Department of Game pay normal taxes; however, the tax option is only available where fee lands exceed 100 acres. It is anticipated that fee lands within most management units will be less than 100 acres.

f. Summary.

(1) Most of the beneficial social impacts will accrue to others not associated with ownership and/or operation of the lands involved. Hunting and fishing have historically been an important aspect of outdoor recreation in the region and are equivalent to a tradition in many households. Construction of the four lower Snake River dams and reservoirs resulted in significant adverse impacts upon wildlife habitat, wildlife production and recreational hunting. The fishermen who prefer free-flowing streams were adversely impacted by the reservoir construction. As these recreationists shifted their activities to the remaining open areas, congestion increased and quality of their experience diminished. This increased intensity of usage caused some landowners to become apprehensive about the use of their lands by so many people and they either closed their lands or greatly restricted entry.

(2) Implementation of this plan will restore some of the previous quality to the region's hunting and fishing heritage by increasing wildlife and redistributing hunters and fishermen. This will take some of the pressure off private lands and tend to relieve part of the social stress being experienced by recreationists and landowners.

8.03. ARCHAEOLOGY.

A cultural chronology spanning the last 10,000 years is being continually documented in the area of the Lower Snake River and the inventory of cultural resource sites will be updated with discovery of new sites. Sites considered potentially significant will require testing and evaluation in compliance with criteria for nomination to the National Register of Historic Places. Sites endangered by erosion, vandalism, or construction activities which are significant will be considered for protection, sampling, or salvage. Expeditious measures, involving burial relocation action, will be taken whenever human remains are found to be endangered. The lands will be periodically monitored in regard to cultural resources.

SECTION 9 - REAL ESTATE

9.01. GENERAL.

The project real estate requirements have been categorized into the three elements previously discussed. Several of the sites studied for the cost estimates used in this section were eliminated from consideration during the public workshops because the landowners said they did not want to participate. Element X, 8,400 acres for upland game bird hunting, consists of 400 acres to be acquired in fee and 8,000 acres in easements. The sites studied were located along the Walla Walla and Touchet Rivers in Walla Walla County; Union Flat Creek and the Palouse River in Whitman County; the Tucannon River in Columbia County; and in the Tatman Mountain-Linville Gulch area of Garfield County. Element Y consists of 15,000 acres over which perpetual easements will be acquired for wildlife production, primarily chukar partridge, and to allow public access for hunting purposes. The land studied was located in Whitman, Garfield, Columbia, and Asotin Counties in the steep canyon areas overlooking the Snake River and also in adjacent watersheds that drain into the Snake. Element Z involves 700 acres of riparian lands to be acquired in easement or fee for public fishing access along streams and rivers in the Lower Snake River drainage. The lands studied originally were located along Asotin and Alpowa Creeks and the Grande Ronde River in Asotin County; Mill Creek and the Walla Walla and Touchet Rivers in Walla Walla County; the Tucannon and Touchet Rivers in Columbia County. Since the workshops, lands along the Yakima River in Benton and Yakima Counties have been studied in the second-priority area. This area will be considered only after it is known that there is not sufficient land available in the first-priority area.

9.02. EXISTING LAND USE.

The major use of the land studied in this project is agricultural. This involves rangeland, irrigated and dry cropland with such crops as wheat, alfalfa hay and seed, barley, corn, asparagus, and sugar beets. A small amount of land in such areas as the Grande Ronde River and Mill Creek has a recreational potential. Most of the land in Element Y is rangeland with some possible exceptions involving access roads across dry cropland.

9.03. REAL ESTATE ACQUISITION.

All lands in Elements X, Y and Z are to be identified and selected by the Washington State Department of Game with concurrence from the Corps of Engineers. The land rights in Elements X and Z are to be acquired by the Game Department under agreement with the Corps of

Engineers, which will reimburse the State for land and administrative expenditures. The 15,000 acres of easement rights in Element Y will be acquired by the Corps of Engineers after selection by the Game Department.

9.04. WILLING SELLER - WILLING BUYER CONSIDERATION.

The project requirements include the concept that land purchases be made from willing sellers only. This complicates the acquisition procedure in that it restricts the amount of land available and limits the possibility of acquiring viable management units involving several contiguous landowners. In the event all parcels in a designated management unit cannot be acquired, the smaller unit, if still viable, may be accepted. All acquisitions will be coordinated with local planning commissions so as not to be in violation of zoning and planning regulations. Payment for the lands and rights acquired will be based on appraisals prepared in accordance with recognized professional standards and criteria contained in the Interagency Land Acquisition Conference publication: "Uniform Appraisal Standards for Federal Land Acquisition," where applicable, and appropriate sections of the Uniform Relocation Assistance and Land Policies Act of 1970, Public Law 91-646.

SECTION 10 - COMPENSATION COSTS

10.01. GENERAL.

The cost of initial construction will be divided equally between the four Lower Snake River dams. Allocation within each has been proposed as follows:

	<u>Power</u>	<u>Navigation</u>
Ice Harbor	78.6%	21.4%
Lower Monumental	85.5%	14.5%
Little Goose	74.0%	26.0%
Lower Granite	97.0%	3.0%

Operation and maintenance will be the responsibility of the Corps only for the Element Y lands; Washington Department of Game will be responsible for X and Z lands. Monitoring costs required beyond normal Washington Department of Game monitoring will be funded entirely by the Corps.

10.02. REAL ESTATE COSTS.

In 1978 the Washington Department of Game, under contract with the Corps, completed studies including the selection, identification, and estimated costs of lands which would meet the criteria set forth for each element. The estimated real estate costs included here are based on values from the Department of Game with some modifications and updating to October 1979 levels. It is anticipated that landowner reluctance to sell will cause substantial administrative costs. Appraisal and evaluation of a large number of tracts will have to be made to find management units that will meet the criteria set forth.

Acquisition by State

<u>Lands:</u> Element X	\$ 6,434,000
Element Z	<u>2,315,000</u>
Total	\$ 8,749,000

<u>Administrative Costs:</u>	<u>Element X</u>	<u>Element Z</u>	<u>Total</u>
Contract Appraisals	\$157,000		\$ 157,000
Staff Salaries, Benefits, and OH	48,070	\$443,455	491,500
Travel	3,045	68,220	71,500
Title & Sundry Expenses	17,875	66,125	84,000
Survey Costs			<u>219,000</u>
		TOTAL	\$1,023,000
		Total State Acquisition Cost	\$9,772,000

Acquisition by Corps

<u>Lands:</u> Element Y	\$ 1,700,000
<u>Administrative Costs:</u>	
Element Y	160,000
Element X and Z review and approval	<u>132,000</u>
Total Corps Acquisition Cost	\$ 1,992,000
TOTAL PROJECT REAL ESTATE COST:	\$11,764,000

10.03. DEVELOPMENT COSTS.

Development costs were estimated by the Washington Department of Game at 1978 levels (see Appendix A). The total development cost allowing for escalation to October 1979 for the X element lands will be \$159,500; Y element \$17,500; and Z element \$23,000.

10.04. OPERATION AND MAINTENANCE COSTS.

These costs were also based on the estimate at 1978 levels by the Washington Department of Game (see Appendix A). These costs are estimated at October 1979 levels to be \$48,600 for X element lands; \$4,000 for Y element lands; and \$36,000 for Z element lands.

10.05. MONITORING COSTS.

Monitoring costs are very difficult to define since the distance between sites is not known, the terrain is unknown, and the size of the units is unknown. However, based on the lands studied and their experience with on-project monitoring, the Washington Game Department

10.06. GAME BIRD REPLACEMENT COSTS.

Game bird replacement costs, assuming the program proceeds as indicated in the Special Report or a similar program, should be a lump sum of \$1,159,000 (1975 levels) for 20,000 birds for 20 years.

10.07. COST SUMMARY.

A summary of the costs of the project is shown below:

a. Initial Costs.

Real Estate	\$11,764,000
Development	
Element X	159,500
Element Y	17,500
Element Z	23,000
Initial Monitoring	<u>100,000</u>
TOTAL	\$12,064,000

b. Annual Operation and Maintenance Costs.

Washington Department of Game Costs (Elements X and Z)	\$84,600
Corps Costs (Element Y)	\$4,000
Annual Corps Monitoring Costs (assuming each area is monitored once every five years)	\$20,000

c. Game Bird Replacement Costs.

Lump Sum Payment for 20,000 Birds for 20 Years	\$1,159,000
---	-------------

SECTION 11 - DISCUSSION

a. The key factor in the success of completing the wildlife compensation and fisherman access portions of the Lower Snake River Fish and Wildlife Compensation Plan will be the degree of success using the willing buyer-willing seller concept for land acquisition. The public workshops indicated it will be difficult, if not impossible, to get all of the land necessary. The major objections were directed toward the perpetual easements. Several landowners expressed interest if this item in the plan was changed. However, until an attempt is made to acquire land using the criteria set forth, a realistic feeling for the success of the plan cannot be gained. The Counties of Columbia and Whitman have indicated that they consider the plan contrary to their comprehensive plans and, therefore, obtaining the planning commission's approval required for Element X may be impossible in these counties.

b. Of the specific sites selected for study, it appears that very few will be available. Detailed site investigations will have to be made after the willing buyer-willing seller and other criteria are met. Washington Department of Game and the Corps of Engineers will work closely on the selection of the sites. After acquisition, detailed plans will be made for the development of the areas. Development will be tailored and scoped to the existing habitat and terrain.

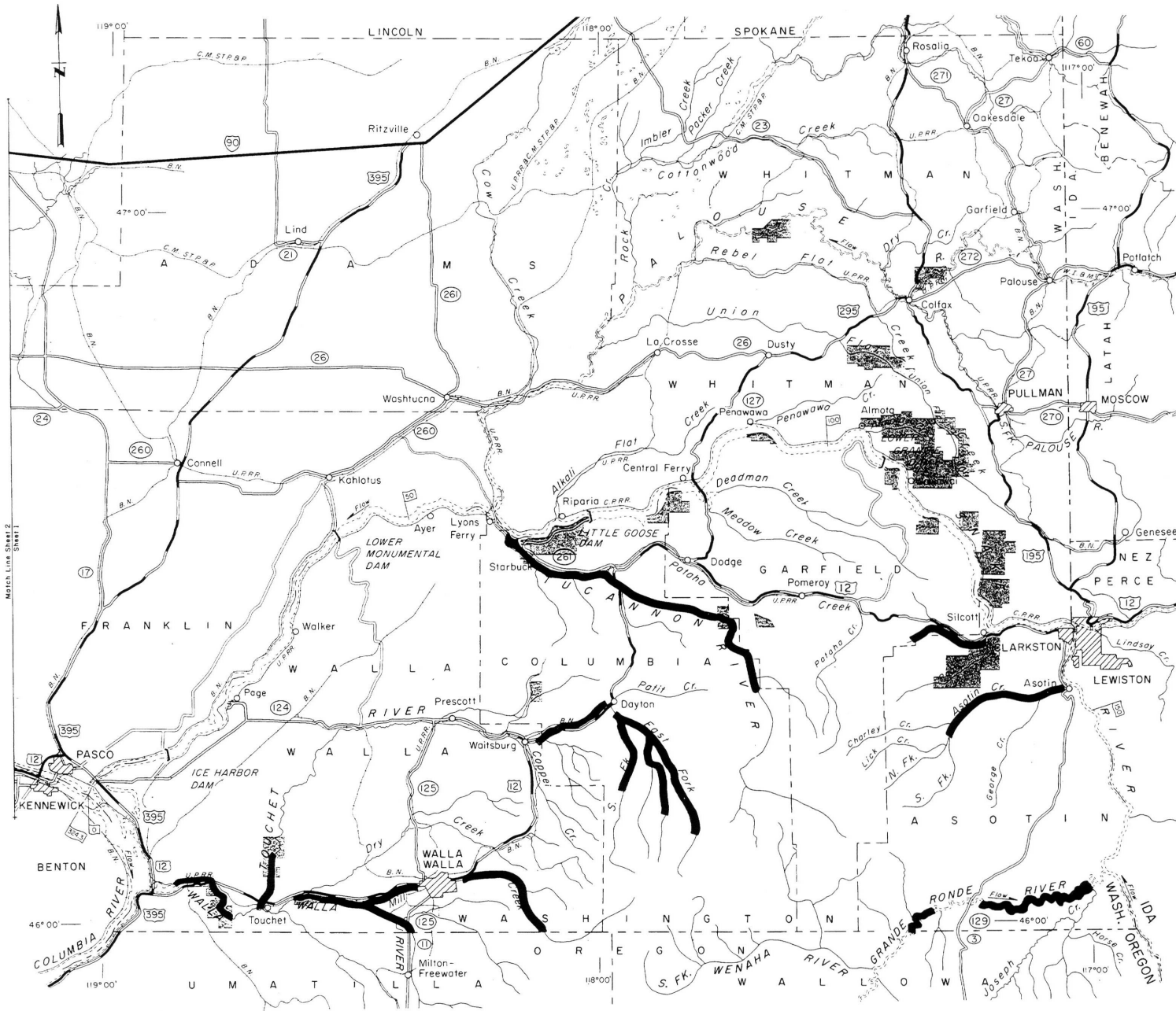
c. The land acquired for all elements and its initial development will be funded by the Corps of Engineers, as will the initial monitoring effort. Operation and maintenance of the Element Y lands and post development monitoring of all elements will also be financed by the Corps as an O&M item. The Washington Department of Game will fund operation and maintenance of Element X and Z lands.

d. Monitoring to determine the success of the land purchases and management programs will be necessary.

e. The game bird replacement portion of the Compensation Plan ~~is~~ currently under reevaluation by the Washington Department of Game. When a final decision is made on how this portion should be approached, a supplement will be made to this Design Memorandum.

SECTION 12 - RECOMMENDATIONS

It is recommended that the land acquisition, development, and operation and maintenance proposals described in this report be approved so that land acquisition can begin in fiscal year 1980.

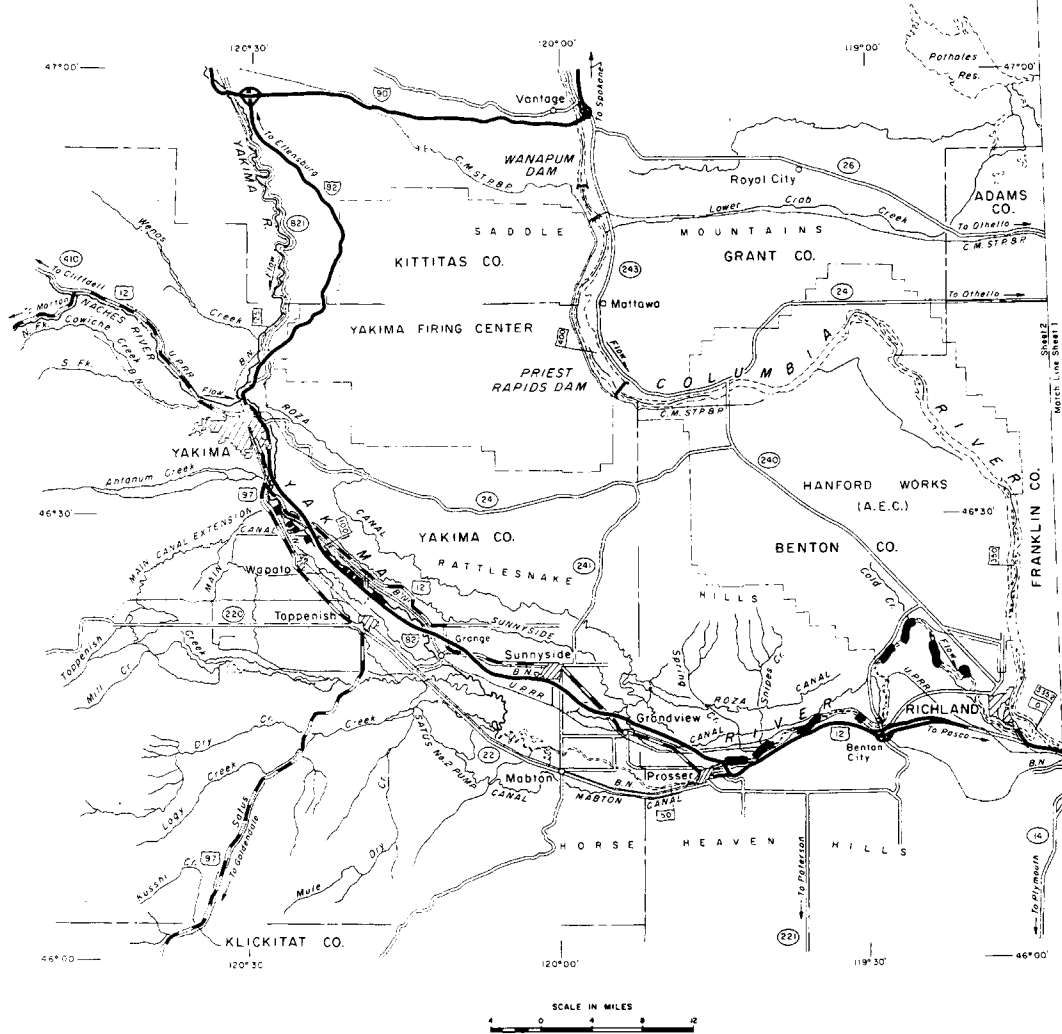


LEGEND

-  ELEMENT X
-  ELEMENT Y
-  ELEMENT Z



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT WALLA WALLA, WASHINGTON			
LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN YAKIMA & SNAKE RIVERS, WASHINGTON			
SITES STUDIED FOR OFF-PROJECT WILDLIFE AND FISHING ACCESS COMPENSATION			
DESIGNED: <i>W. Stanger</i>	APPROVED: <i>W. G. Pranner</i> DATE 79 Nov 16		
DRAWN: <i>V. Henry</i>	COLONEL, U.S. DISTRICT ENGINEER		
CHECKED: <i>V. Ambrose</i>	SCALE AS SHOWN	INV. NO.	FILE NO.
SUBMITTED: <i>W. G. Pranner</i>	RECOMMENDED:	SHEET	SN-05-27/1

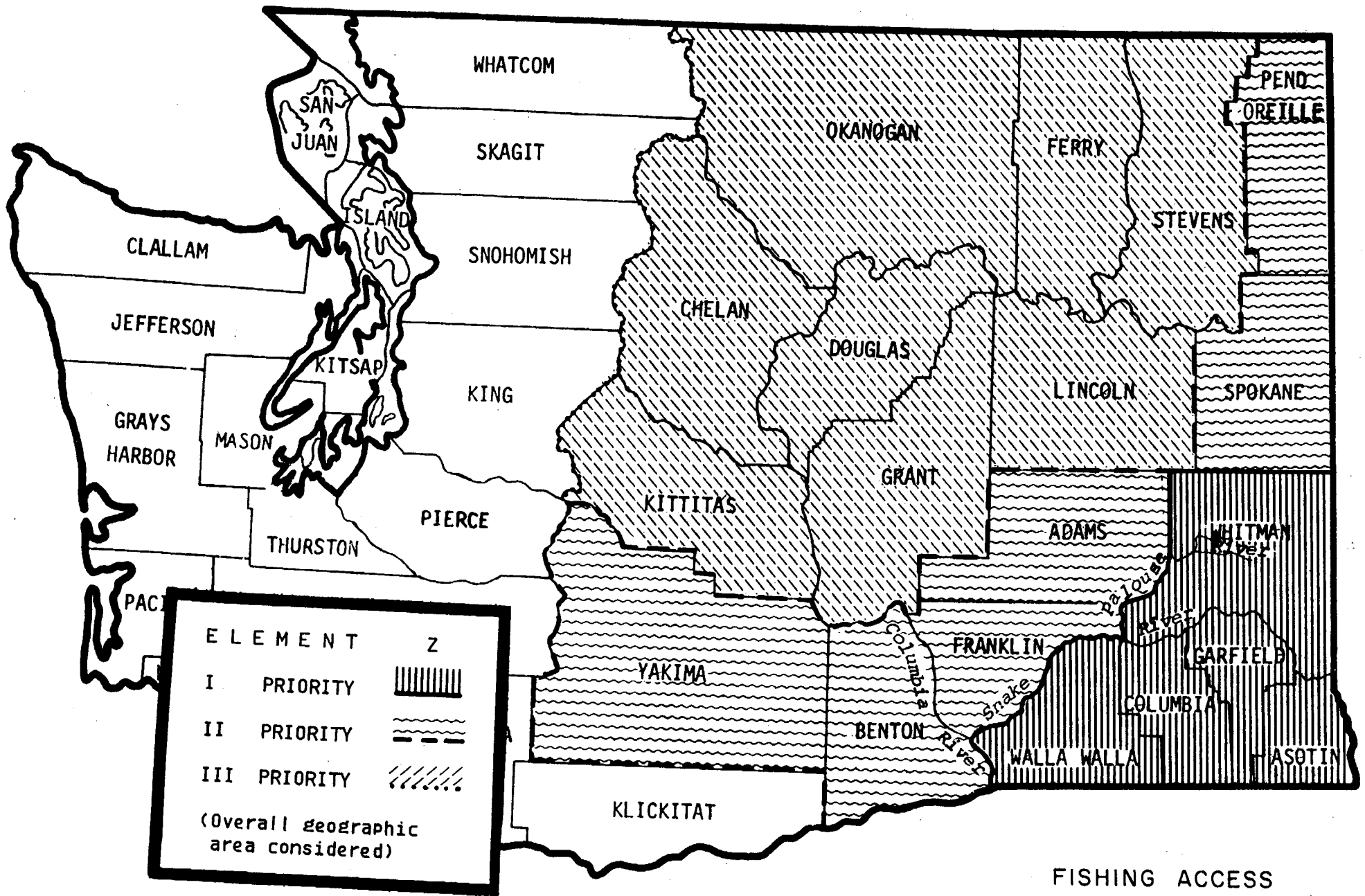


LEGEND

ELEMENT Z

NOTE
Compiled from A. M. S. Maps dated
1953, 1955, Quad. Maps dated 1963
and State Map dated 1979.

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT WALLA WALLA, WASHINGTON			
DESIGNED <i>M. Stepp</i>		LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN YAKIMA & SNAKE RIVERS, WASHINGTON	
DRAWN <i>V. Hasty</i>		SITES STUDIED ON YAKIMA RIVER FOR FISHING ACCESS - PRIORITY 2	
CHECKED <i>V. Armstrong</i>			
APPROVED <i>[Signature]</i>			
DATE	79 Nov 16		
SCALE AS SHOWN	INV. NO.		
		FILE NO.	SN-05-27/2
		SHEET	



FISHING ACCESS
 AREAS BY PRIORITY
 DM 6 SN-05-27/3
 PLATE 3

APPENDIX A

OFF-PROJECT WILDLIFE COMPENSATION CRITERIA

LOWER SNAKE RIVER FISH AND WILDLIFE
COMPENSATION PLAN

Submitted By

WASHINGTON DEPARTMENT OF GAME

Under the Provisions of Contract DACW68-78-C-0040

To

U. S. ARMY DISTRICT, WALLA WALLA
CORPS OF ENGINEERS

DECEMBER 1978

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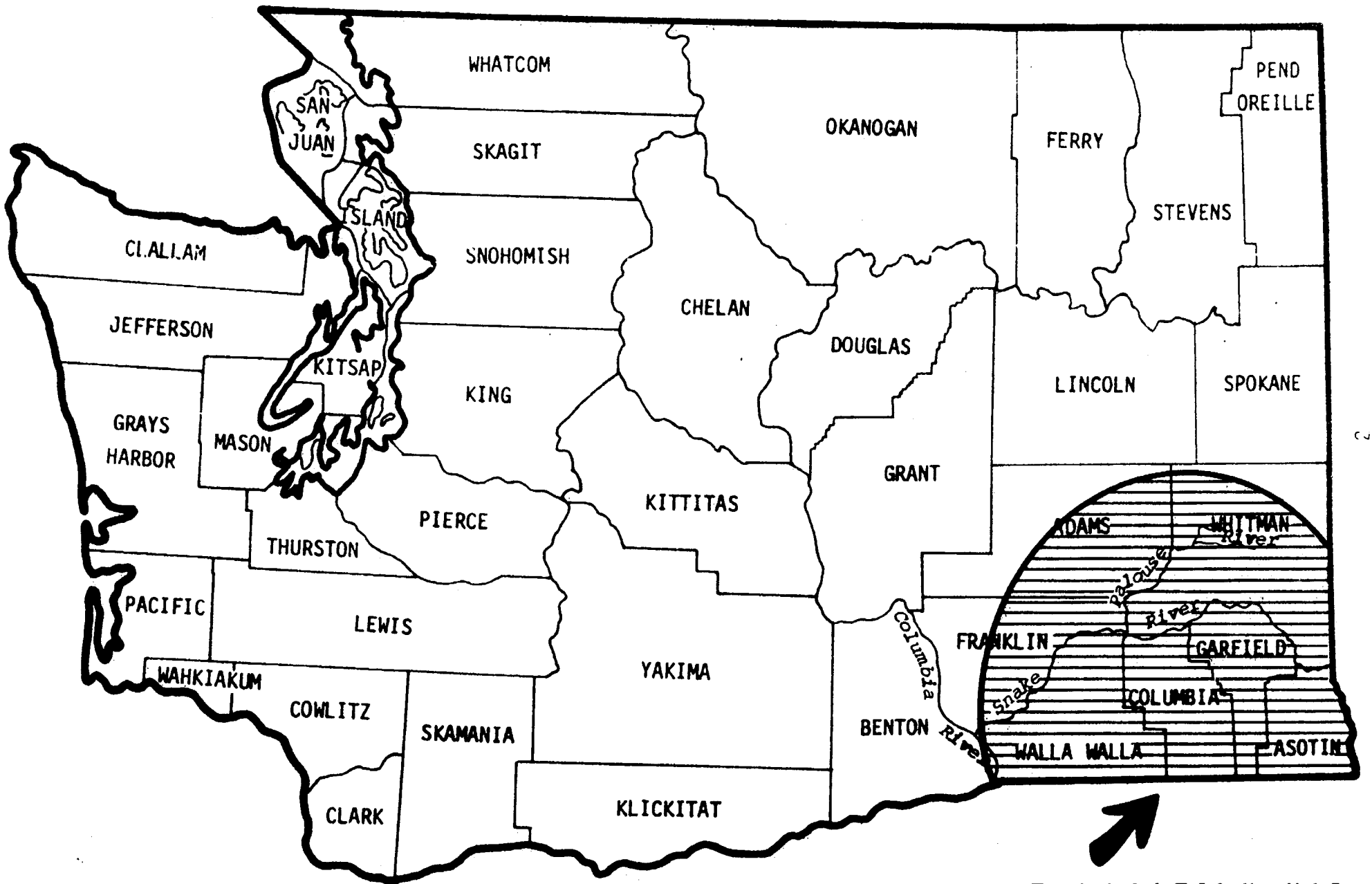
INTRODUCTION

Construction of four dams on the Lower Snake River resulted in inundation of significant riparian habitats. These habitats were vital to survival of many forms of wildlife. Public use of this resource was also lost. Details on the scope of these losses and means to mitigate them are discussed in a June 1975 special report, Lower Snake River Fish and Wildlife Compensation Plan (compensation plan).

The material which follows includes acquisition, development, and management criteria; a summary of coordination activities; and a preliminary basis for the development, operation, and maintenance data to actually accomplish compensation. Due consideration was given to the needs of wildlife, the expectations of the users of this resource, and the concerns and wishes of citizens of southeastern Washington.

Special interest and emphasis of the Game Department and the Corps of Engineers were given to maintaining and protecting existing land use patterns. Protection of the area's agricultural base and economy was an important consideration. The willing seller-willing buyer concept was, and remains, a key ingredient of the planned acquisition program.

The plan is designed to compensate lost wildlife and user opportunities; at the same time, it will yield significant recreational and economic benefits to local communities, the region, and the state.



PROJECT LOCATION MAP

OFF-PROJECT COMPENSATION CRITERIA

Background

The purpose of establishing guidelines, or criteria, for selection, development, and management of off-project compensation sites is to insure the best opportunities for successfully replacing fish and wild-life losses and related recreation caused by Lower Snake River dams. These criteria will guide the acquisition process, delineate development and management goals, and establish procedure for measuring success of development and management endeavors.

Selection, development, and management criteria have been formulated for three land acquisition elements (which are more fully described in the compensation plan) and for monitoring and reporting.

Briefly, the land acquisition elements are as follows:

Element X - 8,400 acres for upland game bird hunting (400 acres in fee and 8,000 acres in easement) to be acquired and developed by the Washington Department of Game with reimbursement by the Corps of Engineers.

Element Y - 15,000 acres in easement for access to project lands primarily for chukar partridge hunting to be acquired and developed by the Corps of Engineers.

Element Z - 700 riparian acres in easement or fee for steelhead fishing to be acquired and developed by the Washington Department of Game with reimbursement by the Corps of Engineers. This is an element of fisheries compensation but will be covered by this contract.

Monitoring and reporting criteria are designed to determine success of development and management of land acquired for wildlife production and public use.

The following criteria were formulated through literature review, field inspections, and professional consultations regarding wildlife habitat, fishing and hunting patterns, recreational demand, land acquisition, farm management, and local government.

GOAL

To replace wildlife and lost wildlife-related recreation opportunities caused by Lower Snake River dams. This will be done through acquisition, development, and management of habitat, wildlife, and public access on "off-project" lands and waters.

ELEMENT X

(400 acres fee; 8,000 acres easement)

Purchase and initial development funded by Corps of Engineers
Operation and maintenance funded by Department of Game

Objective

To select, develop, and manage streamside, tributary, and related lands acquired in fee as a core of wildlife habitat which will increase numbers and kinds of animals in the surrounding watershed. To acquire easements on land surrounding the habitat core for public hunting use.

Priorities

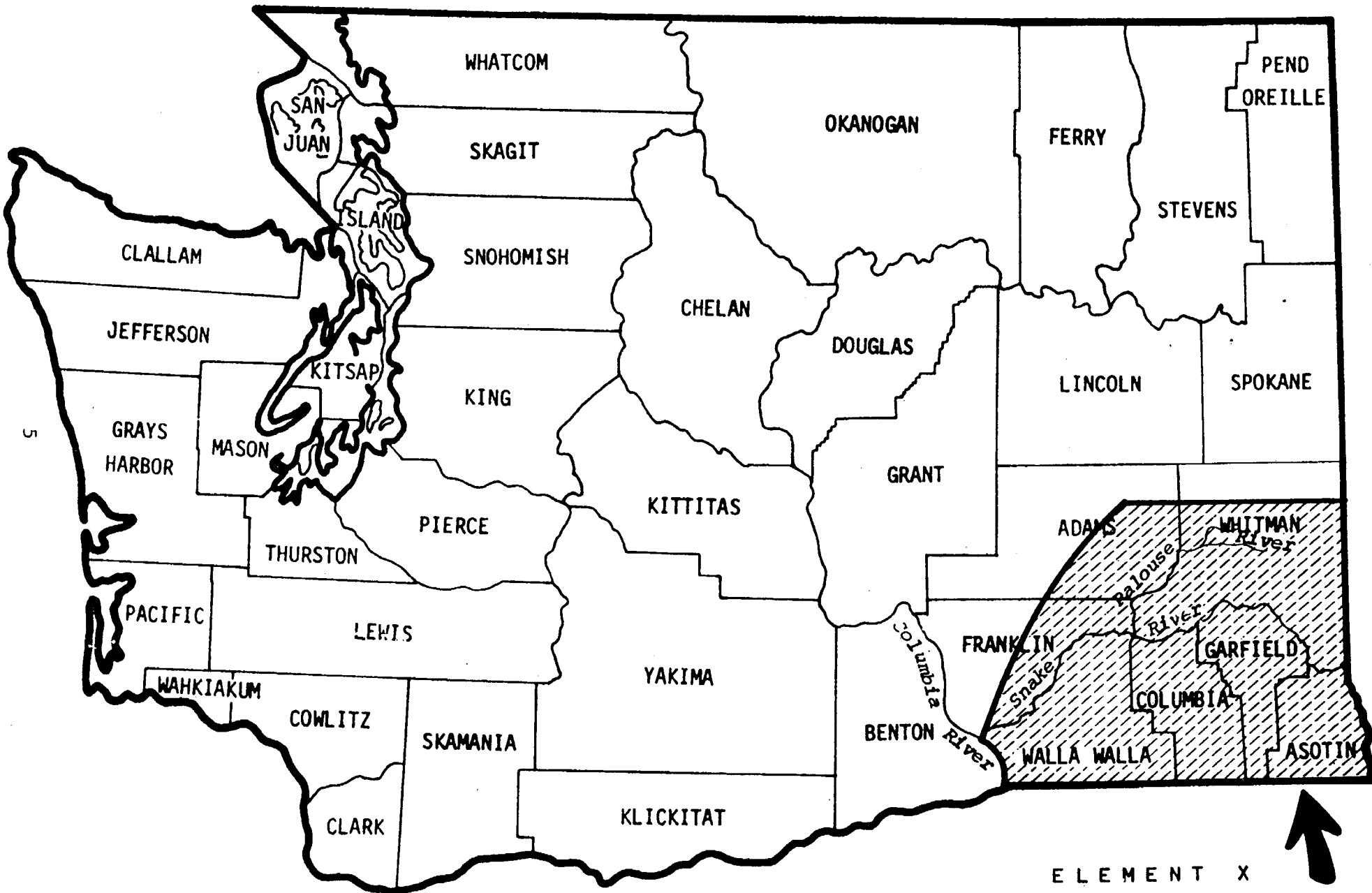
Selection of fee lands having potential for or with key riparian habitat values or other significant habitat which are generally located centrally within an agricultural area identified as having a history of high wildlife use.

Land Selection Criteria

Fee Lands

Lands purchased in fee shall consist of, or contain potential for, vegetation with value for food, cover, and nesting (Annex A).

- 1) Minimum width on the ground shall be 75 feet on each side of the stream; maximum width on the ground shall be 400 feet on each side of perennial streams and water courses.
- 2) Minimum length shall equal minimum width.
- 3) Steep, untilled portions of knolls or sidehills ("eyebrows") vary in size depending on topography and farming operations. They are valuable to



E L E M E N T X

OVERALL GEOGRAPHIC AREA CONSIDERED

wildlife because of native or introduced vegetation they contain. Quality of habitat rather than size of sites will determine whether they will be acquired.

- 4) In general, fee lands shall comprise the nucleus of a management unit and be surrounded by easement lands.

Easement Lands

Easement lands will abut or surround fee lands and allow hunting for wildlife produced and sheltered on fee lands.

- 1) Average ratio of "fee" to "hunter easement" lands shall be 1:20.
- 2) Easements shall be purchased in perpetuity and allow access during the hunting season.
- 3) Easements shall stipulate that lands acquired shall remain in agricultural use. "Agricultural use" shall be defined in the easement agreement.
- 4) The terms of the easement shall allow planting of game birds on easement lands.

Management Units

A management unit is the combination of fee and easement lands capable of providing food, cover, and nesting areas for wildlife and recreation use of that wildlife.

- 1) "Fee" to "hunting easement" ratio shall average 1:20.
- 2) Two types of units will be recognized: Natural production and artificial stocking.
- 3) Natural production units shall normally not be smaller than 100 acres (fee plus easement). Smaller size units will be evaluated on a case-by-case basis.
- 4) Artificial stocking units shall not be smaller than 360 acres (fee plus easement) and should be comprised

of habitat containing holding cover; these lands should allow maximum harvest of stocked birds while minimizing degradation of wildlife populations.

- 5) Wherever practical, management units shall be comprised of lands with easily recognizable physical boundaries.
- 6) Each management unit plan will be concurred in by the involved county planning commission.
- 7) All landowners in a given management unit will be willing sellers.
- 8) Game birds provided by Snake River Compensation Plan funding will be released to improve hunting on artificial stocking units.

Development Criteria

Habitat

- 1) Fence, where required, streamside areas purchased in fee (allow natural revegetation to take place).
- 2) Fence other sites, where needed, for protection on fee lands.
- 3) Plant woody vegetation to improve cover on fee lands where needed.
- 4) Develop springs, catchments, and other water sources (fee lands and, where agreed, on easements).
- 5) Plant perennial grasses in drainageways and wherever else needed (fee lands and, where agreed, on easements).
- 6) Construct artificial devices (roosts, brush piles, feeders, "guzzlers", etc.) as required (fee lands and, where agreed, on easements).

Access

- 1) Provide parking areas (shown on final site plans) to accommodate and control access where needed.
- 2) Fence to protect and control access where needed.

- 3) Identify entrance and exit routes.
- 4) Install reader boards, signs, stiles, gates, foot bridges, etc. (Annex B).
- 5) Provide sanitary facilities where needed (Annex B).
- 6) Provide facilities for handicapped where needed (Annex B).
- 7) Provide off-road controls (cables, ditches, moats, railroad bars, etc.) where needed.

Landowner Protection and Utility

- 1) Identify and install safety zones (protect buildings, livestock, etc.) (Annex C).
- 2) Identify and provide equipment and livestock crossing and watering corridors on fee lands.
- 3) Provide initial weed control measures (mechanical, vegetative, biological, chemical, etc.). Continuing control of noxious weeds is an O&M function; however, it may be accomplished by landowner under an O&M agreement.
- 4) Provide for combination wildlife/livestock water developments where required.
- 5) The areas involved in this element will be utilized by the hunting public during the general open hunting season, i.e., usually September 1 through January 15.
- 6) Control of off-road vehicle travel will be provided through appropriate informational signs at strategic locations and through active enforcement patrol.

General

- 1) Federal funding for acquisition and initial development of habitat and fisherman and hunter access lands by the State would be subject to their agreement to fund any additional development and annual operation and maintenance costs.

Management Criteria

Habitat

- 1) Maintain and repair all fences constructed as part of initial development, except where excluded by landowner agreement.
- 2) Maintain "ecological balance" between food, cover, and water for maximum numbers and kinds of wildlife (Annex D).
- 3) Maintain and repair wildlife water developments.
- 4) Revegetate where needed.
- 5) Maintain and repair artificial devices as needed.
- 6) Release game farm reared birds where criteria permit.

Access

- 1) Maintain and repair parking areas constructed as part of initial development.
- 2) Maintain and replace signs, stiles, gates, reader boards, etc., constructed as part of initial development.
- 3) Reader board will be designed and placed to take into account attainable levels of O&M and problems of vandalism.
- 4) Maintain and repair sanitary facilities constructed as part of initial development.
- 5) Make necessary changes to access plans and facilities.
- 6) Patrol to inform and enforce controls and regulations.
- 7) Restrict public entry to designated points (Annex B).
- 8) Boundaries of all units under this program will be clearly marked with appropriate signs to designate the limits of the unit involved.

Landowner Protection and Utility

- 1) Maintain and enforce safety zones (Annex C).
- 2) Maintain combination livestock/wildlife water developments as necessary. (Maintenance will be responsibility of principal users.)
- 3) Enforce access and hunting regulations on management units.
- 4) Restrict public use of easement lands to the hunting season unless otherwise provided.
- 5) Comply with all federal, state, county, and local laws and regulations concerning weed control, fire protection, crop damage, and liability.

ELEMENT Y

(15,000 acres easement)

Purchase, initial development, operations, and maintenance
funded by Corps of Engineers

Objective

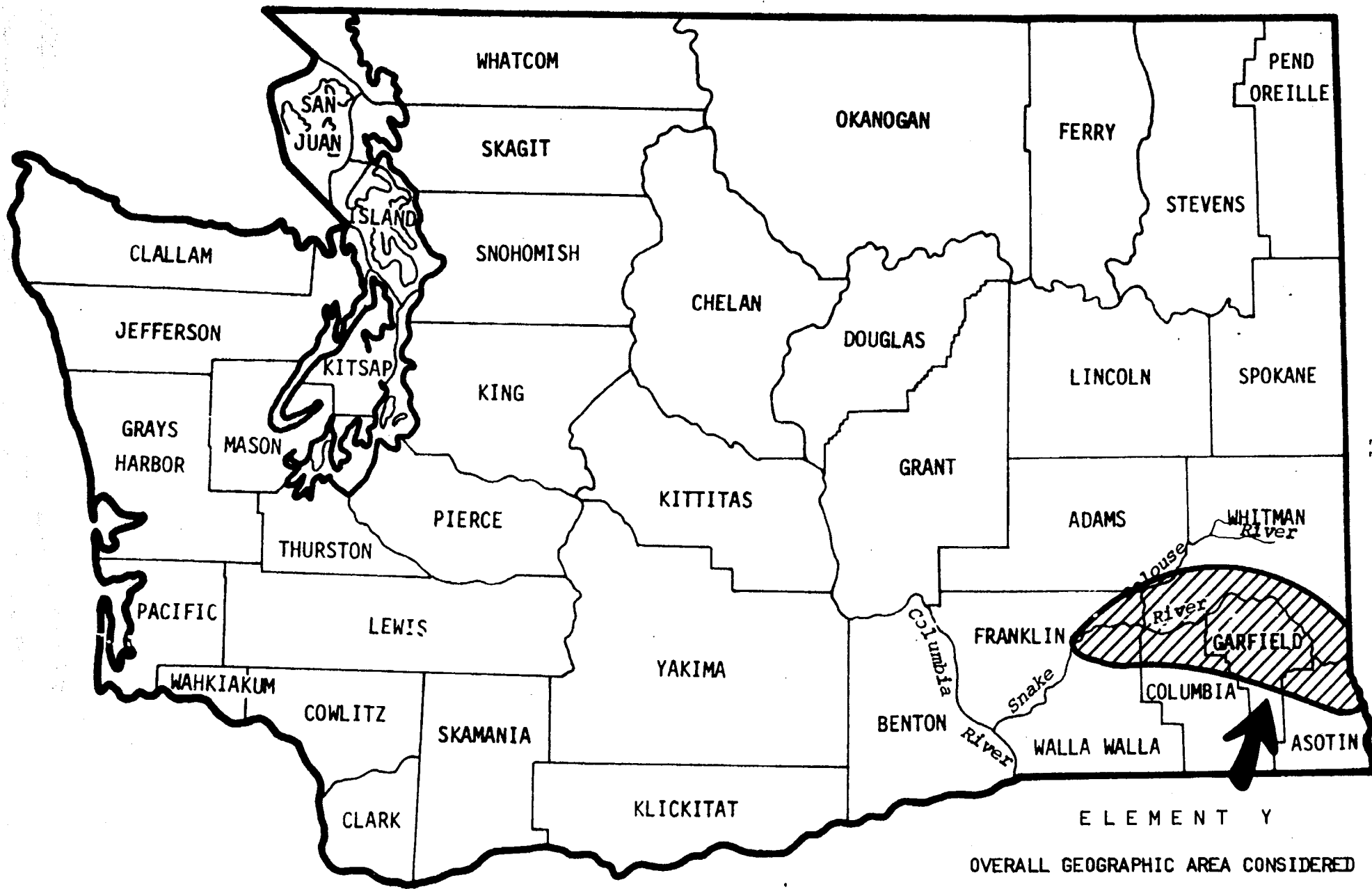
To select, develop, and manage private lands identified by the Washington Game Department abutting Snake River Corps-owned project lands for public access and wildlife production, primarily chukar partridge.

Priorities

Selection of private lands should facilitate management and hunting use of a "top-to-bottom" section of Snake River Canyon. Sites will have existing or potential upland wildlife habitat values.

Land Selection Criteria

- 1) Lands shall be in the Snake River Canyon of Washington State.
- 2) Lands shall contain or have development potential for upland wildlife habitat (particularly chukar partridge).



ELEMENT Y
OVERALL GEOGRAPHIC AREA CONSIDERED

- 3) Land parcels must extend vertically from top of ridge to Corps of Engineers project lands along river wherever possible.
- 4) Land parcels shall extend horizontally, wherever possible, to include a watershed or canyon, rim to rim, emptying into the river.
- 5) Where a boundary fence exists and crosses a watershed vertically, the easement can be acquired if other wildlife and access requirements are met.
- 6) Public access to the lands from a public road or road easement should be available, preferably at top and bottom, creating walk-through hunting opportunities.
- 7) No tilled lands shall be included in parcels. However, private road easements across tilled lands can be acquired to facilitate use of parcels.
- 8) Parcels shall contain no roads unless that road is a public road or private road open to the public.
- 9) Preference shall be given to parcels where habitat development will be allowed.
- 10) Easements will be acquired in perpetuity and allow access during the hunting season.
- 11) Each planned acquisition will be coordinated with the applicable local governing authorities.
- 12) All landowners in a given management unit will be willing sellers.
- 13) Some Element Y sites will be selected to receive game farm-reared birds provided by Snake River compensation. These will be released on sites where permitted by easement conditions.

Development Criteria

Habitat

- 1) Develop site plans.
- 2) Develop and fence springs, seeps, and other natural water areas to protect site and adjacent vegetation. (These specific sites will be purchased in fee where necessary.)

- 3) Develop artificial sources of water (cisterns, windmills, etc.) and fence to protect from cattle. (These specific sites will be purchased in fee where necessary.)
- 4) Develop combination cattle/wildlife watering areas where necessary.
- 5) Provide brush piles, roosts, feeders, etc., where necessary.

Access

- 1) Develop site plans.
- 2) Provide parking or pull-out areas.
- 3) Fence where needed.
- 4) Identify designated boundaries and entrance and exit areas.
- 5) Install reader boards, signs, stiles, etc., where necessary (Annex B).
- 6) Provide sanitary facilities as necessary.

Landowner Protection and Utility

- 1) Develop site plans.
- 2) Identify and install safety zones (Annex C).
- 3) Provide for combination wildlife/livestock water developments where required.
- 4) Develop sanitary facilities where needed (Annex B).

General

- 1) Federal funding for acquisition and initial development of habitat and fisherman and hunter access lands by the State would be subject to their agreement to fund any additional development and annual operation and maintenance costs.

Management Criteria

Habitat

- 1) Maintain and repair all project installed fences as needed.
- 2) Maintain "ecological balance" between food, cover, and water for maximum numbers and kinds of wildlife (Annex D).
- 3) Maintain and repair water developments as necessary and as stipulated in the easement acquisition agreement.
- 4) Maintain and repair artificial devices as needed.
- 5) Release game farm-reared birds where criteria permit.

Access

- 1) Maintain and repair parking areas constructed as part of initial development.
- 2) Maintain and replace signs, stiles, gates, reader boards, etc., constructed as part of initial development.
- 3) Reader board will be designed and placed to take into account attainable levels of O&M and problems of vandalism.
- 4) Maintain and repair sanitary facilities constructed as part of initial development.
- 5) Make necessary changes to access plans and facilities.
- 6) Patrol to inform and enforce controls and regulations.
- 7) Restrict public entry to designated points (Annex B).
- 8) Boundaries of all units under this program will be clearly marked with appropriate signs to designate the limits of the unit involved.

Landowner Protection and Utility

- 1) Maintain and enforce safety zones (Annex C).

- 2) Maintain combination livestock/wildlife water developments as necessary. (Maintenance will be responsibility of principal users.)
- 3) Enforce access and hunting regulations on management units.
- 4) Restrict public use of easement lands to the hunting season unless otherwise provided.
- 5) Comply with all federal, state, county, and local laws and regulations concerning weed control, fire protection, crop damage, and liability.

ELEMENT Z

(acquire 700 acres, fee and/or easement)

Purchase and initial development funded by Corps of Engineers
Operation and maintenance funded by Washington Department of Game

Objective

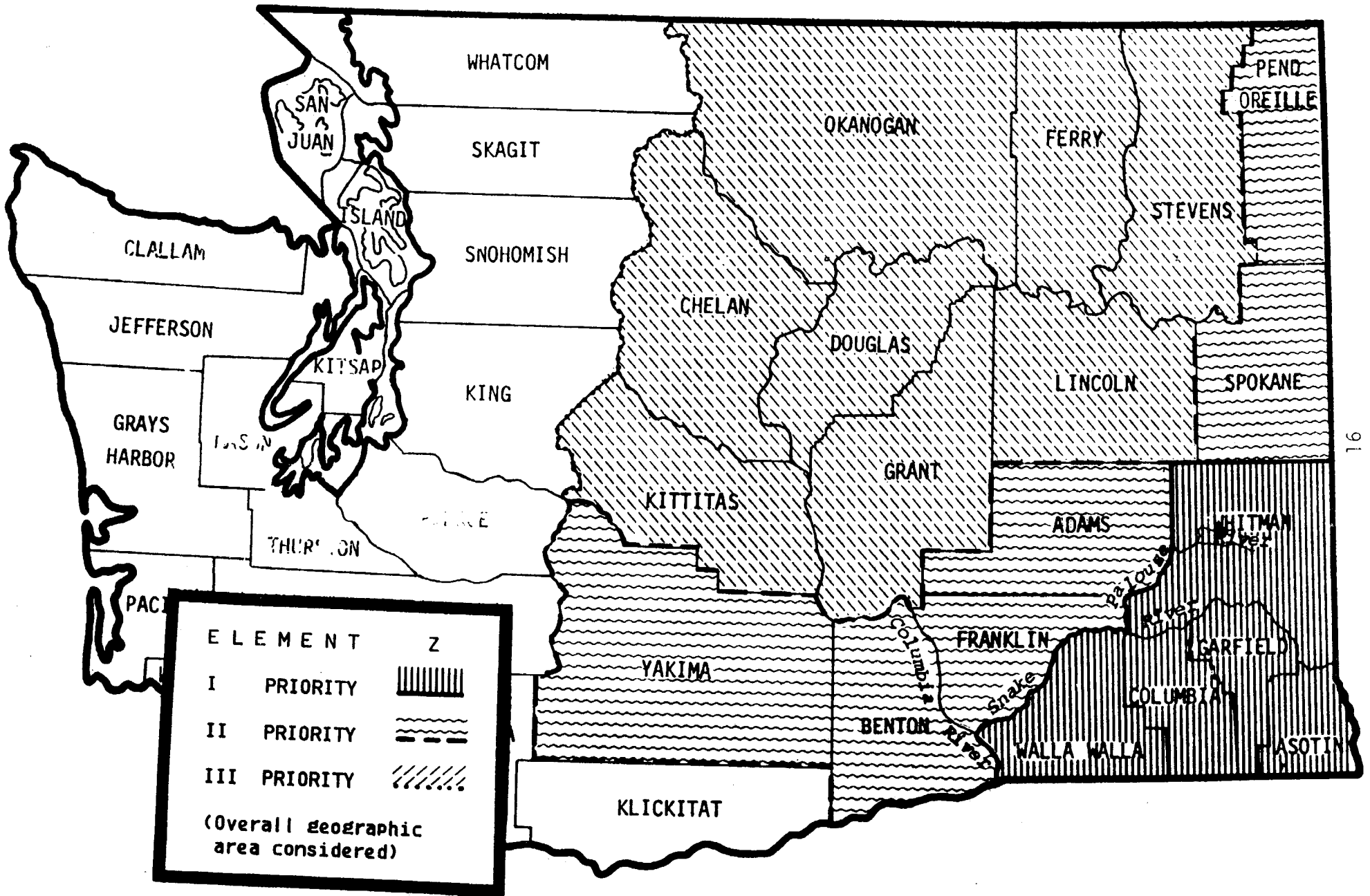
To select, develop, and manage streamside lands to provide access and other amenities for the public while fishing.

Priorities

Sites will be selected contiguous with water courses recognized as having sport fishing values. Preference shall be given streams with anadromous fish populations.

Land Selection Criteria

- 1) Minimum width shall be 25 feet per stream side; maximum width shall be generally determined by configuration of the riparian vegetation.
- 2) Tilled land will not be acquired except where required to maintain access continuity along stream.
- 3) Streamside acquisitions are not fixed but will "float" with the periodic movement and location of the water course (Annex E).



- 4) Streams shall be selected for acquisition according to the following priority:
 - a) tributary to Snake River in Whitman, Walla Walla, Garfield, Columbia, and Asotin Counties
 - b) streams in Yakima, Franklin, Benton, Adams, Spokane, and Pend Oreille Counties
 - c) streams in the remainder of Eastern Washington
- 5) Acquisition shall abut water courses with salmonid and/or whitefish populations.
- 6) Acquisition shall abut water courses with hydraulic and streamside characteristics conducive to production and fishability (Annex F).
- 7) Tilled or agricultural land may be acquired where connecting paths are needed to gain access from roads open to the public.
- 8) Connecting paths from road to stream shall not exceed ten feet in width.
- 9) Where streamside access acquisition exceeds two contiguous miles, a second connecting path should be provided.
- 10) Connecting paths should be located where streamside is nearest a road open to the public.
- 11) Parking or pull-out areas should be located near connecting paths.
- 12) Fish from new hatcheries constructed by Snake River Compensation Plan will be planted to improve catch along these lands.
- 13) All landowners in a given management unit will be willing sellers.
- 14) All planned acquisitions will be coordinated with the applicable local governing authorities.
- 15) Acquisition of streamside access can be accomplished by fee or easement as necessary to meet criteria.

Development Criteria

- 1) Fence all acquisition as necessary except where tilled (Annex G).
- 2) Provide parking areas, pull-outs, and connecting paths to accommodate and control entry.
- 3) Identify boundaries.
- 4) Install signs, reader boards, stiles, foot bridges, etc., as necessary (Annex B).
- 5) Provide sanitary facilities where needed (Annex B).
- 6) Provide boat launches where needed.
- 7) Develop shoreline trails (without adversely impacting natural integrity) where needed.
- 8) Identify and provide equipment and livestock crossings and watering corridors.
- 9) Provide initial weed control measures (chemical, vegetative, biological, etc.).

General

Federal funding for acquisition and initial development of habitat and fisherman and hunter access lands by the state would be subject to their agreement to fund any additional development and annual operation and maintenance costs.

Management Criteria

- 1) Maintain and repair fences constructed as part of initial development.
- 2) Maintain and replace signs, stiles, gates, reader boards, etc., constructed as part of initial development.
- 3) Maintain project installed sanitary facilities constructed as part of initial development as needed.
- 4) Make necessary changes to access plans and facilities.
- 5) Patrol to inform and enforce controls and regulations.
- 6) Restrict public entry to designated entry points.
- 7) Comply with all federal, state, county, and local laws and regulations concerning weed control, fire protection, crop damage, and liability.

ANNEX A

A LIST OF SOME PLANT SPECIES IMPORTANT AS WILDLIFE FOOD AND COVER IN SOUTHEAST WASHINGTON

Trees

Birch (Betula microphylla)
Black locust (Robinia pseudo-acacia)
Cottonwood (Populus trichocarpa)
Douglas maple (Acer glabrum)
Ponderosa pine (Pinus ponderosa)
Russian olive (Elaeagnus angustifolia)

Tall Shrubs

Black hawthorn (Crataegus douglasii)
Blue elderberry (Sambucus cerulea)
Box elder (Acer negundo)
Chokecherry (Prunus virginiana)
Ocean spray (Holodiscus discolor)
Smooth sumac (Rhus glabra)
Mockorange (Philadelphus lewisii)
White alder (Alnus rhombifolia)
Willow (Salix exigua)
Willow (Salix lasiandra)
Serviceberry (Amelanchier alnifolia)
Douglas hackberry (Celtis douglasii)

Short Shrubs

Phlox (Phlox longifolia)
Rose (Rosa nutkana)
Snowberry (Symphoricarpos albus)

Forbs

Bachelor's button (Centaurea cyanus)
Canada thistle (Cirsium arvense)
Clematis (Clematis ligusticifolia)
Common cocklebur (Xanthium strumarium)
Cow parsnip (Heracleum lanatum)
Curly dock (Rumex crispus)
Dandelion (Taraxacum officinale)
Deer horn (Clarkia pulchella)
Field dogfennel (Anthemis arvensis)

ANNEX A (continued)

Field horsetail (Equisetum arvense)
Field mint (Mentha arvensis)
Jim Hill mustard (Sisymbrium altissimum)
Monkey flower (Mimulus guttatus)
Morning glory (Convolvulus arvensis)
Pale strawberry (Fragaria cuneifolia)
Patience sorrel (Rumex patientia)
Poison hemlock (Conium maculatum)
Red clover (Trifolium pratense)
Shepherd's purse (Capsella Bursa-pastoris)
Silky lupine (Lupinus sericeus)
Stinging nettle (Urtica gracilis)
Tarweed (Amsinckia retrorsa)
White clover (Trifolium repens)
Wild hyacinth (Brodiaea douglasii)
Wild teasel (Dipacus sylvestris)
Yarrow (Achillea millefolium)
Hemp dogbane (Apocynum cannabinum)
Showy milkweed (Asclepias speciosa)
Spring draba (Draba verna)
Autumn willowweed (Epilobium paniculatum)
Storks bill (Erodium cicutarium)
Common sunflower (Helianthus annuus)
Clasping pepperweed (Lepidium perfoliatum)
White sweetcover (Melilotus alba)
Indian wheat (Plantago patagonica)
Yellow salsify (Tragopogon dubius)

Grasses

Cheatgrass (Bromus tectorum)
Foxtail (Alopecurus pallescens)
Kentucky bluegrass (Poa pratensis)
Rye grass (Elymus cinereus)
Salt grass (Distichlis stricta)
Wild oats (Avena fatula)
Japanese cheat (Bromus japonicus)
Rattle cheat (Bromus brizaeformis)
Foxtail barley (Hordeum jubatum)
Sandberg bluegrass (Poa sandbergii)

Weed control measures will be provided on fee lands to comply with the existing laws and regulations of the area.

ANNEX B

ACCESS AND SANITATION CRITERIA

Parking Areas and Sanitary Facilities

All developed parking areas will have informational "reader boards" installed which will be of easily replaceable construction and shall be approximately 4' X 4' in size. Reader Boards will provide information pertinent to the use of the area, such as maps, rules, and regulations. Overnight parking will not be allowed. Parking areas on major release sites shall be constructed to accommodate at least 15 vehicles but not more than 45 vehicles. Fishing access parking areas will have one vault-type toilet when the parking capacity is ten or more vehicles.

Gates and Stiles

- 1) No pedestrian gates will be provided.
- 2) Management access gates will be locked.
- 3) Stiles will be provided at all major entrance and exit points, but shall not be closer than 150 feet apart nor more than 1,320 feet apart.
- 4) Access lanes, where provided, shall have stiles on each side of the lane and on both sides of any lane stream crossing.

Handicapped Facilities

Where sanitary facilities are deemed necessary for the handicapped, they will be of the type which meets the needs of the handicapped.

ANNEX C

MANAGEMENT UNIT BOUNDARY AND SAFETY ZONE CRITERIA

Safety zone will be provided for landowner protection of farmstead buildings, corrals, and pastures where necessary. Except, no more than ten percent of the total area in taking shall be in safety zone. Every effort shall be made during the time of acquisition to exclude from taking obvious areas where safety is of paramount consideration. Limits of area to be included under safety zone protection will be part of the easement agreement.

To assure protection of and clearly identify adjacent lands not secured as a part of this program, boundaries of each management unit will be marked with appropriate signs which shall designate the limits of each unit involved.

Specific wording of all signs will be determined by agreement between Corps of Engineers and Washington Game Department.

ANNEX D

"ECOLOGIC BALANCE"

Ecology is the study of the relationship of organisms and their environment. An ecosystem is the fundamental unit in an ecologic relationship; it includes the organisms and the environmental factors with which they interreact.

The task of the wildlife manager (ecologist) is to manipulate and/or maintain environmental factors which benefit various kinds of wildlife (target organisms). To do this, elements of the environment required by wildlife are protected or created. It also is essential that a balance is maintained; i.e., the correct amount of each element is properly located. The principal elements of wildlife habitat are food, cover, and water ideally interspersed to accommodate daily and seasonal needs of wildlife. When this is achieved, an ecologic balance (productive habitat) exists.

The criteria in each of the three elements are designed to achieve "ecologic balance". The conceptual models typify this ecologic balance.

ANNEX E

FLOATING EASEMENTS

Streambank easements will be described to cover legal subdivisions or ownerships which will allow the easement to float with stream changes (so long as the stream is in the legal description or is an accretion to it). If the stream moves, the easement will still be a 25-foot wide strip of land along the stream and any lands of the grantors which may lie between said strip and the center of the stream or river.

ANNEX F

PRODUCTION AND FISHABILITY CRITERIA

In general, good rearing habitat will provide a level of fishing success which satisfies the majority of anglers. Maximum fishability is where streams with pool and riffle area about evenly divided (1:1). Pools should be deep enough to provide living room and escape cover. Pools should have a mean depth of (approximately) three feet or more and mean velocity of 2.5-3.0 feet per second (fps) or less. "Runs", another water type similar to a pool but shallower and generally with slightly higher velocity, are also desirable stream habitat. Riffles, with shallower water and higher velocity due to steeper gradient, are important aquatic insect (fish food) habitat but not good for fishing.

Cover is very important for rearing and fishability. Cover may be boulders or logs in the stream or vegetation consisting of trees, saplings, or shrubs growing along the banks. The thicker and higher the vegetation, the better. And the more stable the banks are, the better for rearing and fishing. Banks with evidence of significant recent erosion obviously indicate instability, which is not desirable. Water temperature should not exceed 70°. Gravel is the best bottom material and should be one inch to one foot in diameter. Silt deposits should be minimal.

Overall, good habitat for rearing and fishing has pools and riffles about 50-50, moderate velocity (fast in the riffles, slow in pools, in between through the runs), abundant cover in or over the stream, and stable banks.

The following table consists of trout stream habitat quality criteria from several sources. This information is intended as a guide and need not be strictly adhered to. This information, plus good judgment, should enable one to identify good trout habitat for fishing and rearing.

STREAM HABITAT QUALITY CRITERIA FOR REARING AND FISHABILITY¹

Rating ²	Pool area as percent of total stream sample area ³	Cover ⁴	Mean velocity of total stream sample area (pool and riffle)	Mean Width ⁵	Bank Stability
0	less than 10%	less than 10%	less than .25 fps or more than 4.0 fps	less than 2 ft or more than 100 ft	75-100
1	11-25%	11-25%	.25-.50 fps or 3.50-4.0 fps	2-6 or 75-100 ft	50-74
2	26-39%	26-39%	.51-1.0 fps or 3.0-3.49 fps	7-11 or 50-74 ft	25-49
3	40-50%	40-50%	1.01-1.50 fps or 2.50-2.99 fps	12-17 or 23-49 ft	10-24
4	more than 50%	more than 50%	1.51-2.49 fps	18-22 ft	0-9

¹To be measured during annual critical flow period.

²Lowest is 0; highest is 4.

³Pool is a stream area with mean depth more than 3 ft and mean velocity 2.5-3.0 fps or less. Run is an area with mean depth 1-3 ft and mean velocity 2.5-3.0 fps or less. Riffle is an area with mean depth 1 ft or less and mean velocity 2.5-3.0 fps or more.

⁴Cover includes boulders, logs, stumps, and vegetation in or overhanging banks. Vegetation is trees, saplings, and small to large shrubs. Grasses and bare soil do not count. Footage of vegetation along banks is percentage of total footage of both banks in sample area.

⁵Mean width measured at mean high water level. On multiple channels, distance between outer banks is measured.

⁶Banks stability is footage of banks showing erosion within last year, expressed as percent of total bank footage in sample area.

ANNEX G

STREAMSIDE FENCING CRITERIA

Streamside fencing on fishing acquisitions shall be constructed where livestock grazing is currently present and/or where protection of riparian vegetation is desirable. However, said fencing shall only be constructed where acquired lands permit construction outside 25-year flood plain.

MONITORING AND REPORTING
Funded By Corps of Engineers

Objective

The lower Snake River Fish and Wildlife Compensation Plan requires that: "Title to fee lands would be vested with the State for such period of time that the land is used for fish and wildlife management purposes." In order to ascertain the above, some procedure to determine success of development and management on acquired lands must be implemented. This is clearly a responsibility of the Corps of Engineers. To outline this procedure is the objective of this section.

Approach

- 1) Predevelopment data on numbers and kinds of wildlife will be acquired.
- 2) Effectiveness of development and management will be measured and evaluated--in terms of value to wildlife and public use.
- 3) Periodic censuses will be made and compared to predevelopment data. Annual censuses probably will not be necessary; census cycle will be determined after land acquisition program is operational.
- 4) Reports, including recommendations for change, if found necessary, will be submitted.
- 5) Appropriate techniques and reporting systems, similar to those described in modifications to contract No. DACW 68-78-0023, will be used where feasible.
- 6) Insofar as possible and practical and in the interest of cost reductions, work will be conducted by personnel assigned to the above contract.
- 7) Because timing and extent of effort will be predicted on amount and location of land acquired, details of the monitoring plan and costs cannot be accurately determined at this time. Final costs estimated will be provided when the acquisition program becomes operational and the need to start evaluation becomes apparent and cost effective. The evaluation proposal will be modest in scope as possible to accomplish evaluation goals and will utilize "on project" personnel when possible.

COORDINATION WITH COUNTY PLANNING PERSONNEL

In order to keep local authorities advised on the program and its progress, Washington Department of Game personnel met with county planning representatives on 21-22 August 1978. Walter Peck, Lands Agent, met with Garfield and Whitman County representatives. Dale Litzenberger, Wildlife Project Leader, met with Asotin, Columbia, and Walla Walla County representatives.

Their reports follow:

Walla Walla County

Met with Mr. Dan Van Hemert, Regional Planner, at 4:00 p.m., 21 August.

Delivered copies of the special report and all back issues of the Lower Snake Comp Plan Status Reports with an explanation of the content of each and reported on the present status of the program, emphasizing the willing seller-buyer concept.

Mr. Van Hemert had few questions. One comment he had was on the possible effect on some of our proposed Walla Walla and Touchet River developments from upstream streambed, bank stabilization, and channel straightening projects. His concern was the effect on stream flows during high water.

Columbia County

Met with Mr. Jack Thompson, Columbia County Planner, at 9:00 a.m., 22 August.

Delivered copies of the special report and all issues of the Lower Snake Comp Plan Status Reports with an explanation of the contents. I reported on the present status of the off-project program, with emphasis on the willing buyer-seller concept.

Mr. Thompson asked about the on-project program and the extent of plans and progress of this project. He said part of the considerable opposition within the county to the off-project program is a lack of knowledge about on-project developments. Apparently many of the residents object to off-project development, believing there is to be little or no work on project lands. I explained that there is an extensive development program underway on project lands, reporting in some detail on the plans. Mr. Thompson feels that full reporting of on-project programs would tend to soften off-project opposition.

He emphasized the extreme interest of the county commissioners in the project and strongly suggested they be kept up to date. I suggested the possibility of attending a commissioners' meeting, and he thought it would be very helpful.

Mr. Thompson asked about law enforcement for on-project lands, and I advised that this is to be handled by our field personnel, plus additional help through Corps contract with the Game Department and the counties.

Asotin County

Met with Mr. Bob Banger, Asotin County Planner, at 1:00 p.m., 22 August.

Delivered copies of the special report and back issues of Lower Snake Comp Plan Status Reports with an explanation of the contents.

Described the off-project elements and advised Mr. Banger on the current status of the project, emphasizing the willing seller-buyer concept.

He felt there would be landowner opposition to Element X and Z programs but Y would find better acceptance.

He also asked about law enforcement, but he had no other specific questions.

Like Mr. Thompson, he suggested a meeting with the county commissioners.

Addresses

Dan Van Hemert, Regional Planner
310 W. Poplar
Walla Walla, Washington 99362

Jack Thompson, County Planner
County Courthouse
Dayton, Washington 99346

Bob Banger, County Planner
Post Office Box 250
Asotin, Washington 99402

Garfield County

Met with Mr. Vearl Johnson, Garfield County Commissioner, on Monday, August 21, 1978, 3:15 p.m., in Pomeroy (Garfield County has no planner).

Gave him a copy of "Snake River Special Report", along with copies of Lower Snake Comp Plan Status Reports. Advised him I was finished with Phase I off-project lands portion within Garfield County and that report was being prepared. Emphasized willing buyer-willing seller concept in any future land acquisition attempts. Discussed what had been going on, i.e., determining land values, ownerships, looking at possible sites, etc.

Mr. Johnson said he had no questions at present time, had heard no comments either pro or con from his constituents. Said he believed Element Y lands might be relatively easy to acquire but didn't know what reaction would be from property owners in regard to Element X or Z proposals.

Mr. Johnson said he had attended recent meeting with Corps regarding potential fire problems on Corps lands and adjoining county lands and found Corps very cooperative and willing to help county.

Mr. Johnson would like to be on mailing list for future Corps information (newsletters, status reports, etc.).

Whitman County

Met with Mr. William Wagner, Director of Whitman County Regional Planning Council, and Mr. Jack Kartez, Whitman County Planner, on Tuesday, August 22, 1978, 11:00 a.m.

Gave them copies of "Snake River Special Report" and Lower Snake Comp Plan Status Reports. They would like to be included on mailing list for future Corps reports. Discussed our activities at this time, i.e., data gathering. Stressed willing buyer-seller concept. Mr. Wagner advised me that Whitman County recently adopted a comprehensive plan revision which, together with the county's zoning ordinance, will tend to encourage rural homesites (one-acre minimum size) along water courses and will tend to discourage rural development in agricultural areas where a twenty-acre minimum lot size is required. This could cause us difficulty with our Element X concept.

Mr. Wagner asked who would assume liability for either civil or criminal acts which might occur on lands we would lease. Advised him I would see that he received an answer to this question.

Mr. Wagner requests that contact be made with Mike Werner, Whitman County Parks Director, prior to any acquisition attempts within the county.

Both Mr. Wagner and Mr. Kartez expressed regret that we would not be attempting to acquire lands that presently have excellent riparian habitat as part of the Element X acquisitions. They feel we will lose these areas unless we acquire them in the near future.

Addresses

Mr. Vearl Johnson, Commissioner
Garfield County Courthouse
Pomeroy, Washington 99347

Mr. William Wagner, Director
Whitman County Regional Planning Council
Room 8, ONB Building
Colfax, Washington 99111

County Zoning Ordinances and Comprehensive Plans

The following data have been acquired:

- 1) Columbia County Interim Zoning Ordinance
- 2) Walla Walla Comprehensive Zoning Ordinance #70
- 3) Western Walla Walla County Comprehensive Plan
- 4) Whitman County Comprehensive Plan Revision

Due to the bulk of these documents, copies are available for study but are not included in the presentation.

Asotin County has no zoning ordinance per se. Only urban Asotin and Clarkston are zoned. County Planner Bob Banger advises the county is writing an ordinance, but he is not sure of the completion date.

Columbia County has completed but not published a comprehensive plan. It will be supplied on publication.

Garfield County is not zoned.²

Special Concerns

- 1) The question of landowner liability asked by Mr. Wagner of Whitman County is answered by Washington State statute RCW 4.24.200 and 4.24.210.

¹ 4.24.200 Liability of agricultural or forest landowners for injuries to recreation users -- Purpose. The purpose of RCW 4.24.200 and 4.24.210 is to encourage owners of land to make available land and water areas to the public for recreational purposes by limiting their liability toward persons entering thereon and toward persons who may be injured or otherwise damaged by the acts or omissions of persons entering therein. (Foot note continued on bottom of page 33)

² Since this report was published, Garfield County has been zoned and is working on a comprehensive plan.

- 2) County representatives were also concerned with law enforcement problems generated by increased public use of off-project lands. They were assured that adequate law enforcement would be provided.

Conclusions

- 1) All county people appreciated the contacts. Most were poorly informed on both on- and off-project segments.
- 2) Receipt of appropriate publications was appreciated, as was assurance they were on the mailing list for future publications.
- 3) Informational contacts with commissioners in Asotin and Columbia Counties were suggested. Arrangements will be made to have this type meeting put on the appropriate commission agendas.

DEVELOPMENT, OPERATION, AND MAINTENANCE

In order to meet the goal of replacement of lost wildlife habitat extensive developments will be necessary. These will include, but not be limited to, shrubs, trees, nesting cover, food plot plantings, and installations such as fences, water developments, feeders, and brush piles.

Public use facilities such as parking lots, sanitary facilities, and stiles will be needed, as well as signs and reader boards.

To assure establishment of shrub plantings, at least three years' cultivation will be required, and these sites will then be planted to perennial grasses and forbs.

¹ 4.24.210 -- Limitation. Any landowner who allows members of the public to use his agricultural or forest land for the purposes of outdoor recreation, which term includes hunting, fishing, camping, picnicking, hiking, pleasure driving, nature study, winter sports, viewing or enjoying historical, archaeological, scenic, or scientific sites, without charging a fee of any kind therefor, shall not be liable for unintentional injuries to such users: Provided, That nothing in this section shall prevent the liability of such a landowner for injuries sustained to users by reason of a known dangerous artificial latent condition for which warning signs have not been conspicuously posted: Provided further, That nothing in RCW 4.24.200 and 4.24.210 limits or expands in any way the doctrine of attractive nuisance.

Estimated Initial Development Unit Costs*

<u>Development</u>	<u>Unit</u>	<u>Estimated Cost</u>
Fencing	Foot	\$ 1.80
Shrubs	Acre	450.00
Grass/Legume Seeding	Acre	132.00
Stile	Each	35.00
Cistern	Each	1,100.00
Bird Feeder	Each	300.00
Grain Seeding	Acre	300.00
Fertilizer	Acre	35.00
Herbicide	Acre	6.25
Gate	Each	120.00
Vault Toilet	Per Unit	3,500.00
Boundary Sign/Safety	Each	2.50
Direction Sign	Each	16.00
Parking Area	Sq. Ft.	.25
Reader Board	Each	300.00
Culvert 12"	Foot	6.70
Cattle Guard	Each	1,020.00
Stock Water Tank	Each	150.00
Spring Development	Each	1,100.00
Quail Cover (Brush)	Each	50.00

*1978 price levels

Maintenance of these sites will be an on-going job. Items such as fence maintenance, sign replacement, parking lot and sanitary facility maintenance, and operations such as weed control and food plots will require time and effort annually.

Annual costs are amortized from life expectancy of the various development items. These are based upon Game Department experience with average life expectancy of these features.

Estimated Annual Operations/Maintenance Costs*

<u>O&M Item</u>	<u>Unit</u>	<u>Life Expectancy in Years</u>	<u>Estimated Annual Cost</u>
Fencing	Foot	20	\$.09
Gates	Each	10	12.00
Stiles	Each	20	1.75
Signs (Boundary/Safety)	Each	5	.50
Culvert	Foot	20	.33
Feeders	Each	10	30.00
Cattle Guard	Each	20	51.00
Reader Board	Each	20	15.00
Sanitary Units	Each	10	700.00
Cistern	Each	20	55.00
Stock Tank	Each	10	15.00
Parking Area	Sq. Ft.	30	.01
Grain for Feeders	Each	1	12.00
Spring	Each	10	110.00
Quail Cover (Brush)	Each	5	10.00
Direction Sign	Each	3	5.00
Fertilizer	Acre	1	35.00
Grain Seeding	Acre	1	300.00
Shrub Planting	Acre	15	30.00
Grass/Legume	Acre	15	8.80
Herbicide	Acre	1	6.25

*1978 price levels

Element X Management Unit
Typical Example Estimated Initial Development Cost

(for an area containing 200 acres in fee, 4,000 acres in easement)

<u>Item</u>	<u>Unit</u>	<u>Estimated Cost*</u>
Fencing	7.5 mi.	\$ 71,250.00
Stiles	30	1,010.00
Cistern	1	1,100.00
Gates	4	480.00
Cattle Guard	1	1,020.00
Spring Development	1	1,100.00
Culvert	3	400.00
Parking Areas	3	8,000.00
Reader Boards	3	900.00
Stock Water Tank	1	150.00
Boundary Signs	65	165.00
Safety Zone Signs	20	50.00
Direction Signs	4	65.00
Bird Feeder	4	1,200.00
Shrubs	71 ac.	32,000.00
Grass Legume	71 ac.	9,500.00
Grain Seeding	51 ac.	15,000.00
Quail Cover (Brush)	4	<u>200.00</u>
	Total Estimated Costs*	\$143,590.00
	Rounded	\$144,000.00

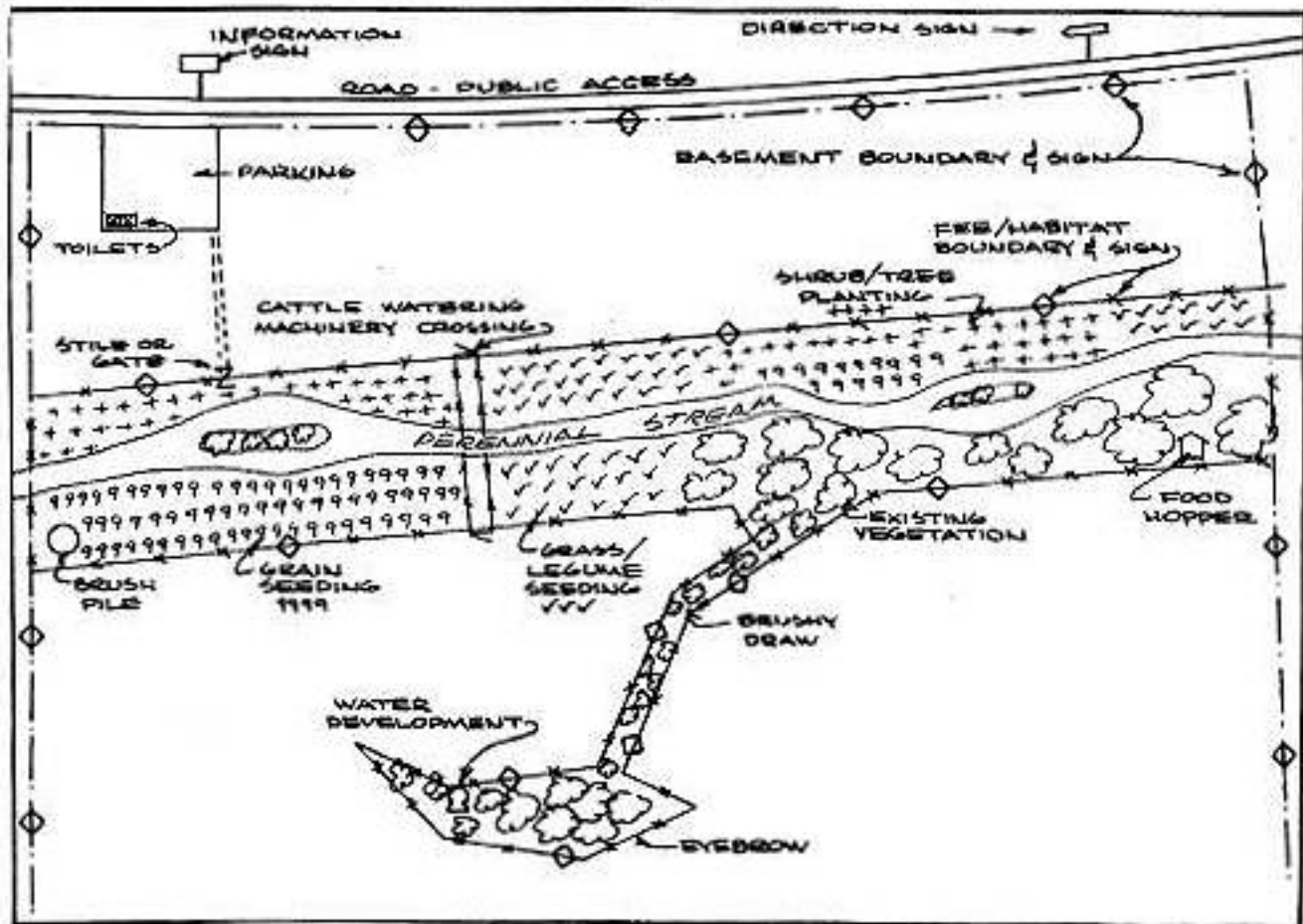
*1978 price levels

**Assumed approximately 3/4 of area will require fencing.

Element X Management Unit
Typical Example Estimated Annual Operation/Maintenance
(for an area containing 200 acres in fee, 4,000 acres in easement)

<u>Item</u>	<u>Unit</u>	<u>Life Expectancy in years</u>	<u>Annual Estimated Cost*</u>
Fencing	7.5 mi.	20	\$ 3,565.00
Stiles	30	20	55.00
Cistern	1	20	55.00
Gates	4	10	50.00
Cattle Guard	1	20	50.00
Spring Development	1	10	110.00
Culvert	3	20	20.00
Parking Areas	3	30	325.00
Reader Boards	3	20	45.00
Stock Water Tank	1	10	15.00
Boundary Signs	65	5	32.00
Safety Zone Signs	20	5	10.00
Direction Signs	4	3	20.00
Bird Feeders	4	10	120.00
Shrubs	71 ac.	15	2,100.00
Grass Legume	71 ac.	15	625.00
Grain Seeding	51 ac.	1	15,000.00
Quail Cover (Brush)	4	5	40.00
Herbicide	55 ac.	1	340.00
Grain for Feeders	4	1	50.00
Total Estimated Cost*			\$22,627.00
Rounded			\$22,500.00

CONCEPTUAL MODEL
DEVELOPMENT
ELEMENT X
Hunting



Element Y Management Unit
Typical Example Estimated Annual Operations/Maintenance

(for an area containing 3,750 acres)

<u>Item</u>	<u>Unit</u>	<u>Life Expectancy in years</u>	<u>Estimated Cost*</u>
Parking Areas	2	30	\$ 220.00
Cisterns	6	20	330.00
Reader Boards	4	20	60.00
Boundary Signs	100	5	50.00
Directional Signs	8	3	40.00
Fencing	1,200	20	110.00
Stiles	10	20	11.00
Culvert	2	20	13.00
Cattle Guard	2	20	<u>100.00</u>
		Total Estimated Cost	\$ 934.00
		Rounded	\$ 900.00

*1978 price levels

Element Y Management Unit
Typical Example Estimated Initial Development Cost

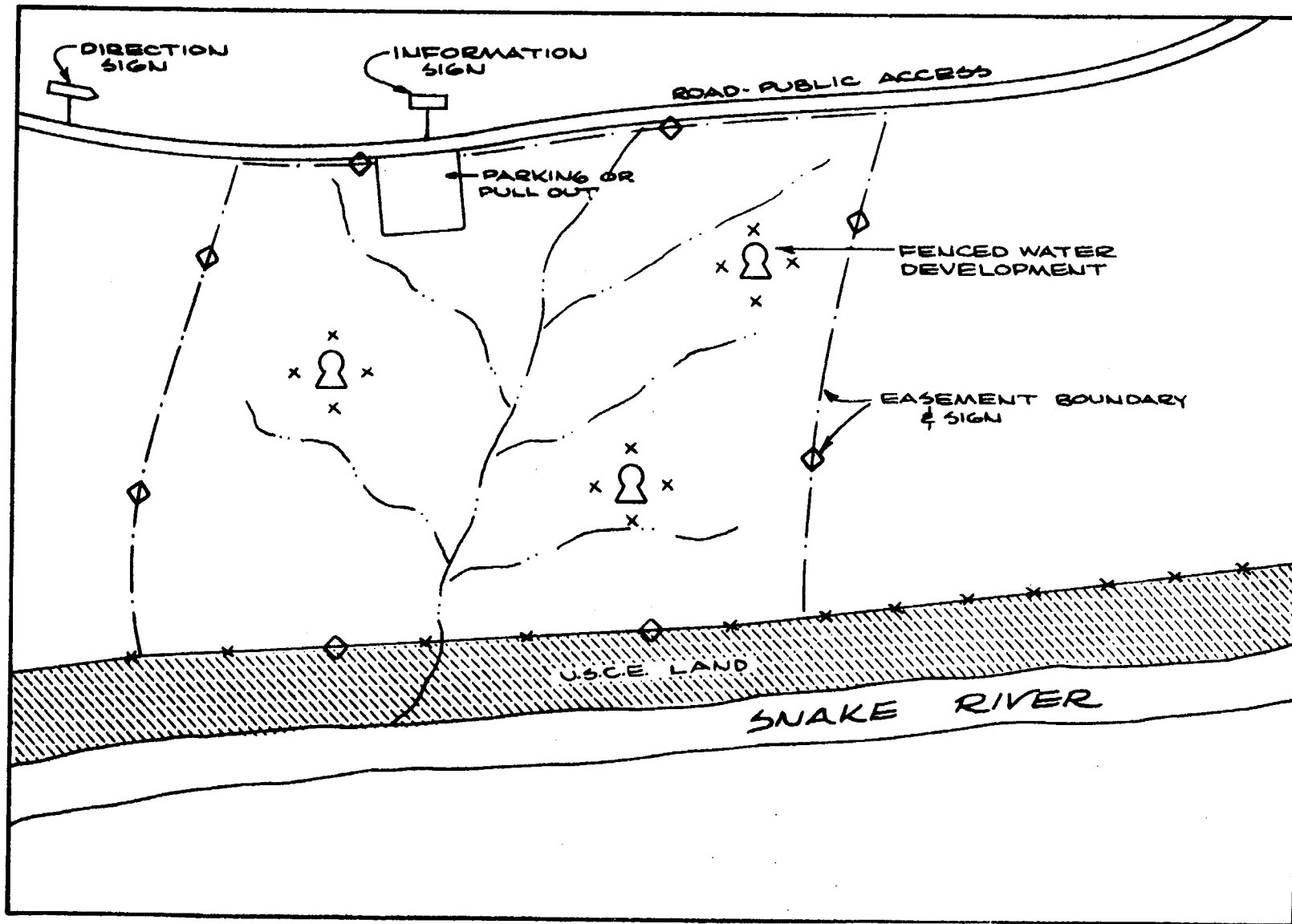
(for an area containing 3,750 acres)

<u>Item</u>	<u>Unit</u>	<u>Estimated Cost*</u>
Parking Areas	2	\$ 1,250.00
Cisterns	6	6,600.00
Reader Boards	4	1,200.00
Boundary Signs	100	250.00
Directional Signs	8	130.00
Fencing	1,200	3,600.00
Stiles	10	350.00
Culvert	2	270.00
Cattle Guard	2	<u>2,040.00</u>
	Total Estimated Cost	\$15,690.00
	Rounded	\$16,000.00

*1978 price levels

**Fencing around water developments and parking areas.

CONCEPTUAL MODEL
DEVELOPMENT
ELEMENT Y
Hunting



Element Z Management Unit
Typical Example Estimated Initial Development Cost

(for 6 miles of stream)
(35- 40 acres)

<u>Item</u>	<u>Unit</u>	<u>Estimated Cost*</u>
Parking Areas	4	\$10,800.00
Fencing	4,500 ft.	8,100.00
Stiles	14	500.00
Reader Boards	4	1,200.00
Vault Toilets	2 units	7,000.00
Direction Signs	6	<u>100.00</u>
	Total Estimated Costs	\$20,700.00
	Rounded	\$21,000.00

*1978 price levels

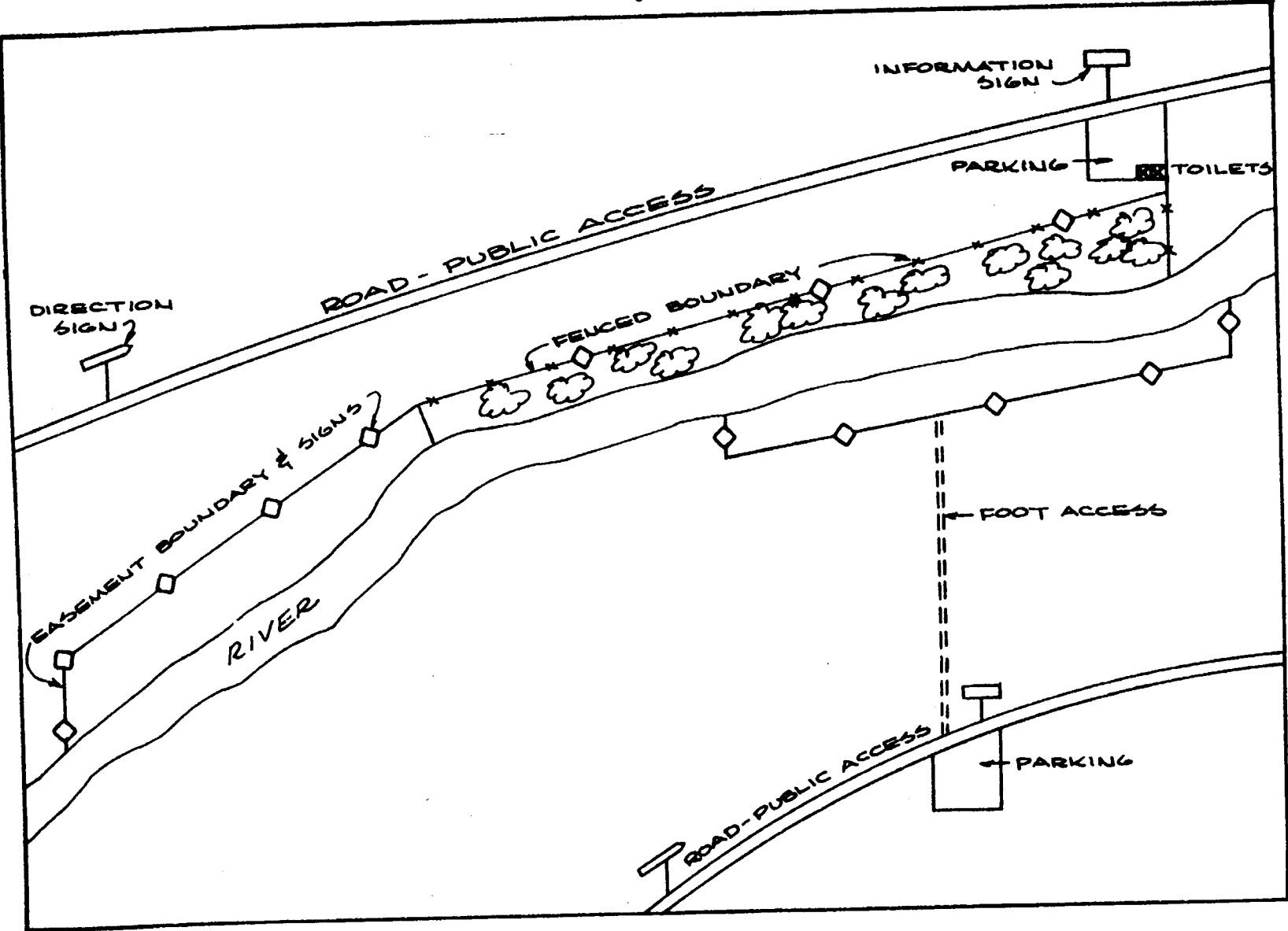
Element Z Management Unit
Typical Example Estimated Annual Operations/Maintenance

(for 6 miles of stream)
 (35-40 acres)

<u>Item</u>	<u>Unit</u>	<u>Life Expectancy in Years</u>	<u>Estimated Cost*</u>
Parking Area	4	30	\$ 435.00
Fencing	4,500 ft.	20	400.00
Stiles	14	20	25.00
Reader Boards	4	20	60.00
Vault Toilets	2 units	10	700.00
Direction Signs	6	3	<u>30.00</u>
		Total Estimated Costs	\$1,650.00
		Rounded	\$1,600.00

*1978 price levels

CONCEPTUAL MODEL
DEVELOPMENT
ELEMENT Z
Hunting



PATROL, ENFORCEMENT, AND COMMUNITY RELATIONS

Patrol, enforcement, and community relations are regarded as on-going management functions by Corps of Engineers thus WDG will continue these responsibilities based on the premise that patrol, enforcement and community relations will be performed by Wildlife Agents assigned to Districts within which compensation sites are located.

STANDARDS FOR SELECTING COMPENSATION SITES

Prior to actual selection, a team composed of Game Department personnel (representing administration, management, real estate, and biological expertise) will field examine recommended compensation sites. The purpose of this inspection will be to determine if each alternative site recommended for Elements X, Y, and Z meets mitigation criteria. The degree of compliance with criteria will guide acquisition efforts.

The standards which will decide the priority, or ranking, of individual element sites are these:

- 1) Does the site meet selection criteria?
- 2) Will the site meet public user needs?
- 3) Are landowner attitudes favorable?
- 4) Is acquisition of the site feasible at appraised fair market value?
- 5) Will a large number of landowners be affected?
- 6) Is the site easily accessible to the public?
- 7) Does the site have well-defined boundaries?
- 8) Does the site meet local government planning guidelines?
- 9) Can private property in or near sites be adequately protected?
- 10) Are topographic features favorable for attaining compensation goals?

APPENDIX B
CORRESPONDENCE

Page

1	Letter to WDG to Exclude Columbia County
2	Letter from Columbia County
5	Letter from Asotin County
6	Letter for Whitman County Planning Commission
7	Letter from Whitman County Commissioners
10	Letter from WDG on Game Bird Stocking

/VIC ARMACOST (BLDG 609) /

HPWEN-DB

6 April 1979

Mr. Wendell Oliver
Washington Department of Game
2302 Fruitvale Blvd.
Yakima, WA 98902

Dear Wendell:

Inclosed is a copy of the letter from the Columbia County Commissioners expressing their opposition to the purchase of lands for mitigation in Columbia County.

Because of this opposition and the fact that we had a public meeting with the Planning Commission, we are proposing that work shop meetings not be held in any of the communities in Columbia County.

In light of the opposition that we have in Columbia County, it would appear that it will not be possible to obtain the stream bank fishing lands prescribed in the Compensation Plan on tributaries to the Snake River in Washington. Because of this, it seems that now would be an appropriate time to begin to look to adjacent areas to identify other potential for resident sport fishing.

We have lined up places for work shop meetings in the other counties of eastern Washington. These will be on 7, 8, 9, and 10 May.

Sincerely yours,

1 Incl
As stated

LAWRENCE V. ARMACOST
Manager, Lower Snake River Fish
and Wildlife Compensation Plan

ARMACOST/ma

BRAMMER/DB

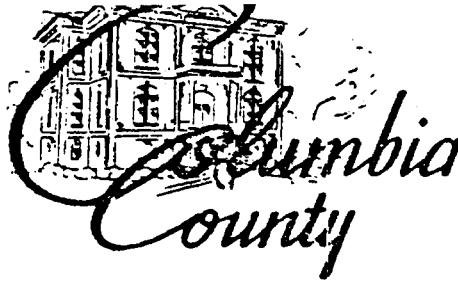
AS-G

EN

VERNON MARLL
District No. 1

LAWRENCE TURNER
District No. 2

PRESTON STEDMAN
District No. 3



OFFICE OF
BOARD OF COUNTY COMMISSIONERS

DAYTON, WASHINGTON 99328

April 4, 1979

Col. Christopher Allaire
U. S. Army Corps of Engineers
Airport
Walla Walla, Washington 99362

Dear Col. Allaire:

On March 19, 1979, Vic Armacost of the Corps of Engineers and Wendell Oliver, Washington State Department of Game, outlined to this Board of Columbia County Commissioners the Off-Project Wildlife Compensation Plan developed for proposed use in Columbia County. The Corps proposed a six hour informal session to meet with citizens of the county to outline the proposal, rather than go through the public hearing process. Com. Marll moved that prior to this or any other action, the Board refer this matter to the Planning Commission to ask if the Planning Commission would like to make a recommendation on the Corps proposal. The motion was passed.

Approximately sixty one persons, aside from officials, attended the March 29 meeting of the Planning Commission, at which time this mitigation proposal was discussed. The Columbia County Planner indicated those present were polled and total opposition was expressed by the citizenry attending the meeting.

Subsequently the Columbia County Planning Commission adopted a recommendation rejecting the mitigation plans due

APPROVED
BY BOARD OF COUNTY COMMISSIONERS
MARCH 29, 1979

Lawrence Turner
Vernon Marll

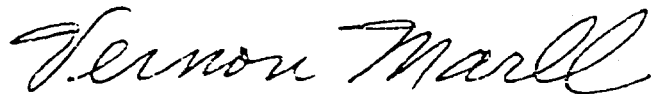
page 2
Col. Christopher Allaire
April 4, 1979

to non-compliance with the Columbia County Comprehensive Plan and the County Zoning Ordinance. On April 2, this Board of Columbia County Commissioners passed a motion approving the action of the Planning Commission. Page seven of the Columbia County Comprehensive Plan is enclosed for your information.

The Board of Columbia County Commissioners has requested that note be made in this letter that at various times, 1973 to date, hearings and meetings on mitigation plans have been held on Corps proposals for real estate acquisition in fee and/or easements for mitigation purposes. Through the years hearings and meetings have resulted in continued opposition. It is the opinion of the members of this Board that this issue has been more than adequately investigated. The efforts to obtain property through fee or easement in perpetuity by Federal or State Agencies for the purpose of mitigation is not acceptable to the people or officials of Columbia County and further discussion of this subject should not continue.

Sincerely,

BOARD OF COLUMBIA COUNTY
COMMISSIONERS



Vernon Marll
Commissioner

Enclosure

VM:dh

and to those over any other land use of no matter what short term economics that may be experienced by those other land uses.

8. TRAFFIC CIRCULATION

GOAL: To provide an efficient and balanced transportation system.

- POLICIES:**
- a. Coordination with county, state, and federal agencies involved in road proposals should be continued and increased.
 - b. Subdivision right-of-way, street and road standards should be established and enforced.
 - c. Improvement of existing roads should take precedence over the building of new roads.

9. COMMUNITY FACILITIES

GOAL: To provide necessary and adequate community facilities.

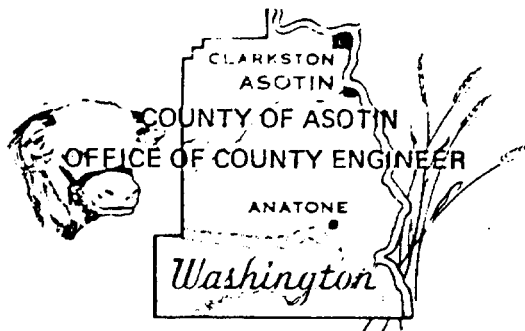
- POLICIES:**
- a. Sewage disposal system standards should be established.
 - b. Environmental capabilities should be carefully considered when planning community facilities.
 - c. Water quality standards should be established at the county level and enforced.
 - d. Fire protection facilities and districts should be reevaluated periodically to determine their adequacy.

10. GENERAL

GOAL: To protect the property rights within Columbia County and to preserve the existing environmental characteristics of the region.

- POLICIES:**
- a. The purchase, lease or other method of acquisition of any privately owned lands in Columbia County either in fee or by easement by any federal or state agency or agencies for the purpose of mitigating any fish and/or wildlife losses due to construction of dams on the Snake River shall require approval of the Columbia County Planning Commission and the Board of Columbia County Commissioners.
 - b. Establishment of further wilderness areas shall require approval of the Columbia County Planning Commission and the Board of Columbia County Commissioners.

Asotin County
Planning Commission
P.O. Box 160
ASOTIN, WASH. 99402
CODE 509 243-4174



May 18, 1979

Lawrence V. Armacost
Manager, Lower Snake River Fish & Wildlife Compensation Plan
Walla Walla District Corps of Engineers
Bldg. 602, City-County Airport
Walla Walla, Washington 99362

Dear Mr. Armacost:

The Asotin County Planning Commission discussed the proposed Lower Snake River Fish and Wildlife Compensation Plan at the recent meeting May 15th. Members had met with representatives of the Corps of Engineers, May 8th, in Asotin in regard to planned proposals in Asotin County.

After review of the plan and the proposed mapped areas in Asotin County, the Commission stated they were skeptical of the "chukar easements" proposed in an area south of Silcott. However, the Planning Commission was supportive of element Z, "streambank easements," located along the Grande Ronde River. This support was put in the form of a motion and the motion carried.

The Planning Commission also wishes to notify the project manager of additional county data compiled in the Asotin County Ecological Inventory and Land Use Suitability Analysis available from the Cooperative Extension Service, Washington State University, 99164.

Sincerely,

H. George Newman

H. George Newman
Planning Consultant
Asotin County Planning Commission

HGN:pc

OFFICE OF THE WHITMAN COUNTY

Planning Commission

COLFAX, WASHINGTON

May 7, 1979



Board of County Commissioners
Whitman County Courthouse
Colfax, WA 99111

RE: Wildlife Mitigation Plans
for Whitman County

Gentlemen:

Ted Gruenwald from the Department of Game spoke to the Planning Commission May 2, 1979, regarding Wildlife Mitigation Plans for Whitman County.

The Planning Commission would like to inform you that from the information that was provided to us on the Wildlife Mitigation Plan, it seems that it is not consistent with the Comprehensive Plan and that we would like to seek a means by which the Planning Commission can become involved in the initial planning process.

If you have any questions regarding the above information, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in cursive script that reads 'Norm Hatley'.

Norm Hatley, Chairman
Whitman County Planning Commission

skb

Office of Commissioners

Whitman County Courthouse
Colfax, Washington 99111
Phone (509) 397-2522

JAMES T. HENNING, St. John, First District
HARRY WEGNER, Pullman, Second District
JOHN HENLEY, JR., Hay, Third District

May 8, 1979

C. J. Allaire, Colonel, CE
Walla Walla District, Corps of Engineers
Bldg. 602, City-County Airport
Walla Walla, Washington 99362

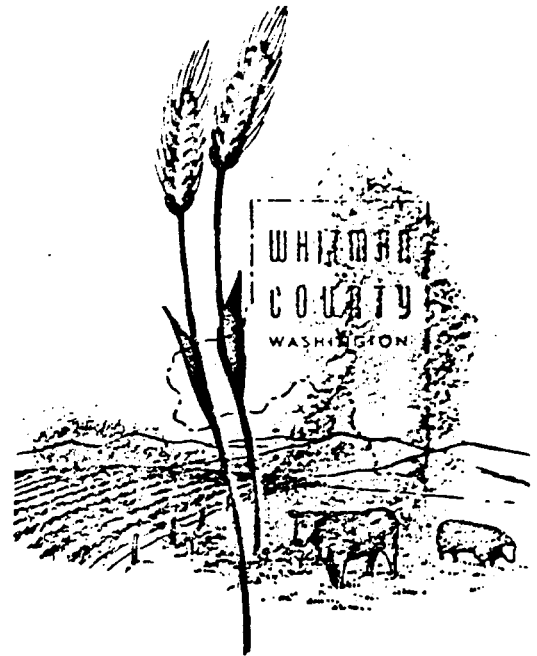
Dear Colonel Allaire:

On March 19, Whitman County Commissioners met with Mr. Vic Armacost, Corps of Engineers and Mr. Wendle Oliver, Washington Game Department, in regards to the Snake River Compensation Plan. At this time, both Mr. Armacost and Mr. Oliver stated that a public meeting would be held in Whitman County to inform the people of Whitman County of the Plan as presented by the Corps and the Game Department. Whitman County Commissioners asked that all of the land owners whose land might be considered in this game compensation plan, be notified of the upcoming meeting. The notices were sent out by the Corps and it was brought to the attention of the Whitman County Planning Commission how this Plan would relate to the Comprehensive Plan adopted by Whitman County last summer.

On May 2, Mr. Ted Gruenwald, Department of Game, spoke to the Planning Commission regarding this Plan and the Planning Commissioners informed the Commissioners that they would like to work with the Corps and the Game Department at the beginning of the process rather than later in the process. They asked the Commissioners to correspond with your office.

Yesterday, May 7, a meeting was held with Corps and Game Department officials in the County Public Service Building. A group of interested land owners came to the Commissioners' Office very concerned about the Corps acquiring hunting rights in perpetuity and purchasing some land within a 5-county area, to begin the mitigation plan. One of the concerns expressed by this group of people was the list of plants that would be planted in the areas purchased by the state as they are the same weeds that Whitman County farmers fight hard to keep off of their land. Under Whitman County's Comprehensive Plan, under the Public Facilities Land Use, Goal 1, it says:

"Construction of major facilities initiated by State or Federal government should be designed to minimize irreversible use of agricultural lands and to minimize impacts on farm and ranch operations."



C. J. Allaire, Colonel, CE
Page Two
May 8, 1979

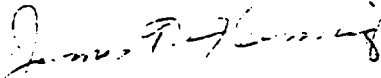
At the meeting yesterday, every farmer present in our office (see attached list) would not sell their hunting rights and were not interested in having hunters cross their land to Corps-leased-land, for this purpose. They recommended to the Commissioners that the Corps return to the Planning Commission and explain this to them.

Whitman County Commissioners feel that selling the hunting rights to the land in perpetuity is going to be a very detrimental factor to the Corps securing any land for hunting purposes. Farmers expressed concern that they would not go into this type of program but they might consider it if it was of a shorter duration. Perhaps if the word "perpetuity" could be eliminated, it would help to solve the problem. We definitely like the "willing seller, willing buyer" concept of the Plan.

We suggest that you contact either this office or the Planning Commission to get on the agenda for further conversation on this Wildlife Mitigation Plan.

Sincerely yours,

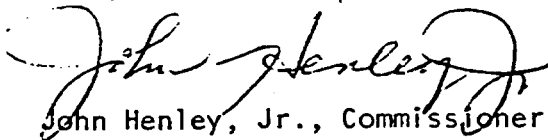
WHITMAN COUNTY BOARD OF COMMISSIONERS



James T. Henning, Chairman



Harry Wegner, Commissioner



John Henley, Jr., Commissioner

JTH:HW:JH/lb

Enclosure

Citizens Present in the Commissioners' Chambers, Monday, May 8, 1979, 2:30 p.m.

Re: Corps of Engineers Wildlife Mitigation Plan

Norm Hatley	Route 2, Box 402, Pullman, WA
Monty Kammerzell	Route 3, Box 25, Colfax, WA
Elmer Broweleit	Route 3, Box 30, Colfax, WA
Inez Broweleit	Route 3, Box 30, Colfax, WA
Gerald D. Hensen	Route 2, Box 404, Pullman, WA
Jim Hatley	Route 2, Pullman, WA
Mrs. Richard Templeton	Colfax, WA
Lawrence G. Crampton	Rt. 3, Colfax, WA.
Mrs. Lawrence Crampton	Rt. 3, Colfax, WA
Alex Teade	Rt. 2, Colfax, WA
Vic Armacost	Corps of Engrs., Walla Walla, WA
Gary Sharpe	Lewiston Morning Tribune
Robert Gross	Colfax, WA
Dellmer Teade	Rt. 2, Colfax, WA
Gerald Gilchrist	Rt. 3, Colfax, WA
Vann Long	Rt. 3, Colfax, WA
Rose Murray	Snake River Conservation Plan
Linda Eaton	Pullman, WA
E. G. Murray	Pullman, WA
Jerry Eaton	Pullman, WA
Alvin Kromlich	Colfax, WA
Vernon Henning	Route 3, Colfax, WA
Harriett & Edwin Hatley	Colfax, WA
<u>Bill Wagner - Jack Kartez</u>	Whitman County Regional Planning Council



STATE OF
WASHINGTON

Dixy Lee Ray
Governor

DEPARTMENT OF GAME
600 North Capitol Way/Olympia, Washington 98504

206/753-5700

May 15, 1979

Mr. Vic Armacost
U.S. Army Corps of Engineers
Walla Walla District Office
Building 602, City-County Airport
Walla Walla, WA 99362

Vic:

You have received information and reports on our joint program to plan for game bird stocking requirements of the Lower Snake Compensation Plan.

As you know, our analysis of actual costs of producing and releasing birds from our game farm shows that we cannot meet Federally authorized volume, time and dollar criteria.

There are also other features of this game bird phase of the program which might be questionable: Timing of acquisition; potential public relations problems; and, imposition of the Corps program on the Game Department's existing game bird releases in southeastern Washington.

Therefore, we ask that decisions on proceeding with this program be delayed. We sincerely believe that the public interest and wildlife will be better served if your staff and ours work out a more effective program to meet their needs.

Sincerely,

THE DEPARTMENT OF GAME

A handwritten signature in cursive script that reads "Gene".

Eugene Dzedzic, Chief
Habitat Management Division

ED:meg
cc:Wendell Oliver
Reade Brown
Jack Kirkendall

APPENDIX C
WORKSHOP INFORMATION

Page

1	Workshop Brochure
8	Workshop Questionnaire

LOWER SNAKE RIVER FISH AND WILDLIFE COMPENSATION PLAN

ANNOUNCING A SERIES OF PUBLIC WORKSHOPS

WHY ARE THE WORKSHOPS BEING HELD?

1. To keep all interested people informed of the current status of the Wildlife Compensation Program of the Lower Snake River Fish and Wildlife Compensation Plan.

2. To give local landowners a chance to come in and see if their land is in an area that would be suitable to include in the wildlife compensation program. We cannot over emphasize that lands can only be purchased from WILLING SELLERS at appraised fair market values. If a landowner does not want to sell, he can tell us and we will remove his land from further consideration as a potential site. No land can actually be acquired until follow-on reports have been prepared by the Corps during 1979. Attitudes of the public and landowners will be an important part of these reports.

WHAT IS THIS WILDLIFE COMPENSATION PROGRAM?

A willing seller-willing buyer land acquisition program to compensate for the wildlife losses caused by the four Lower Snake River Dams that cannot be mitigated by developments on project land. Lands to be acquired are as follows:

- 700 acres in easement or fee in narrow strips adjoining steelhead/rainbow trout fishing streams.
- 8,400 acres for upland game bird hunting (400 acres in fee and 8,000 acres in easement).
- 15,000 acres in easement for access to project lands primarily for chukar partridge hunting.

The 1979 cost for both acquisition and development is estimated to be about \$6 million.

WHO IS SPONSORING THESE PUBLIC WORKSHOPS?

Joint sponsors are the Walla Walla District, U. S. Army Corps of Engineers, and the Washington Department of Game. Open information and a chance to talk one-on-one or in small groups will be the format for these informal meetings. An informal background slide show will be followed by "information stations" which show areas we have considered for compensation sites.

FOR WHOM ARE THE WORKSHOPS BEING HELD?

For all interested persons including farmers, ranchers, hunters, fishermen, housewives, bankers, mechanics, butchers, bakers, candlestick makers, etc. If you have an interest in hunting or fishing or the land resources which support the wildlife for these activities, come in for some coffee, information and constructive exchange of ideas.

WHEN AND WHERE?

1. Monday, 7 May 1979, at Colfax, Washington
2 - 9 p.m.
Whitman County Public Service Building Auditorium
N. 310 Main Street
2. Tuesday, 8 May 1979, at Asotin, Washington
2 - 9 p.m.
Lions Hall
118 Second Street
3. Wednesday, 9 May 1979, at Walla Walla, Washington
2 - 9 p.m.
Evergreen Fieldhouse
Corner of Roosevelt and Evergreen Streets
4. Thursday, 10 May 1979, at Pomeroy, Washington
2 - 9 p.m.
Garfield County Courthouse - Court Room

REMEMBER:

1. This land acquisition program is being carried out entirely on a willing seller-willing buyer basis as a supplement to the wildlife developments now on-going on Corps-owned land. Willing seller means no one can force you to sell; willing buyer means the Government can pay only the appraised fair market value for the property right.
2. For some of the land, no sales can be made without the approval of local county government officials, and all potential sales will be coordinated with local officials.
3. Your voice can have an important impact, so you owe it to yourself to stay informed and to let us know your feelings.

BACKGROUND INFORMATION:

Construction of the four dams (Ice Harbor, Lower Monumental, Little Goose and Lower Granite) on the lower Snake River has produced many benefits for people of the Northwest and the Nation. These include low-cost electricity, flatwater recreation, navigation and all of the accompanying multiplier economic benefits. However, these benefits were achieved at some cost to the environment.

Strips of vegetation which formerly lined the Snake River channel were lost when the reservoirs were filled. In an arid climate, these streamside strips of high brush, trees and orchards mixed with grasslands play an especially important role during various times in the life cycles of wildlife. These include deer, cottontails, pheasants, chukars, huns, quail, doves, ducks, Canada geese and fur animals, as well as animals and birds that are not hunted.

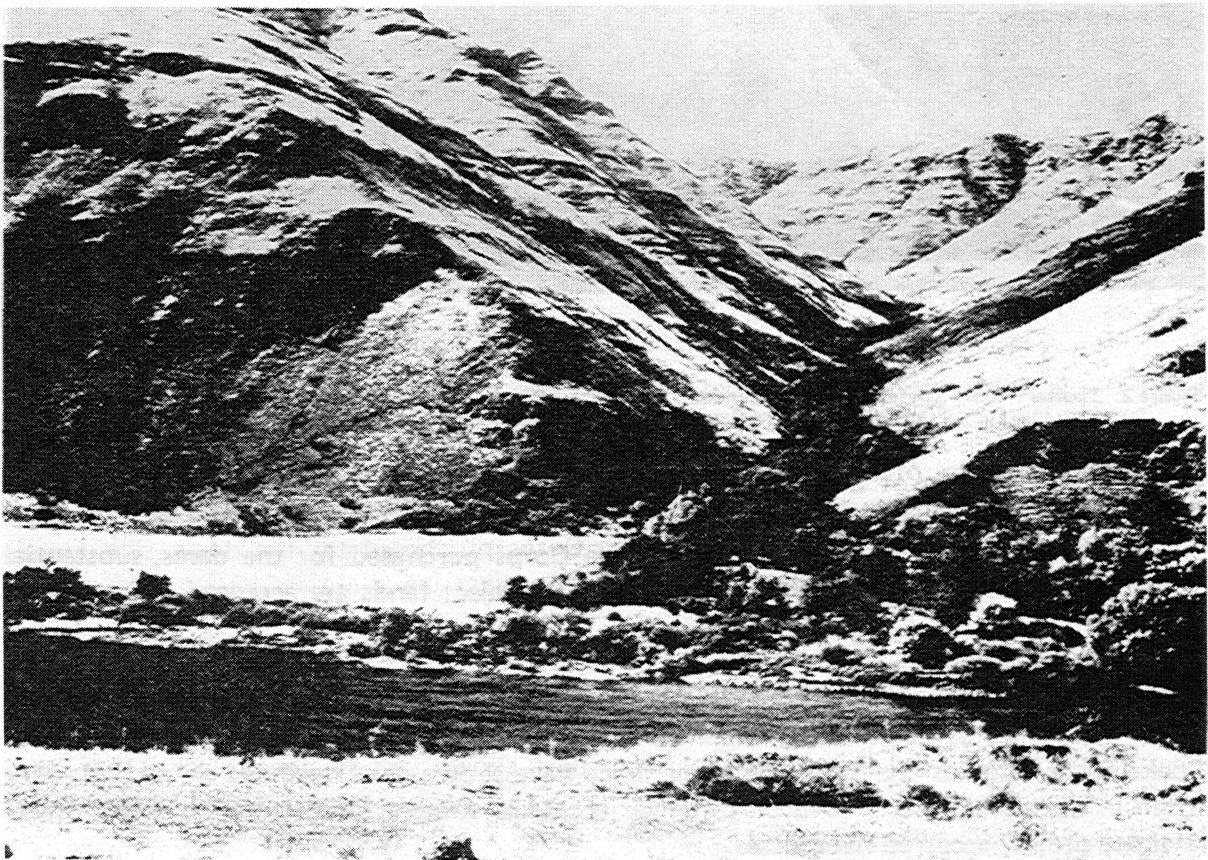


Figure 1. Typical "before" stretch of the Snake River in the upper end of the project area.

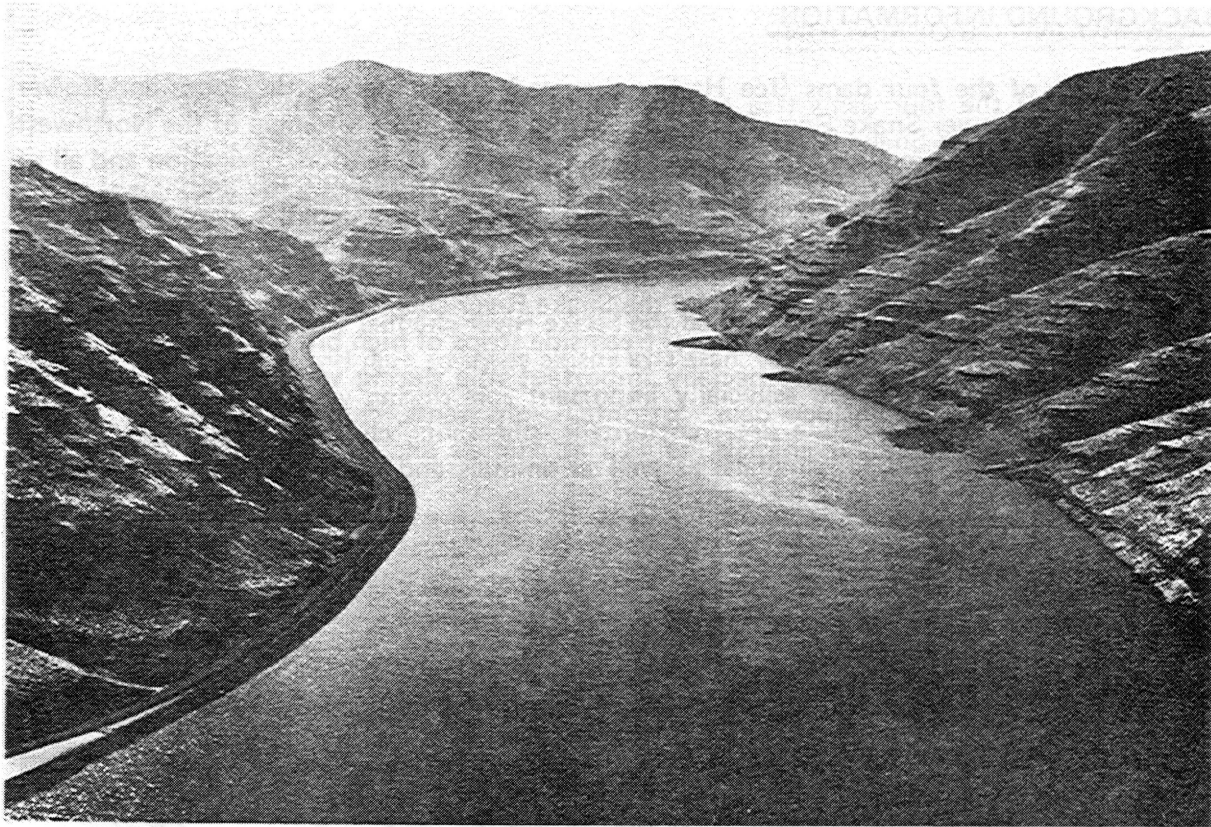


Figure 2. Typical "after" stretch of the impounded Lower Snake River. Note the location of railroad riprap embankment which makes wildlife access to the reservoir difficult or impossible.

While exact numbers of these animals before construction of the dams were not known, enough data were available to make fairly accurate estimates. Even with the best revegetation and development of the lands which the Corps purchased for the dams, substantial wildlife losses will continue unless additional off-project lands are acquired and managed for wildlife.

In addition, while presenting opportunities for warm-water fishing, the dams have removed about 140 miles of outstanding smallmouth bass and steelhead fishing on the free-flowing Snake River. Studies and fisherman experience have shown that steelhead do not bite very often in the slack water. Provision of angler access to streams in the project vicinity would mitigate project incurred river losses.

In 1958, an amendment to the Fish and Wildlife Coordination Act was passed which required all Federal water development agencies to examine the impacts of their projects on fish and wildlife. At first, the U. S. Fish and Wildlife Service, in cooperation with the Washington Department of Game, prepared separate impact reports for each of the dams. It was found that this would not adequately cover the real losses to the fishery and wildlife resources—losses which were becoming more clearly understood as the first dams began operation.

So, in 1966, the Corps asked the Fish and Wildlife Service to prepare a report which covered the effects of all four dams. This final report was submitted to the Corps in November of 1972. The Corps initiated an environmental impact statement, had the report checked by consultants and started preparation of its own report.

A series of four public meetings were held in May and July 1973. Results of these meetings indicated general support for the fish hatcheries but a mixed reaction to the Wildlife Compensation Program. Hunting and recreational groups generally supported the program but many local landowners were opposed. The Corps noted this opposition and amended the program in certain significant areas. Outside agency review and environmental impact statement preparation continued in 1974 and 1975. The Corps' final plan entitled, "Special Report Lower Snake River Fish and Wildlife Compensation Plan," was completed in 1975. It was authorized by the 1976 Water Resources Development Act and first funding was made available by October 1, 1977. This Act limits land acquisition for the fisherman access and wildlife lands to a willing buyer-willing seiler basis.

The first year's activities (Federal Fiscal Year 1978) centered around the search for suitable steelhead and salmon hatchery sites. McCall, Idaho, was selected first due to the critically low levels of the summer chinook fish returns—the species it will rear. Final design of this hatchery was completed in July 1978 and a construction contract awarded in November 1978. On the wildlife side, a contract was awarded to the Washington Department of Game to develop criteria for the wildlife compensation lands and then to identify areas which would fit these criteria. Concepts which have evolved from this contract are shown in Figures 3 through 5.

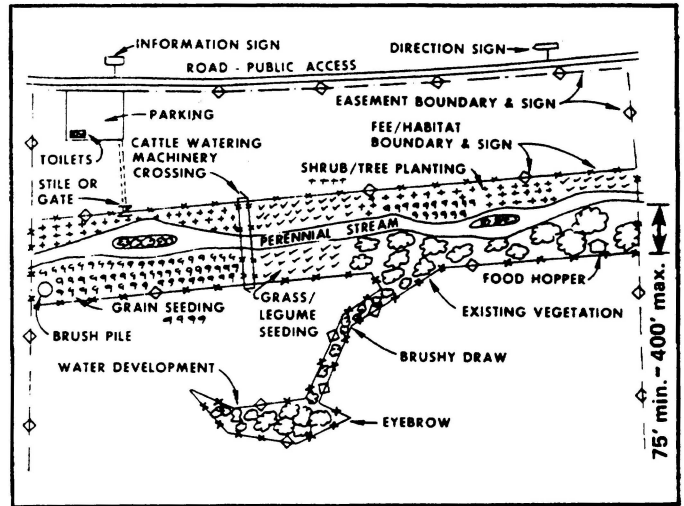


Fig. 3 Conceptual Model for Upland Game Bird Lands

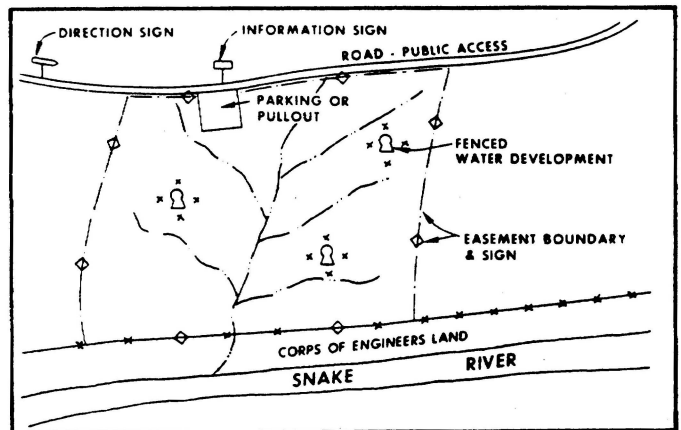


Fig. 4 Conceptual Model for Chukar - Partridge Lands

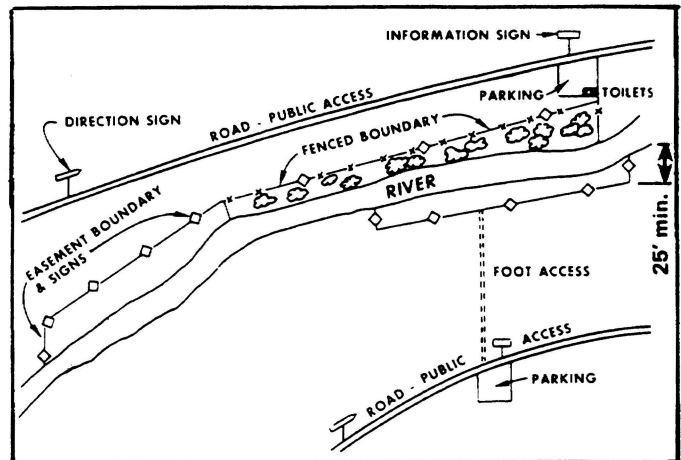


Fig. 5 Conceptual Model for Fisherman Access Lands

YOUR INPUT:

The many valid criticisms of the program put forth in the 1973 meetings and written correspondence since that time have had a definite effect on the wildlife program. How?

1. The total acres recommended for purchase by the U. S. Fish and Wildlife Service and the Washington Department of Game were reduced, based on a plan for more intensive development of Corps-owned project land. This on-project program is now underway.

2. Land management units must be purchased only in viable combination of hunter easements and habitat "core" areas. Also, all of the prospective sellers in such a unit must be in agreement to sell. We do not want to surround a nonparticipating landowner with hunting lands. In order to insure that proper standards were established for this, the work by the Game Department was initiated in 1978.

3. For the pheasant hunting lands (400 acres in fee plus 8,000 acres in easement), all sales must be concurred in by the local County Planning Commission.

IN ADDITION, the criteria provides for the following:

1. All hunting easement lands would stay in agricultural use. Most purchased lands would be brushland along streams, with potential for development to increase wildlife production. Very little productive farmland would be needed.

2. Potential purchases for all wildlife and fisherman access lands will be coordinated with local government officials.

3. Specific measures would be taken to protect the landowner who participates. These would include:

- a. Safety zones.
- b. Equipment and livestock crossings.
- c. Noxious weed control.
- d. Off-road vehicle control measures.
- e. Combination wildlife/livestock water development, where possible.
- f. Compliance with all federal, state and local laws and regulations concerning fire protection and crop damage protection.
- g. Adequate level of patrol and enforcement effort.
- h. Adequate level of operation and maintenance effort.

The hunting lands would be open to the public only during the established hunting seasons for upland game, usually September 1 through January 15.

THE TAX BASE should not be affected in Columbia, Garfield and Asotin counties because the Game Department pays property taxes on any property it owns. Since all easement lands will remain in their highest and best use (agriculture or grazing), no reduction in the assessed valuation is expected to occur on these lands. A minor tax loss could occur in Walla Walla and Whitman counties. But this would be less than \$1,000/year total and only if these counties retained their current option to collect one half of the game violation fines instead of property taxes on Game Department lands.

WHAT DOES IT MEAN if your land is in one of the areas designated as having potential for the program? It depends:

1. If you do not want to sell and let us know, no one will approach you.
2. If your land is in the middle of an area and you do not want hunters or fishermen near your land, your opposition could stop any sale of your neighbors' land, as well.
3. If you wish to participate and enough of your land would make the right configuration for a viable management unit, and with the County Planning Commission approval, you could receive money for fee or easement property transfer. So it depends to a great extent on YOU and YOUR local government officials.

THE AUTHORIZED LEGISLATION PROVIDES ONLY FOR A WILLING SELLER-WILLING BUYER BASIS!! AND UNDER THIS LAW THE USE OF CONDEMNATION FOR ANY OF THE LANDS DESCRIBED ABOVE IS NOT ALLOWED.

QUESTIONNAIRE

LOWER SNAKE RIVER WILDLIFE COMPENSATION PLAN

1. Name & Address (optional)

2. What is your general attitude regarding the Lower Snake River
Wildlife Compensation Plan?

Support _____ Neutral _____ Oppose _____

-- Why do you feel this way?

3. Do you own any land which you think might fit into the Wildlife
Compensation Program?

Yes _____ No _____ Not Sure _____

-- IF YES, would you consider yourself a potential willing seller?

Yes _____ No _____ Not Sure _____

-- Would you like to be contacted after we have authority to purchase
land (probably sometime in 1980)?

Yes _____ No _____ Not Sure _____

If you have checked yes, please insure you have filled in your name
and address on question 1.

-- How do you feel about your neighbors participating in this program?

Support _____ Neutral _____ Opposed _____

(Over Please)

4. Would you participate in the fishing and hunting opportunities which would occur under this program?

Yes _____

No _____

5. Do you have any suggestions for implementing this program in a better way? If yes, please explain - - -

THANK YOU FOR PARTICIPATING IN THIS PROGRAM.