

DESIGN MEMORANDUM FOR WILDLIFE HABITAT DEVELOPMENT

SUPPLEMENT NO. 1

Lower Snake River Project



**United States Army
Corps of Engineers**

... Serving the Army
... Serving the Nation

Walla Walla District

20 APRIL 1979

NPDEN-TE (24 Jul 79) 1st Ind

SUBJECT: Letter Supplement No. 1 for Buildings and Storage to Supplement No. 1,
"Design Memorandum for Wildlife Habitat Development, Lower Snake
River Project"

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870, Portland,
Oregon 97208 9 August 1979

TO: District Engineer, Walla Walla

The letter supplement for buildings and storage wildlife habitat development supported by design information in the related contract drawings and specifications is approved subject to the following comments:

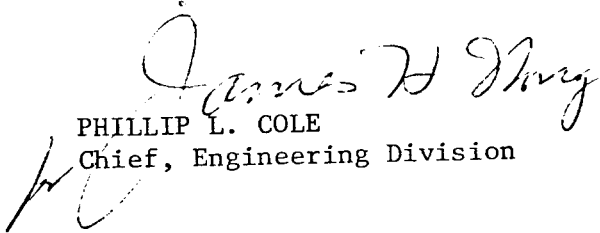
a. We understand from conversation with Mr. G. Eyestone that: (1) the contract mentioned in the first sentence in paragraph 1.02 will be for Washington State Department of Game operation and maintenance of the Lower Snake River Compensation area; (2) the first sentence in paragraph 1.02.a.(2) should indicate only one assistant wildlife recreation manager.

b. Although the estimate indicates a 7'-0" area fence, we assume a 6'-0" fence is intended as shown in the contract plans and specifications.

c. The building finish and color should be carefully considered for visual site compatibility.

FOR THE DIVISION ENGINEER:

1 Incl
wd 14 cys


PHILLIP L. COLE
Chief, Engineering Division



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS

BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-DB

24 July 1979

SUBJECT: Letter Supplement No. 1 for Buildings and Storage to Supplement No. 1, "Design Memorandum for Wildlife Habitat Development, Lower Snake River Project"

Division Engineer, North Pacific

1. Inclosed are copies 1 through 15 of subject DM Supplement.
2. Five copies of the proposed contract drawings and specifications for this facility were forwarded separately. The contract drawings are being revised to delete the battery room and to incorporate this space into the office. The battery storage room is no longer needed with the conversion of the irrigation pump units from diesel engines to electric power. The additional office space will be utilized by the evaluation team.
3. In view of the current schedule for contract advertisement on 31 July 1979, your early approval will be appreciated.

FOR THE DISTRICT ENGINEER:

1 Incl
as

W. E. Sivley
W. E. SIVLEY
Chief, Engineering Division

Design Memorandum for Wildlife Habitat Development
Supplement No. 1
Lower Snake River Project

Letter Supplement No. 1
Building and Storage

1.01. PURPOSE.

The purpose of this supplement memorandum is to delineate the design requirements and recommend construction of wildlife habitat development headquarters for the Lower Snake River Project.

1.02. DESIGN CONSIDERATIONS.

A contractual agreement between Washington State Department of Game and the U.S. Army Engineer District, Walla Walla, is planned. The initial contract is expected to be awarded 1 October 1979 and be renegotiated annually. Meetings and correspondence between the Department of Game and the Walla Walla District have resulted in several mutually acceptable design considerations listed below:

a. Personnel.

(1) Routine operation and maintenance of the Lower Snake River Compensation area will be accomplished through the use of a temporary work force employed and supervised by a permanent staff of State personnel.

(2) The four permanent personnel will include the project leader, assistant wildlife recreation managers, shop mechanic, and clerical help. The approximately five to ten temporary appointments

will be seasonal from April to September and include those personnel employed to farm, irrigate, and repair the various components and devices developed within the on-project wildlife compensation area.

b. Structures. An office, shop area, and equipment yard will be made available to the Contractor by the Federal Government. The following minimum areas are required for these facilities:

40,000 sq. ft. fenced area with buildings inside
250 sq. ft. office space with restroom, heated
1,000 sq. ft. vehicle maintenance shop, heated
150 sq. ft. flammable storage
125 sq. ft. seed storage, rodent-proof
2,250 sq. ft. vehicle storage shed, may be open-front.

Several alternatives were considered for providing these facilities.

(1) The old, resident-engineer construction office at Ice Harbor Lock and Dam was inspected for rehabilitation feasibility. More office area than shop was available, and major remodeling was necessary. After remodeling, the shop area would have been barely sufficient. The roof needs replacement, the heating system needs replacement, and the electrical system needs to be rewired with grounding to meet present codes. This site does not have the necessary area for a fenced equipment yard, and the nearest yard location would require construction of an access road and would result in a less efficient facility.

(2) Presently visitors use the old construction office as an overlook to view the entire Ice Harbor Project. Often this is a "visitors only" stop at the project. We do not feel that the Corps of Engineers' image would be enhanced if a visitor's first, and maybe only,

contact at the project was with someone other than a representative of the Corps. The Washington Department of Game was also not happy with the prospect of so much visitor attention.

(3) Other available Government structures were inventoried, but none were found suitable for a habitat development headquarters facility.

(4) Real Estate Division of the Walla Walla District Corps of Engineers was asked to perform a search for suitable facilities for purchase off-project. The major portion of the wildlife habitat areas is being developed on the Ice Harbor and Lower Monumental pools, so the above facilities are preferred to be located in the Pasco area, although facilities in the Dayton area were considered. No suitable sites at reasonable costs were available.

(5) Walla Walla District Corps of Engineers reviewed on-project sites in the Ice Harbor-Lower Monumental areas for a suitable facility. The old construction storage yard on the left abutment of Ice Harbor Lock and Dam appeared favorable for several reasons:

(a) The required square footage of security area is available and because it had been used as a storage yard previously, the construction yard required minimum clearing and earthwork.

(b) Public access to the area is limited.

(c) There is ready access to wildlife habitat lands.

(6) The office-shop, vehicle storage, material storage, and fenced equipment yard will be constructed by the Federal Government.

(7) A separate service station for fuel and a chemical storage building will not be provided. The Washington State Game Department will have access to Government fuel pumps at Ice Harbor Dam, Little Goose Dam, and the Granite-Goose Resources Management Office in Clarkston, Washington.

(8) Chemical storage for such items as herbicides will be provided in existing facilities at the Granite-Goose Resources Management Office in Clarkston, Washington, and at the Corps of Engineers' Sign Shop in Pasco, Washington.

(9) Early concepts of the wildlife mitigation headquarters facility included a battery recharging room in the office-shop building. At that time irrigation systems for the different habitat units were to be diesel engine powered. Subsequent energy studies have shown that electric-driven pumps would be more economical in the long term. Therefore, the irrigation systems are being changed to electric power except for one diesel powered pump unit at the Skookum site. Battery recharging for this one unit will be by portable trickle charger in the shop area, eliminating the need for a separate battery room. Instead, this space will be used as additional office space.

c. Equipment. Equipment, including small tools, farm machinery and accessories, trucks, barges, and boats, will be consigned to the State as Government-furnished property. The amount of equipment needed to perform the contractual work has determined the size of the facilities to be constructed.

1.03. CONSTRUCTION SCHEDULE.

The Lower Snake River Wildlife Mitigation headquarters facility construction contract is scheduled for advertisement 31 July 1979 and

bid opening 30 August 1979. This will tentatively allow an early spring 1980 occupancy by the mitigation contractor.

1.04. COST ANALYSIS.

The estimated cost for construction of the wildlife mitigation headquarters facility is \$177,000. Unit prices for items in the estimate are based on a breakdown of costs for materials and installation. All costs are estimated as if bids were obtained in April 1979 and reflect bid prices to mid-1980. See Table 1 for detailed cost estimate.

1.05. RECOMMENDATION.

It is recommended that the proposed wildlife mitigation headquarters facility be constructed at the left abutment site of Ice Harbor Lock and Dam.

Design Memorandum for Wildlife Habitat Development
Supplement No. 1
Lower Snake River Project

Letter Supplement No. 1
Building and Storage

Cost Analysis

Table 1

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
Site Preparation	Job			\$ 9,400
7' Chain Link Fence	L.F.	800	\$15.00	12,000
Office & Shop	S.F.	1,728	23.00	39,744
Equipment Storage	S.F.	2,800	5.65	15,820
Storage Building	S.F.	350	58.60	20,510
Loading Dock	Job			2,550
Mechanical	Job			5,550
Electrical & Heat	Job			25,610
Sewage Disposal	Job			5,000
Water Supply	Job			<u>11,000</u>
Sub Total				\$147,184
Contingencies 20%				<u>29,816</u>
TOTAL				\$177,000

NPDEN-TE (21 Dec 78) 5th Ind

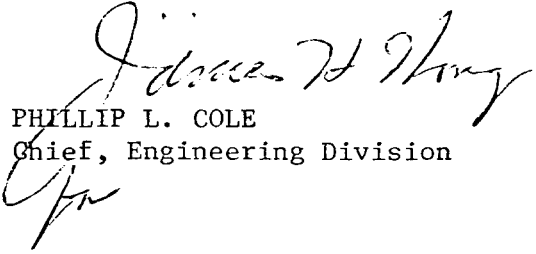
SUBJECT: Lower Snake River Project, Supplement No. 1 to Design Memorandum
for Wildlife Habitat Development

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870,
Portland, Oregon 97208 28 August 1979

TO: District Engineer, Walla Walla

We concur with your proposed plan of action for managing and monitoring
the subject Wildlife Habitat Development.

FOR THE DIVISION ENGINEER:


PHILLIP L. COLE
Chief, Engineering Division



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS

BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-PL

21 December 1978

SUBJECT: Lower Snake River Project, Supplement No. 1 to Design
Memorandum for Wildlife Habitat Development

Division Engineer, North Pacific

Fifteen copies of subject supplement are forwarded under separate
cover for review and approval.

FOR THE DISTRICT ENGINEER:

1 Incl fwd sep
as (15 cys)

A handwritten signature in cursive script, appearing to read "W. E. Sivley".

W. E. SIVLEY
Chief, Engineering Division

NPDEN-TE (21 Dec 78) 1st Ind
SUBJECT: Lower Snake River Project, Supplement No. 1 to Design
Memorandum for Wildlife Habitat Development

DA, North Pacific Division, Corps of Engineers, P.O. Box 2870,
Portland, Oregon 97208 30 January 1979

TO: District Engineer, Walla Walla

The subject supplement is well written on fish and wildlife matters, however, the justification for increasing the scope of work and the quantity of operation and maintenance equipment is inadequate. Approval is subject to your providing us a satisfactory response to the following comments and/or revising the supplement.

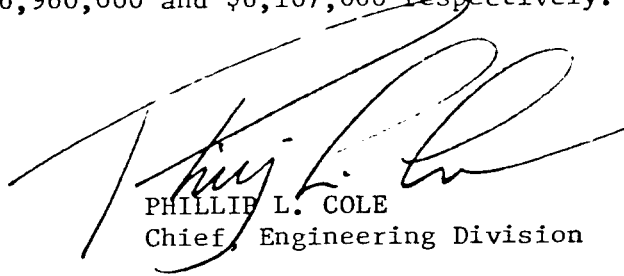
1. Include a discussion to show how the production level (man-days of hunting or other mitigation units) anticipated with this plan is related to the original on-project plan, the on-project and off-project plans and to the total production requirements. Any increases in the on-project production level shall be subtracted from the off-project mitigation requirements.
2. Provide justification for increases in scope of work as outlined in paragraphs 5.01.a., 5.01.d. and 5.01.g. Increasing the number of nesting platforms from 17 to 110, the planting acreage from 1,106 to 1,360, the irrigation acreage from 917 to 1,036 and adding 32,000 feet of wooden rail fencing increases the cost of the project by approximately \$685,000. If indeed a fence is even necessary, it would seem that a barbed wire fence would serve the same intent.
3. There is no indication of what the Washington Department of Game or the U. S. Fish and Wildlife think of this plan. It is essential that this plan be coordinated with them and that they support any such work we undertake.
4. Compliance with NEPA and Section 404 of the Clean Water Act should be addressed.
5. Note that if any off-project access is required, appropriate authority must be obtained to acquire necessary land rights.
6. The six hundred thousand dollars per year for operating and maintaining these sites and the two hundred thousand for evaluation is excessive and unreasonable. Question the number of pick-ups, trucks, trailers, boats, etc., which would contribute to the high O&M costs. A comparison should be made with the costs paid by the state for operating their wildlife areas. The costs for the proposed sites should not exceed the average per acre for other state wildlife projects.

SUBJECT: Lower Snake River Project, Supplement No. 1 to Design
Memorandum for Wildlife Habitat Development

7. An agreement should be made with the state that the equipment we purchase for O&M will only be used on these particular projects. Provisions should be made for monitoring to insure that the agreement is upheld.
8. In accordance with paragraph 1.h. of ER 1110-2-1150, Appendix B, the supplement should contain a comparison of cost estimates with the latest approved cost estimate. This would be the PB-3 effective 1 October 1978. The supplement should also contain an explanation of any significant changes.
9. Any work done under the Lower Granite Project will need to be completed in FY 79, as this is the last year of funding for both the main project and the additional units project. FY 81 is the last year of funding at the other three projects.
10. Clarify the following discrepancies or areas of question:
 - a. Page 1-1. The references shown in paragraph 1.02 are in error. ER 1105-2-149 should be ER 1105-2-129. Also, ER 1165-2-104 is obsolete and was superseded by other ER's some years ago.
 - b. Table 2 shows windmill irrigation at Charbonneau and flood irrigation at Wilma while Table 1 indicates that there will not be any plants requiring irrigation at these sites.
 - c. Paragraph 2, page 3-11 refers to farming and grazing agreements and leasee, indicating they are covered in Table 2. There is no such coverage in the table, nor depiction on any of the plates. These areas should be designated, since they apparently are a part of and have bearing on the unit involved.
 - d. Paragraph 3.01 shows 189 acres in dry land and 917 acres irrigated under the original DM concept. The subject supplement, in paragraph 3.02 shows 334 and 1,026 acres, respectively, for these uses. However, on page 5-13, paragraph d, it states dry land acres were increased from 109 to 334 and irrigated acres from 917 to 1,036, apparent errors in the acreages between the cited paragraphs.
 - e. The total estimated cost for this work is uncertain. Paragraph 5.01, page 5-1 and table 13 show a cost estimate of \$7,060,000 while table 10 and table 12 show estimates of \$6,960,000 and \$6,107,000 respectively.

FOR THE DIVISION ENGINEER:

1 Incl
wd 2 cys


PHILLIP L. COLE
Chief, Engineering Division

NPWEN-PL (21 Dec 78) 2d Ind
SUBJECT: Lower Snake River Project, Supplement No. 1 to Design Memorandum
for Wildlife Habitat Development

DA, Walla Walla District, Corps of Engineers, Bldg. 602, City-County
Airport, Walla Walla, WA 99362 20 April 1979

TO: Division Engineer, North Pacific

1. Inclosed for your review and approval are 15 copies of the "Design Memorandum for Wildlife Habitat Development, Supplement No. 1, Lower Snake River Project."
2. Answers to Division questions in 1st Ind, dated 30 Jan 79, above subject, are incorporated into the new text presented in this revised supplement dated 20 April 1979. The location or section where district responses can be found to Division questions is as follows (on a question-by-question basis):
1 - 5.06; 2 - 5.03 a, d, and g; 3 - 1.05; 4 - 1.02; 5 - 1.02; 6 - 5.03 n;
7 - 5.03 n; and 8 - 5.03 and Table 14. All the discrepancies and corrections indicated under question 10 were examined and corrected during revision.
3. The limited amount of time left to fund Lower Granite and the other three projects is recognized and understood; but development in Lower Granite and the other projects should be completed in FY-79 and FY-81, respectively.

FOR THE DISTRICT ENGINEER:

1 Incl (3 cys)
12 cys fwd sep

W. E. Sivley
W. E. SIVLEY
Chief, Engineering Division

84

NPDEN-TE (21 Dec 78) 3rd Ind
SUBJECT: Lower Snake River Project, Supplement No. 1 to Design Memorandum
for Wildlife Habitat Development

DA, North Pacific Division, Corps of Engineers, P. O. Box 2870,
Portland, Oregon 97208 15 May 1979

TO: District Engineer, Walla Walla

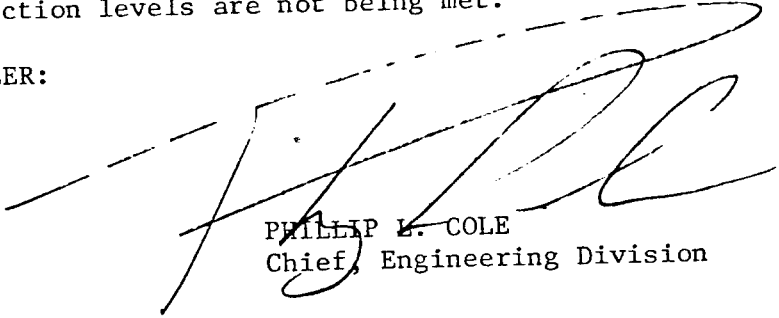
Supplement No. 1 to Design Memorandum for Wildlife Habitat Development is
approved subject to the following:

a. The large annual O&M contract cost (approx. \$1M) will require close
monitoring to evaluate the benefits of our mitigation effort. Because of
its unique and precedent setting nature, we desire to maintain a close
overview of this program. Accordingly, it is requested that this office
be informed by 2 July 1979 who will be the Contracting Officers Representative
and what monitoring procedures you propose to assure compliance with the
contract.

b. The contract between the State and the Corps should contain
(1) a method of measuring mitigation production and (2) a mechanism (clause
in the contract) which allows us to reduce the level of O&M funding in the
event anticipated production levels are not being met.

FOR THE DIVISION ENGINEER:

wd all incls



PHILLIP L. COLE
Chief, Engineering Division

NPWEN-PL (21 Dec 78) 4th Ind

SUBJECT: Lower Snake River Project, Supplement No. 1 to Design Memorandum
for Wildlife Habitat Development

DA, Walla Walla District, Corps of Engineers, Bldg. 602, City-County
Airport, Walla Walla, Washington 99362 2 July 1979

TO: Division Engineer, North Pacific

The following information is furnished in reply to your comments in 3rd Ind
dated 15 May 1979.

a. At present, members of the Engineering Division staff are, with the cooperation of Washington Department of Game personnel and Operations Division biologists, preparing a contract for operation and maintenance of the wildlife habitat lands under the assumption that that Department will be the managing agency. Preparation of the contract is being closely coordinated with Operations Division to assure that they are in agreement with the finished product. After the contract is awarded, Operations Division will be the administrating agency. The principal Contracting Officer's Representative will be Duane M. Downing, Chief, Operations Division. He will receive major technical and contract management support at the field level from his two Project Engineers and their Resource Management staffs. Paul Winborg and Jack Ardner will be the principal field representatives in the Ice Harbor-Lower Monumental areas. Bert Leonard and Jim Wolcott will be the principal field representatives in the Little Goose-Lower Granite areas. He will also receive major staff support at the District Office level from John McKern. These six Operations Division personnel are already well underway on an intensive refresher training program on contract administration. Duane Downing, Jack Ardner and Jim Wolcott have recently attended the OCE O&M Contracting Training Course. John McKern has recently attended the USCSC Basic Contracting Course. In addition, Paul Winborg, Bert Leonard, and John McKern are scheduled to attend the OCE course. We believe these planned assignments and training will give us a strong base for initial development and management of this important contract workload.

b. Compliance with the contract will be monitored by the COR as the official representative of the Corps. He will be responsible for the biological and physical aspects of the contract. The Project Engineers will be able to follow the activities of the contractor in the field as they pertain to their areas of jurisdiction and, through coordination with the COR, act as his representative to assure compliance. We also intend to write into the contract the right for the Reservoir Managers to inspect the conduct of the management practices. In addition, Engineering Division will periodically review the progress of the contract to assure that the developmental design is being followed and that the biological data necessary to determine success in achieving the desired level of mitigation is being obtained.

NPWEN-PL (21 Dec 78) 4th Ind 2 July 1979

SUBJECT: Lower Snake River Project, Supplement No. 1 to Design Memorandum
for Wildlife Habitat Development

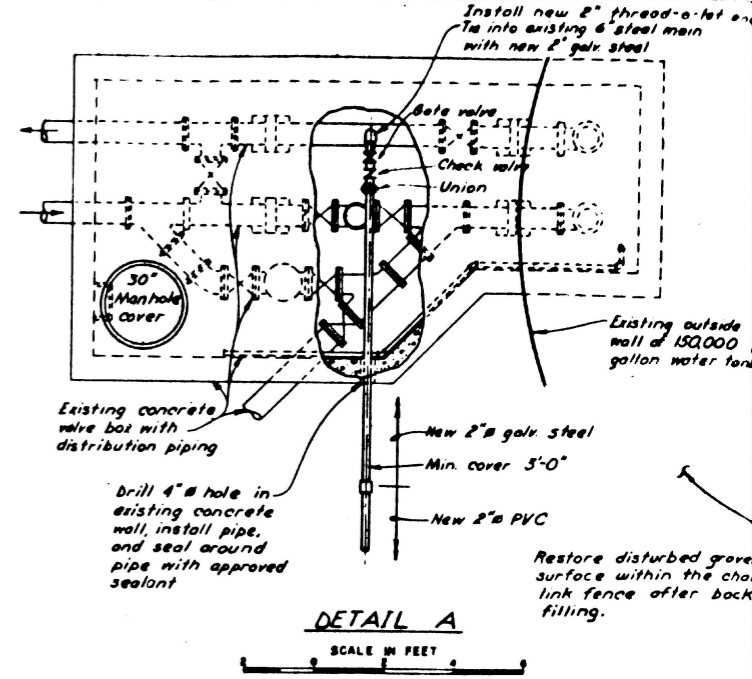
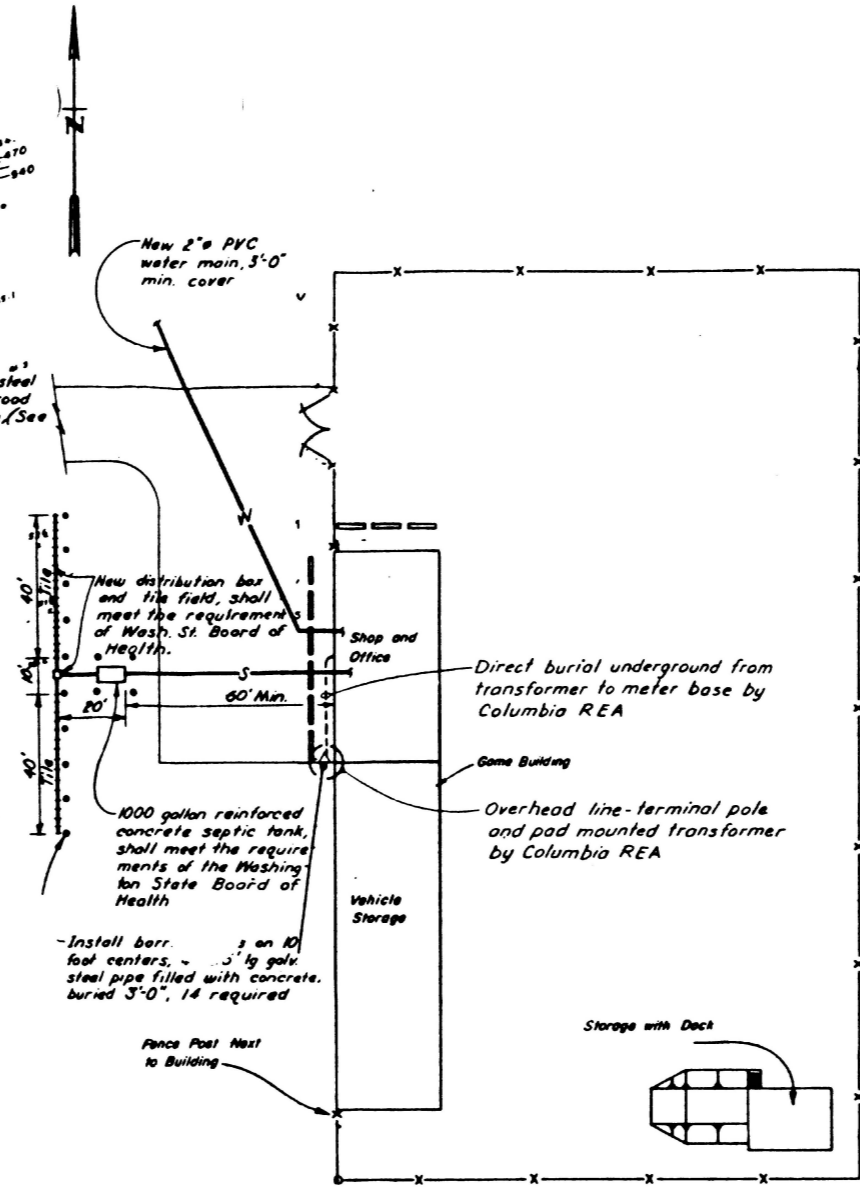
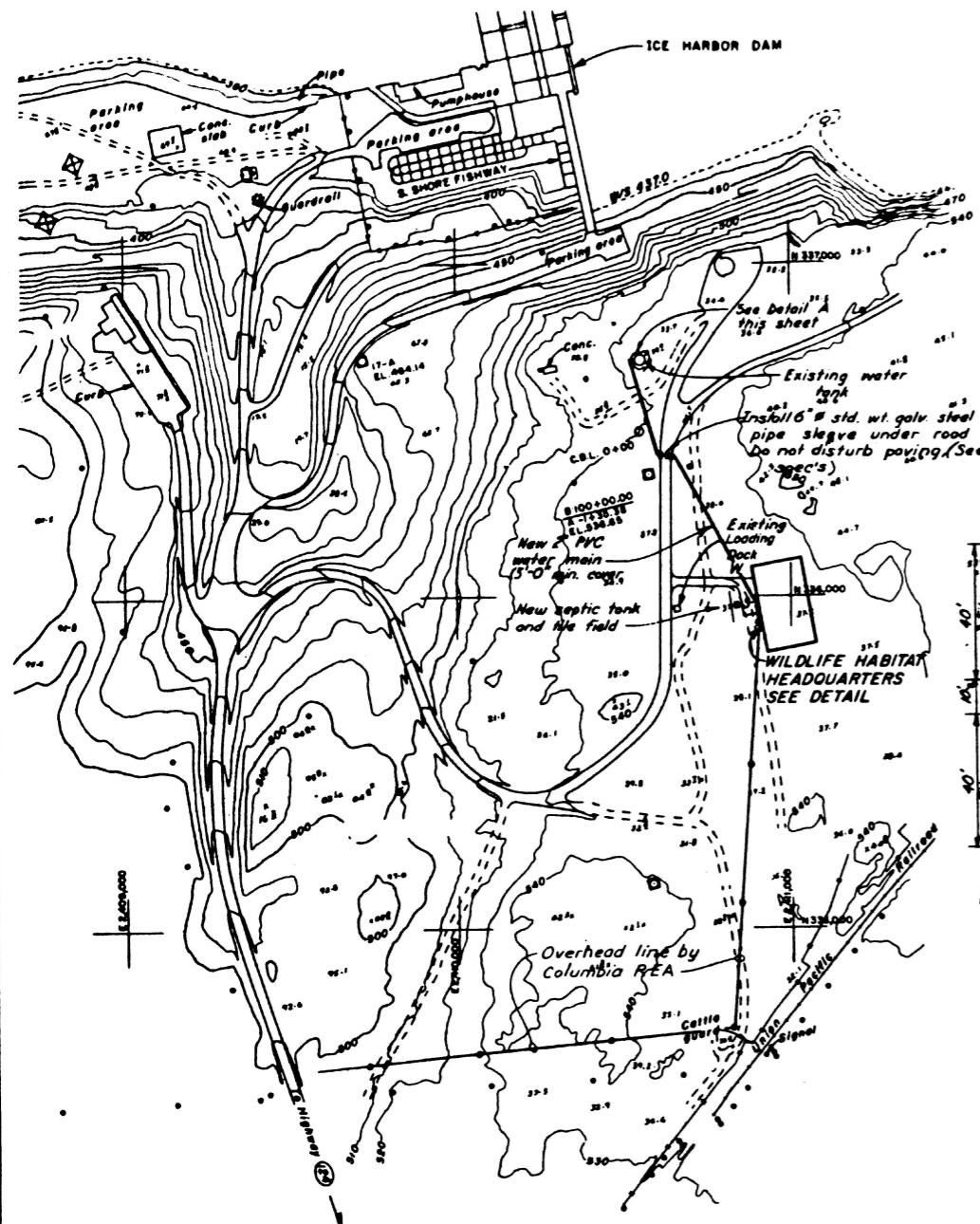
c. Every effort is being made in preparing the O&M contract so that the Corps will retain as tight control as possible over management of the area and funding for the management. Success of development and management to meet the mitigation goals will be measured basically in two ways. We are presently contracting for the second year of a predevelopment wildlife survey to give us a more factual baseline of present conditions. A similar survey is planned to be conducted at 5-year intervals until the year 2000 with which we can judge the success of replacing the desired habitat and animal numbers. Under the management contract the management staff will be charged with collecting sufficient data annually so that we can determine the level of success in replacing lost hunter-days and nonconsumptive use activities. Criteria for collecting these data will be clearly detailed in the contract.

d. The contract will contain provisions for adjusting the O&M funding level on an annual basis. The Department of Game will be required to submit their management plan and budget two years in advance. This plan will be accepted or revised based on a review of past evaluation data. If deficiencies are found or if mitigation is not being accomplished, corrective action will be taken, including contract modification, if required. It should be recognized, however, that, if the present opposition by local landowners continues, there may be a very real need in the future to increase the planned level of development and funding on project lands. If off-project lands cannot be acquired and if full compensation cannot be realized on project lands with the presently planned development, then we should expect to provide additional development on the project lands either until full compensation is attained or until maximum possible development is reached.

FOR THE DISTRICT ENGINEER:


FRANK W. PARSONS

Acting Chief, Engineering Division



WILDLIFE HABITAT HEADQUARTERS DETAIL
NOT TO SCALE

Notes:
1. All water and sewage piping shall be installed in order to meet all requirements of the state and local plumbing codes.

DESIGNED BY	DATE	DESCRIPTION
U. S. ARMY ENGINEER DISTRICT WALLA WALLA, WASHINGTON		
LOWER SNAKE RIVER FISH AND WILDLIFE MITIGATION WILDLIFE HABITAT HEADQUARTERS SITE PLAN		
DESIGNED BY <i>F.R.I.</i>	DATE	DESCRIPTION
DRAWN BY <i>D.S.</i>		
CHECKED BY <i>J.L.</i>		
APPROVED BY <i>[Signature]</i>		
SCALE AS SHOWN	ENV. NO.	DATE: 73 AUG 2
		FILE NO. SN-05-24/1

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A	The field layout and locations of the various irrigation sectors and habitat components within each of the nine management units identified for maximum development in the Lower Snake River Wildlife Compensation Area.	
B	Lists of the various grasses, forbs, trees, shrubs, and vines to be established in the selected management units along the Lower Snake River.	

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- D Contract DACW68-78-C-0023 for Evaluation of Wildlife Habitat Development on Government Project Lands.

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- 1 Proposed changes in the development of irrigated and non-irrigated acreages of the various wildlife management units located on Lower Snake River Project lands.
- 2 A list of project lands to be developed and managed as wildlife units under authority of the 1975 Lower Snake River Fish and Wildlife Compensation Plan.
- 3 The cover types and approximate acreages to be established under irrigated and non-irrigated conditions on the nine management units identified for maximum development in the Lower Snake River Wildlife Compensation Plan.
- 4 Schedule for the planting of grasses, legumes, forbs, trees, and shrubs on the ten wildlife management units identified as intensive development sites.
- 5 Estimated number of linear feet to be fenced in the Lower Snake River Wildlife Compensation Plan.
- 6 The estimated number of trees, shrubs and vines to be planted within the Lower Snake River Wildlife Compensation Plan.
- 7 The number of square feet required in the collecting apron to fill bird-watering cisterns with differing storage capacities under varying precipitation rates in dry climates.
- 8 The estimated number and approximate locations for the construction and installation of bird-watering cisterns and quail roosts in the Lower Snake River Wildlife Compensation Plan.

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9	The estimated number and approximate locations for the installation of nesting structures along the Lower Snake River.
10	Specifications for the construction and placement of nesting boxes on Lower Snake River Wildlife Compensation lands.
11	Summary cost estimate, Lower Snake Compensation, Wildlife Habitat Development.
12	Detailed cost estimate, Lower Snake Compensation, Wildlife Habitat Development.
13	Comparison of costs by project, Lower Snake Compensation Wildlife Habitat Development.
14	Condensed construction schedule.
15	The approximate percent of trees, shrubs, and vines to be planted as selected cover types in the Lower Snake River Wildlife Compensation area.
16	Grasses, legumes and forbs to be used on various wildlife management units within the Lower Snake River Wildlife Compensation area. Mean precipitation at Lewiston, Idaho; WaWaWai, Washington; and Kennewick, Washington, is 13.85, 18.74 and 7.49 inches, respectively.

PLATES

1	Locations Map	Appendix A
2	Legend	"
3	Big Flat	"
4	Lost Island	"
5	Hollenbeke	"
6	Skookum	"
7	Fifty-five Mile	"
8	Ridpath	"
9	New York Bar	"
10	Swift Bar	"
11	Swift Bar	"
12	Chief Timothy	"
13	Wilma	"

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14	Typical Irrigation	Appendix C
15	Typical Planting Plans and Sections	"
16	Big Flat and Lost Island Guzzler Complex	"
17	Hollenbeke, Fifty-five Mile, and Chief Timothy Guzzler Complex	"
18	Skookum and Swift Bar Guzzler Complex	"
19	Water Cistern Plan and Details	"
20	Roost and Rough Lumber Rail Fence Details	"