

APPENDIX G REAL ESTATE ASSESSMENT

TABLE OF CONTENTS

G

SECTION 1 PROJECT DESCRIPTION AND ACREAGE	1
1.1 PROJECT LOCATION	1
1.2 BACKGROUND INFORMATION FOR ORIGINAL CORPS OF ENGINEERS FLOOD CONTROL PROJECT.....	1
1.3 RECONNAISSANCE REPORT.....	1
1.4 GENERAL PROJECT DESCRIPTION.....	2
1.5 CONSTRUCTION PHASES	2
1.6 POOL RAISE, FISH AND WILDLIFE MITIGATION AND RESTORATION SITES	2
1.7 EXTENSION OF EXISTING UNDERGROUND DRAINAGE TUNNEL.....	3
1.8 INCLINOMETERS	3
1.9 GEOTECHNICAL WORK AREAS AND BUILDINGS ON COE OWNED LANDS	5
1.10 GEOTECHNICAL WORK AREA DISPOSAL SITE OUTSIDE COE OWNED LANDS	5
SECTION 2 NAVIGATIONAL SERVITUDE	7
SECTION 3 PUBLIC LAW 91-646 AND ACQUISITION	8
SECTION 4 ESTATES	9
4.1 GENERAL	9
4.2 STANDARD ESTATES	9
4.3 NON-STANDARD ESTATES.....	11
SECTION 5 REAL ESTATE COST ESTIMATE	13
SECTION 6 EXHIBIT A (REAL ESTATE DRAWINGS)	14
SECTION 7 EXHIBIT B (NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY ASSESSMENT)	15
SECTION 8 EXHIBIT C (DRAFT CERTIFICATION OF LANDS AND AUTHORIZATION FOR ENTRY)	17
SECTION 9 EXHIBIT D (DRAFT ATTORNEY'S CERTIFICATE OF AUTHORITY)	22

APPENDIX G — REAL ESTATE ASSESSMENT

TABLES

TABLE G-1-1. PHASE I PROJECT REAL ESTATE INTERESTS

TABLE G-1-2. PHASE II PROJECT REAL ESTATE INTERESTS

TABLE G-5-1. PHASE I COST ESTIMATE

TABLE G-5-2. PHASE II COST ESTIMATE

SECTION 1 PROJECT DESCRIPTION AND ACREAGE

1.1 PROJECT LOCATION

The proposed Howard Hanson Dam Additional Water Storage Project is located at and in the vicinity of the Corps of Engineers' existing Howard A. Hanson Dam (HHD) Project, on the Green River, King County, Washington, about 35 miles southeast of Seattle and 25 miles east of Tacoma. The proposed additional water storage project lies entirely within the City of Tacoma municipal watershed. The watershed is closed to the public and has controlled access. The City of Tacoma is the non-Federal sponsor for the HHD Additional Water Storage (AWS) Project.

1.2 BACKGROUND INFORMATION FOR ORIGINAL CORPS OF ENGINEERS FLOOD CONTROL PROJECT

King County was the proponent for the original flood control project. Construction of the dam was authorized by the Rivers and Harbors Act of 1950 (Public Laws 516, 81st Congress, 2nd Session, 17 May 1970). The guide taking line was established at or slightly above the 1,206-foot contour elevation. Since the Corps of Engineers (COE) flood control project was being constructed within the City of Tacoma watershed, the city proposed for the Government to acquire only minimum areas for construction and operation of the dam so the City could continue to protect its watershed from contamination. In 1957 the COE received authorization to acquire perpetual flowage easements to overflow, flood, and submerge the land lying below elevation 1,141 feet mean sea level (MSL) for construction, operation, and maintenance of the project in the reservoir area. The COE also acquired rights to occasionally overflow, flood, and submerge the land lying above elevation 1,141 feet (MSL) for operation and maintenance of the COE project. The COE acquired fee interest for the dam site. No mitigation lands were required or acquired for the original project.

1.3 RECONNAISSANCE REPORT

The reconnaissance report for the proposed federally assisted additional water storage project was approved on July 30, 1990. The original purpose of the project defined in the 1989 Reconnaissance Study changed significantly (project scope expanded). See Appendix H, Plan Formulation, for a description of changes in plan formulation strategy and policy changes that significantly affected the scope, process, and features of the additional water storage project.

1.4 GENERAL PROJECT DESCRIPTION

The HHD Additional Water Storage Project involves approximately 2,132.40 acres of land for initial construction of this federally assisted project. The HHD Additional Water Storage features consist of building a new intake tower with adjustable level fish passage facility, geotechnical work on the right abutment to the dam, building an addition onto the existing COE Administration Building, constructing a new maintenance building, a monitoring building, and a generator building, all on existing COE fee project lands. See Appendix B, Economic Evaluation, for cost sharing of these items. During the summer months the pool will be raised to elevation 1,177. The AWS also includes acquisition and development of mitigation and restoration sites for wildlife and fish habitat sites, including culvert at fish site VF-4; installation of two inclinometers; and extension of an existing underground drainage tunnel.

1.5 CONSTRUCTION PHASES

The current plan is for construction to take place in two phases. Phase I pool raise and mitigation sites are to contour elevation 1,167 feet. Phase I also includes geotechnical investigation and applicable work, modification of the existing administrative building, construction of the new buildings, development of some of the fish and wildlife mitigation sites, construction of a new intake tower, and installation of two inclinometers at the Charley Creek slide area, extension of an existing underground drainage tunnel, and three temporary staging areas. Phase II pool rise, fish and wildlife mitigation and restoration sites are to contour elevation 1,177 feet. See Appendix F, Environmental, Part One (Fish Mitigation and Restoration) and Part Two (Wildlife) for detailed descriptions of the fish and wildlife mitigation and restoration sites associated with each phase.

1.6 POOL RAISE, FISH AND WILDLIFE MITIGATION AND RESTORATION SITES

The land in the reservoir area is zoned forest, with the existing use as forest. The non-Federal sponsor is the fee owner of a majority of the land in the reservoir area needed for additional water storage. See Appendix H, Plan Formulation, for a detailed description of the pool raise. Some of the pool raise encompasses fee land owned by the COE, as well as Burlington Northern Railroad, CITYFOR, Washington State Department of Natural Resources, Plum Creek Timber Company, Washington State Aeronautical Division/Department of Transportation, and Weyerhaeuser Company. The District is recommending the non-Federal sponsor acquire a fee interest for lands it does not already own for the pool raise, except COE fee lands. The gross appraisal report for this project indicates the value of a permanent flowage easement is tantamount to the fee value, that is there is a 10 per cent difference between the permanent flowage easement and fee value of the taking. The non-Federal sponsor will not receive credit for any of the existing COE fee owned lands encompassed by the pool raise. To mitigate for the AWS storage project the non-Federal sponsor will need to acquire and or make available 1,607.73 acres for fish and

wildlife mitigation and restoration. The non-Federal sponsor can currently demonstrate fee ownership of 1,153.27 acres fee for fish and wildlife mitigation and restoration sites, and pool raise area. Approximately 34.21 acres are needed for permanent access to the fish and wildlife mitigation and restoration sites. Two temporary work areas are needed during construction of fish sites LMS-04 and LMS-01. Each temporary work area is 0.23 of an acre in size. A pipeline easement for a culvert may be needed at fish site VF-4. See Appendix F, Environmental, Part One (Fish Mitigation and Restoration) and Part Two (Wildlife) for detailed description of the mitigation and restoration plan. The lands needed downstream of the dam and outside the COE fee owned lands are a mix of residential, farm, and public lands. See Appendix F, Environmental, Part One (Fish Mitigation and Restoration) for detailed descriptions of the fish sites below the dam. See Table G-1-1 and Table G-1-2 respectively for pool raise, mitigation and restoration acres separated by Phase I and Phase II needs.

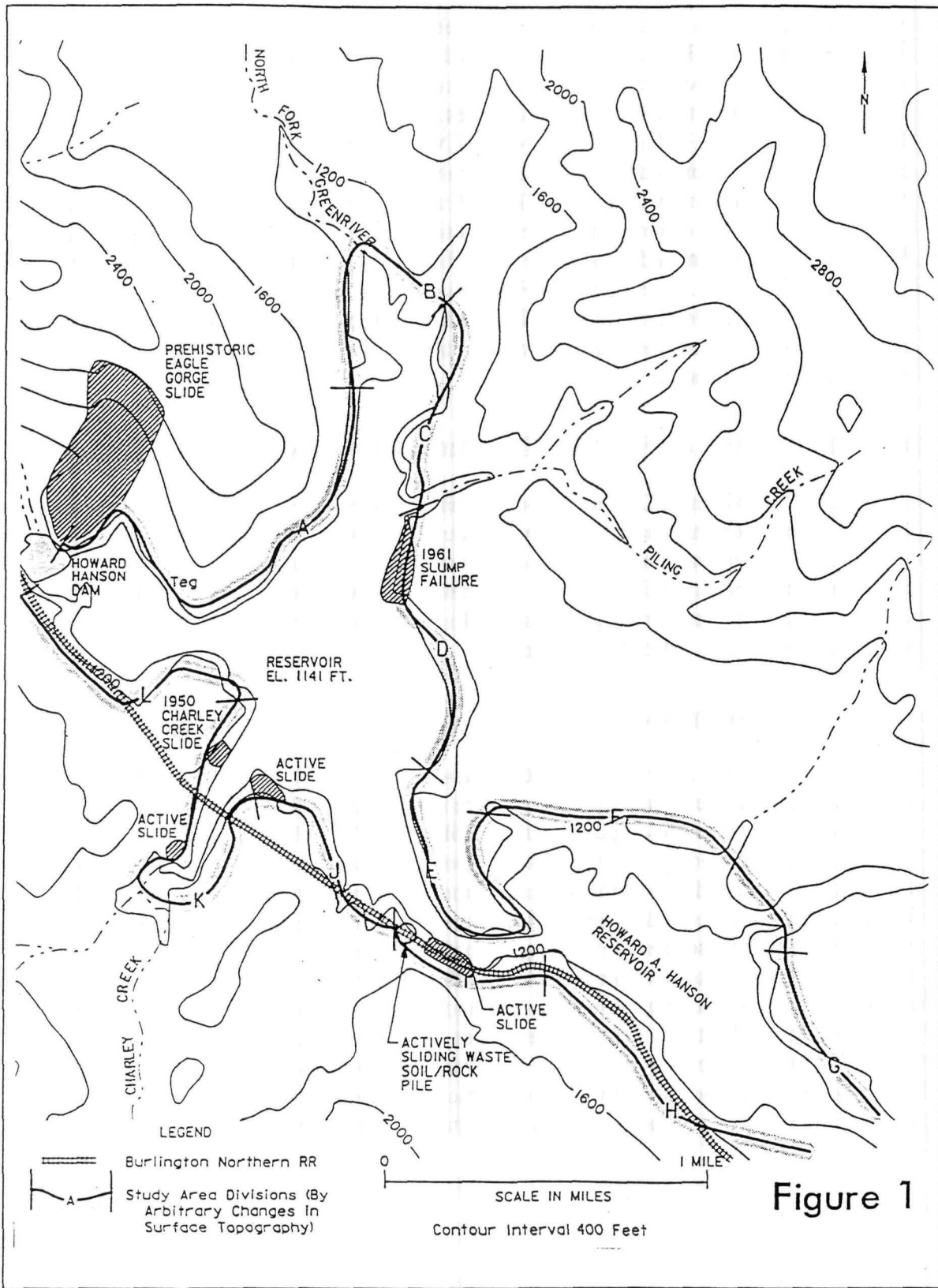
1.7 EXTENSION OF EXISTING UNDERGROUND DRAINAGE TUNNEL

Extension of an existing COE underground drainage tunnel may be necessary as a result of the AWS project during Phase I. The non-Federal sponsor already owns the land beyond the limits of the existing tunnel. The non-Federal sponsor will need to make available a perpetual easement estate similar to the easement estate acquired by the COE in 1968 for the existing underground drainage wells and drainage tunnel (see Paragraph 4.3, non-Standard Estate No. 4.3.1 of this report).

1.8 INCLINOMETERS

The placement of two inclinometers, 0.05 acre each will be within a 100-foot-diameter area within the Charlie Creek slide area. There is existing access to the Charlie Creek slide area that needs improving before initial drilling for the inclinometers. (See Figure 1 for approximate location.) The non-Federal sponsor already owns the land in this area. The exact location and size of the two inclinometer sites will be physically staked in the field during plans and specifics, and be based upon the best engineering judgment for the initial drilling and subsequent monitoring of the inclinometers in the least disruptive manner possible. Because of the small size of the land on which these inclinometers are located, and a lack of comparable sales data upon which to predicate a value, a nominal value is estimated for these sites. No severance damage is anticipated as these sites are located well within the City of Tacoma's land holdings for its watershed area. The non-Federal sponsor will need to certify for construction a perpetual easement estate similar to the inclinometer estate in Paragraph 4.3, non-Standard Estate No. 4.3.2.

APPENDIX G — REAL ESTATE ASSESSMENT



1.9 GEOTECHNICAL WORK AREAS AND BUILDINGS ON COE OWNED LANDS

Phase I geotechnical work areas (that is, a temporary disposal site, staging area, work area for grout work, and access to grout work area) fall within the COE fee lands for the dam and its operation. See Appendix E, Geotechnical Considerations, for a complete description of the proposed geotechnical activities. Phase I also includes building an addition onto the existing COE Administration Building, constructing a new maintenance building, monitoring building, and a generator building all on existing COE lands. The non-Federal sponsor will not receive credit for any of the COE fee owned lands needed for construction of the AWS project.

1.10 GEOTECHNICAL WORK AREA DISPOSAL SITE OUTSIDE COE OWNED LANDS

There is one additional geotechnical work disposal site needed that is outside COE fee lands. The non-Federal sponsor will need to provide a temporary disposal site easement for use of this site during Phase I. See Appendix E, Geotechnical Considerations, for a complete description of the proposed geotechnical activities.

1.11 See Table G-1-1 and G-1-2, respectively, for Phase I and Phase II listing of acreages and property interest of the lands, easements, and rights-of-way the non-Federal sponsor will need in support of the AWS project.

1.12 Real Estate LERRD Drawings: See Exhibit A, real estate drawings for the proposed project area.

1.13 Tables G-1-1 and G-1-2 below lists the real estate interests for the project.

APPENDIX G — REAL ESTATE ASSESSMENT

TABLE G-1-1. PHASE I PROJECT REAL ESTATE INTERESTS

Estate	Acreage	Estimated Value
Fee (Mitigation & Restoration Sites)	1,074.61	\$1,003,000
Fee (Pool Raise)	364.15	\$36,100
Permanent Road Easements	34.21	\$171,000
Pipeline Easement (VF-04)	0.80	\$720
Permanent Easement (two inclinometers @ Charley Creek Slide Area)	0.10	\$100
Underground Tunnel Extension Easement	0.69	\$100
Two Temporary Staging Areas (3-years)	.46	\$1,950
Temporary Disposal Easement (3 years)	9.32	\$2,700
TOTAL	1,484.34	\$1,215,670

TABLE G-1-2. PHASE II PROJECT REAL ESTATE INTERESTS

Estate	Acreage	Estimated Value
Fee (Mitigation and Restoration Sites)	533.12	\$1,848,900
Fee (Pool Raise)	114.94	12,100
TOTAL	648.06	\$1,861,000
GRAND TOTAL PHASE I & II	2,132.40	\$3,077,000(RD)

Currently there are seven outgrants in the vicinity of this project, three with the City of Tacoma. The others are: U.S. Department of Agriculture (Forest Service), State of Washington (Department of Natural Resources), State of Washington (Department of Fish and Wildlife), and Weyerhaeuser Company. All outgrants are revocable at will by the Department of the Army. Assessment of potential project impact of these and any new outgrants will be reassessed during project plans and specifications and before advertisement for construction.

The non-Federal sponsor is responsible for all "operation and maintenance costs" associated with the AWS project, including land maintenance activities. This includes the extra costs associated with operating and maintaining the new tower and fish passage, the higher pool, and the non-fish passage and wildlife restoration and mitigation features. The USACE will maintain control of the dam, and its function.

SECTION 2 NAVIGATIONAL SERVITUDE

Navigational servitude will not be exercised for this project. Regulatory Branch, Operations Division has a list of rivers considered navigable by the COE. The COE considers the Green River navigable from the Duwamish River to Tukwila, which is well outside the limits of the Howard Hanson Dam additional water storage area or fish and wildlife enhancement sites.

SECTION 3 PUBLIC LAW 91-646 AND ACQUISITION

3.1 The non-Federal sponsor has been advised of Public Law 91-646, as amended. The non-Federal sponsor has land acquisition experience and is fully capable of acquiring any lands necessary for the project. (See Exhibit B for the Assessment of the Local sponsor's Real Estate Acquisition Capability document.)

3.2 There are no families or businesses that will temporarily or permanently require displacement as a result of this project, so there is no resettlement or relocation activity anticipated. The land in the project area is not known or suspected to contain hazardous and/or toxic wastes. At this time the COE is not aware of any outstanding mineral interests that need to be acquired or subordinated in the project area. The COE is also not aware of any public opposition to this project. If there are any outstanding third party interests such as public roads, and highways, public utilities, railroads, and pipelines, the non-Federal sponsor must clear or subordinate any third party interests that could interfere with the project.

3.3 Before advertisement for construction, the non-Federal sponsor will make all lands, other than COE owned lands, necessary for the project available to the Federal Government by a Certification of Lands and Authorization For Entry (see Exhibit C) and Attorney's Certificate (Exhibit D). The non-Federal sponsor will provide the Corps, within 60 days after authorization of entry for construction, supporting LERRD credit documentation, including credit appraisals for lands made available for the project.

SECTION 4 ESTATES

4.1 GENERAL

This report is based on the requirement and assessment of fee value for the restoration and mitigation sites as prescribed by federal regulation. However, during the study investigation process and discussions with the non-Federal sponsor, it appears that some of the restoration and mitigation sites contained in this report may fall on state park or other public agency lands. The state or other public agencies may not be able to convey to the non-Federal sponsor a fee interest for the fish and wildlife mitigation and restoration sites. The non-Federal sponsor will try to acquire fee where possible; however, where it is not possible, the approved nonstandard estates presented in paragraph 4.3 will be used as the alternative to fee acquisition. The non-Federal sponsor is agreeable to acquiring a fee interest for the fish and wildlife enhancement sites where possible. The District will advise the non-Federal sponsor of this requirement again during the project implementation phase. For cases where fee acquisition may not be possible, that is, state park lands, the District will instruct the non-Federal sponsor to use the approved non-standard estates presented below.

The non-standard easement estate for the tunnel extension is based on an approved estate used by Seattle District, COE in September 1968, for the underground drainage tunnel construction for the original Howard Hanson Dam Flood Control Project.

The non-standard easement estate for the inclinometers is new. The inclinometer non-standard estate is similar to the “Utility and/or Pipeline Easement” with minor modifications (see underlined portion of text).

4.2 STANDARD ESTATES

The following standard estates apply to this project.

4.2.1 Fee Estate:

The fee simple title, (the land to be described), subject, however, to existing easements for public roads and highways, public utilities, railroad and pipelines.

4.2.2 Road Easement:

A perpetual and assignable easement and right-of-way in, on, over and across (the land to be described) for the location, construction, operation, maintenance, alteration and replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation,

structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B); subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

4.2.3 Pipeline Easement:

A perpetual and assignable easement and right-of-way in, on, over and across (the land to be described), for the location, construction, operation, maintenance, alteration, repair and patrol of an underground pipeline; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

4.2.4 Temporary Disposal Easement:

A temporary and assignable easement and right-of-way in, on, over, and across (the land to be described) for a period not to exceed three (3) years, beginning with the date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a disposal area, including the right to deposit fill, dredged material and waste material thereon, move, store, and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the Howard Hanson Dam Additional Water Storage Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures or obstacles, within the limits of the right-of-way; reserving, however, to the grantors, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

4.2.5. Temporary Work Area Easement:

A temporary and assignable easement and right-of-way in, on, over, and across (the land to be described) for a period not to exceed three (3) years beginning with the date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a work area, including the right to move, store, and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the Howard Hanson Dam Additional Water Storage Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures or obstacles, within the limits of the right-of-way; reserving, however, to the grantors, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired;

subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

4.3 NON-STANDARD ESTATES

The following non-standard estates apply to this project.

4.3.1 Drainage Wells and Underground Drainage Tunnel. A perpetual and assignable easement and right of way in, on, under, over and across the above (the land to be described) for the location, construction, operation, maintenance, alteration, and repair of drainage wells and an underground drainage tunnel; together with the right to trim, cut, fell, and remove therefrom, trees, underbrush, obstructions, and other vegetation, structures or obstacles within the limits of the right of way, which obstruct drilling of drainage wells; reserving, however, to the Grantor, its successors and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby granted; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines, and to reservations, exceptions and any other outstanding rights contained in or referred to in patents issued by the United States.

4.3.2 Inclinometer Easement: A perpetual and assignable easement and right of way in, on, over and across (the land to be described) for the location, construction, operation, maintenance, alteration, repair, and patrol, an inclinometer; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easements hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

4.3.3 Modifications For Environmental Restoration and Mitigation:

a. Easement for Channel Improvement and Riparian Enhancement -- UPLAND LOCATION: A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair and replace channel features, planting and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the establishment or introduction of vegetation and plantings; and any measures or modifications including placement of other materials, together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

b. Easement for Channel Improvement and Riparian Enhancement - SIDE CHANNEL LOCATION: A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair and replace channel features, plantings and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the removal or placement of gravels, cobbles or boulders, structures, open channels, pipes or other conveyances that redirect or recharge the flow to adjacent side channels or riparian areas; together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

c. Easement for Channel Improvement and Riparian Enhancement -- IN CHANNEL LOCATION and WETLAND LOCATIONS: A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain repair and replace channel features, plantings and any other improvements within the riparian/river corridor for channel and bank stabilization, fish and wildlife habitat improvements and other environmental benefits; including the removal or placement of gravels, cobbles or boulders, bank vegetation and plantings and any measures or modifications including the placement of other materials or structures in the bed or banks that modify, augment, direct or influence stream velocity or channel form; together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

SECTION 5 REAL ESTATE COST ESTIMATE

Table G-5-1 shows the real estate cost estimate for Phase I and Phase II. This cost includes an estimated value of the fair market value of the project lands, non-Federal sponsor's acquisitions costs (costs incidental; e.g., title, survey, appraisal costs, negotiations, recording fees, legal fees, etc.), and Federal review and assistance costs (e.g., providing non-Federal sponsor with LERRD requirements, review of acquisition and crediting appraisals, coordination meetings, review of right-of-way documents, legal support, crediting activities, etc.).

TABLE G-5-1. PHASE I COST ESTIMATE

Lands and Damages	\$1,216,000
Non-Federal Sponsor's Costs	120,000
Federal Review and Assistance Costs	<u>45,000</u>
Subtotal	\$1,381,000
Contingency 20%	<u>\$276,000</u>
TOTAL PHASE I	\$ 1,657,000

TABLE G-5-2. PHASE II COST ESTIMATE

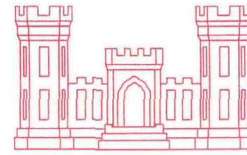
Lands and Damages	\$1,861,000
Non-Federal Sponsor's Costs	\$32,000
Federal Review and Assistance Costs	\$16,000
Subtotal	\$1,909,000
Contingency 20%	<u>\$382,000</u>
TOTAL PHASE II	\$2,291,000
GRAND TOTAL PHASE I & II	\$3,948,000

Exhibit A

REAL ESTATE DRAWINGS

Index, Legend, Sheets A through K

Seattle District USACE



Real Estate Division

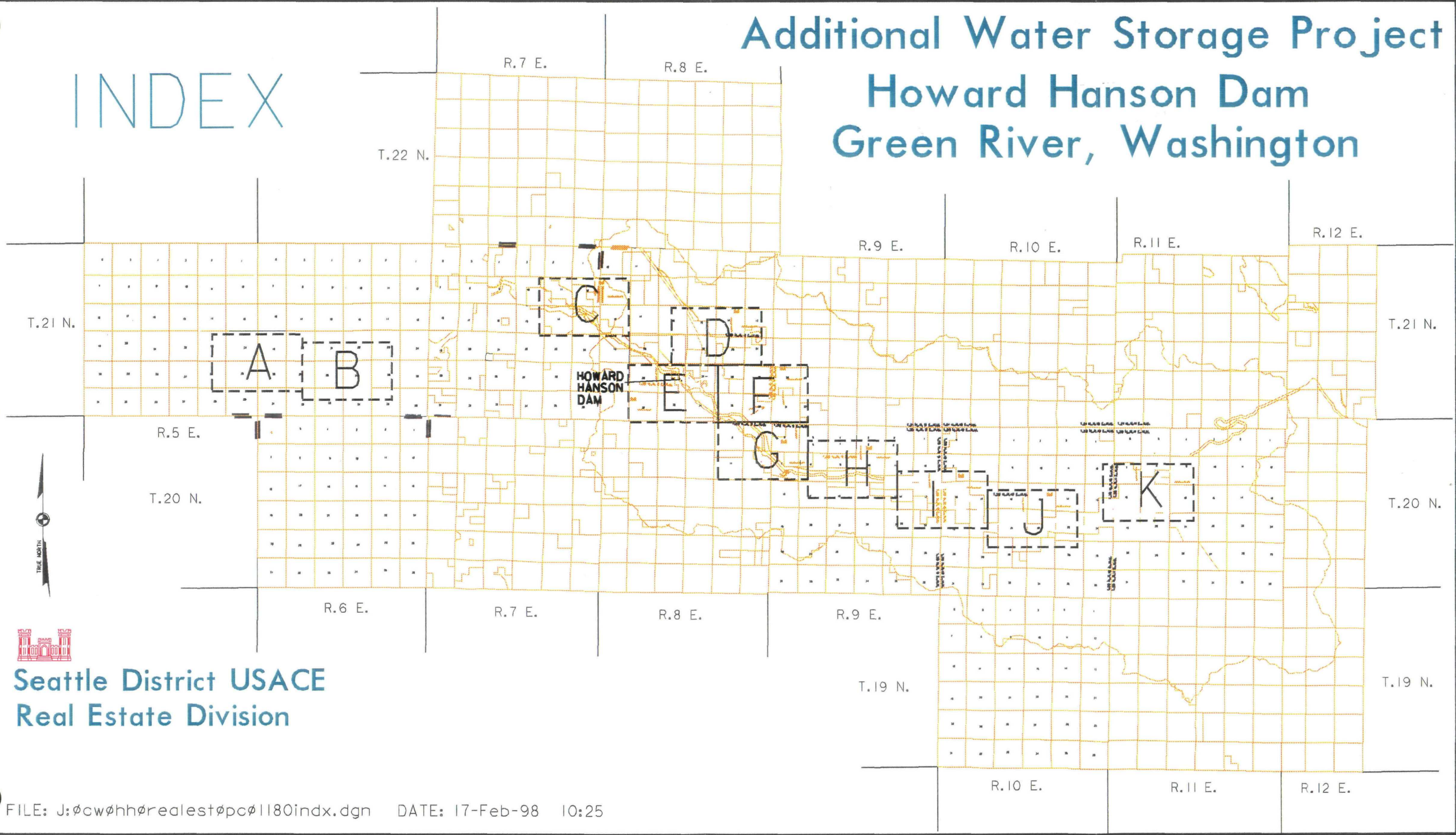
Additional Water Storage Project Howard Hanson Dam Green River , Washington

LEGEND

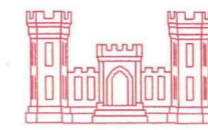
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	1141' Elevation		
	1177' Elevation		
	1147' Elevation		Section and Ownership Lines
	Wildlife Sites		D.N.R. RIVER AND STREAMS
	Wildlife Site Access Roads		D.N.R. ROAD SYSTEM
	Fish Sites		
	Fish Site Access Roads		Geotechnical Sites
	Forest Plan Areas		

INDEX

Additional Water Storage Project Howard Hanson Dam Green River, Washington




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Real Estate Division
Additional Water Storage Project
Howard Hanson Dam
Green River, Washington

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TRUE NORTH

T. 21 N., R. 5 E., W.M.

T. 21 N., R. 6 E., W.M.

24

19

PHASE 2

LVF-04
ACCESS ROAD
1.58 ACRES

LVF-04
FISH SITE
23.22 ACRES
PHASE 2

PHASE 2
LVF-03
FISH SITE
19.22 ACRES

PHASE 2
LVF-04
ACCESS ROAD
0.22 ACRES

LVF-04
FISH SITE
53.34 ACRES
PHASE 2

25

30

29

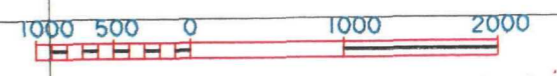
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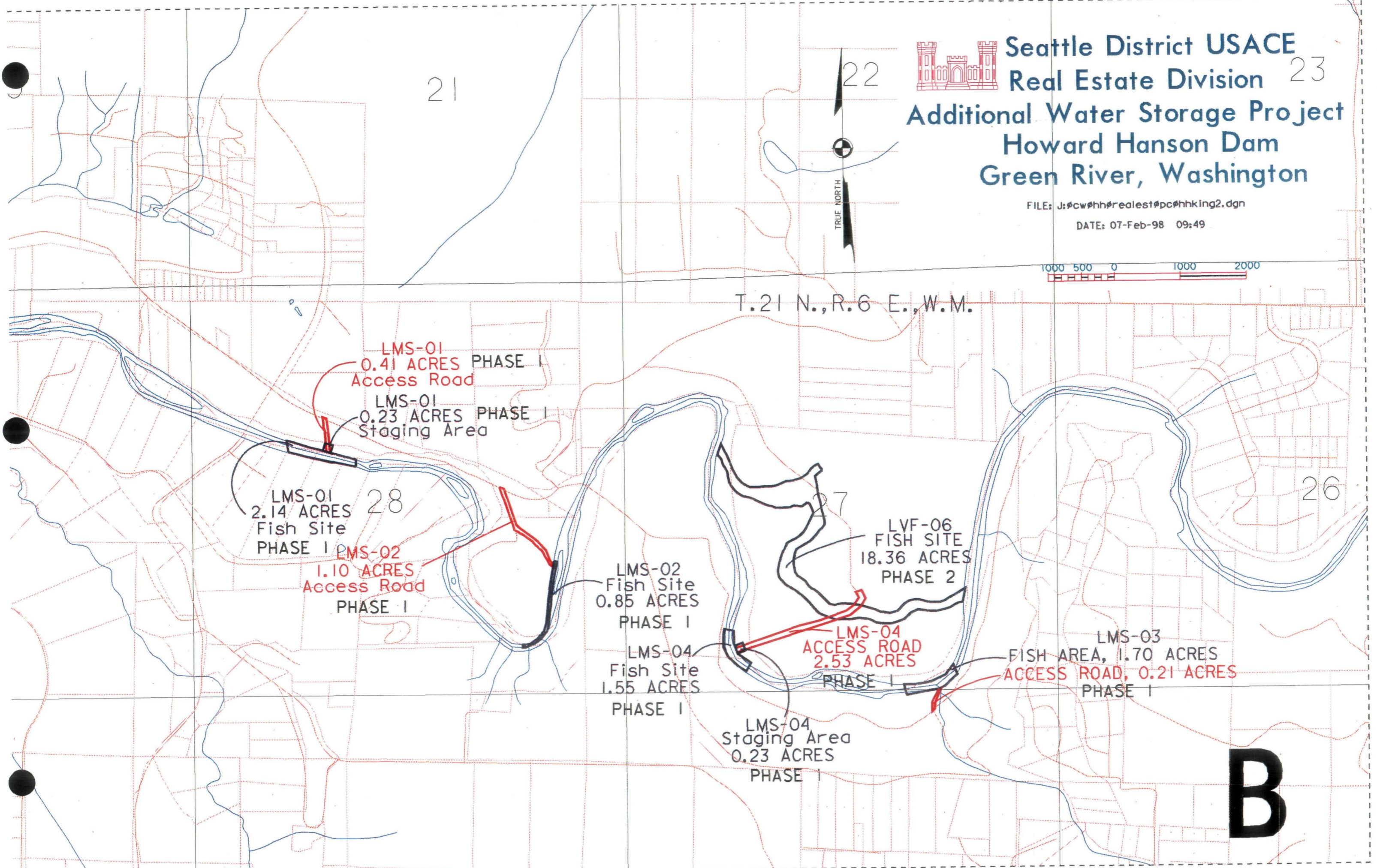
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 Howard Hanson Dam
 Green River, Washington

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T.21 N., R.6 E., W.M.



LMS-01
 0.41 ACRES PHASE I
 Access Road

LMS-01
 0.23 ACRES PHASE I
 Staging Area

LMS-01
 2.14 ACRES
 Fish Site
 PHASE I

LMS-02
 1.10 ACRES
 Access Road
 PHASE I

LMS-02
 Fish Site
 0.85 ACRES
 PHASE I

LMS-04
 Fish Site
 1.55 ACRES
 PHASE I

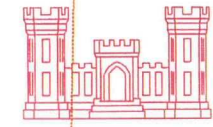
LMS-04
 Staging Area
 0.23 ACRES
 PHASE I

LMS-04
 ACCESS ROAD
 2.53 ACRES
 PHASE I

LVF-06
 FISH SITE
 18.36 ACRES
 PHASE 2

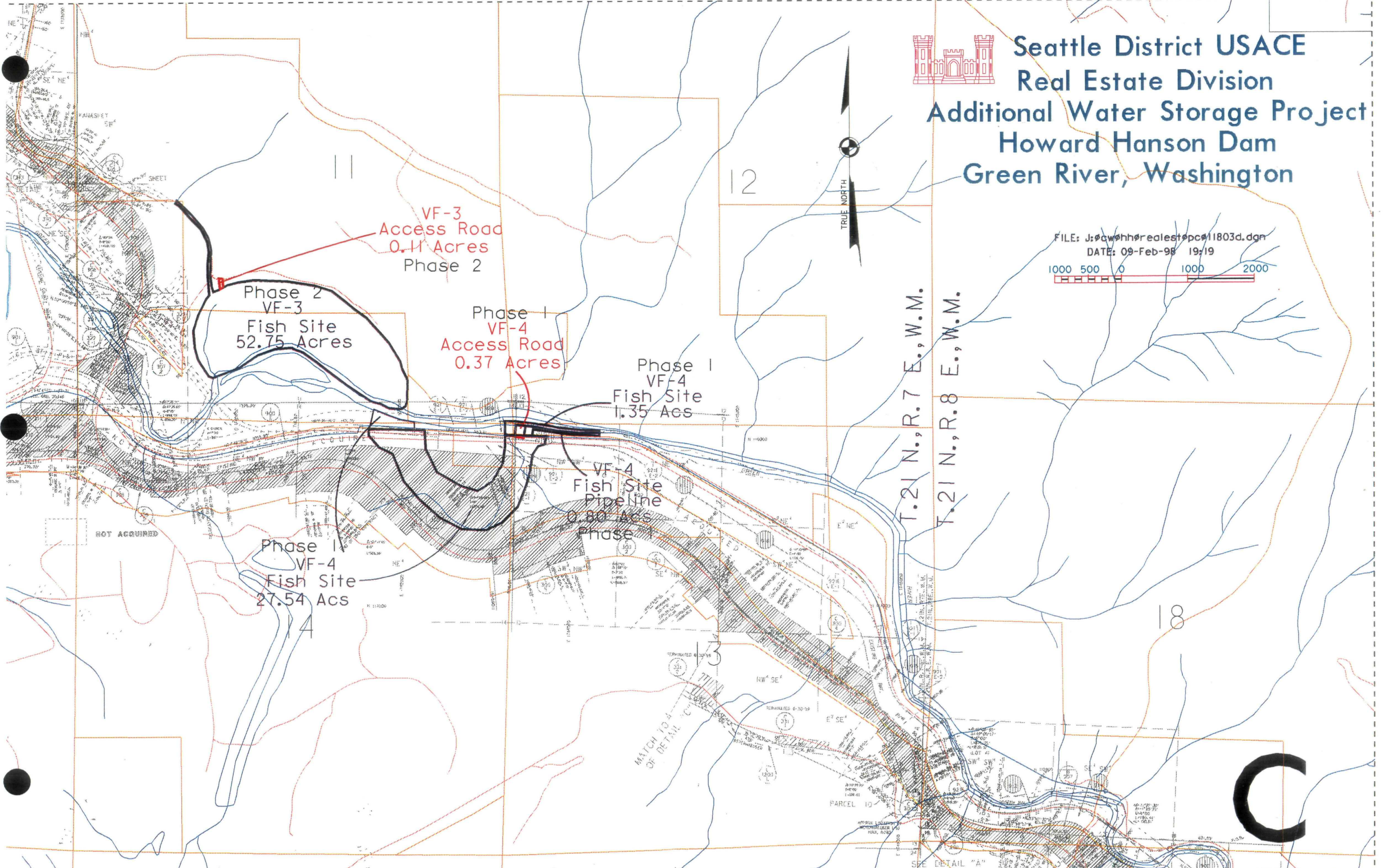
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 FISH AREA, 1.70 ACRES
 ACCESS ROAD, 0.21 ACRES
 PHASE I

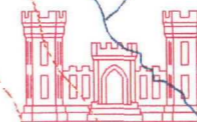
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Seattle District USACE
Real Estate Division
Additional Water Storage Project
Howard Hanson Dam
Green River, Washington

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Seattle District USACE
 Real Estate Division
 Additional Water Storage Project
 Howard Hanson Dam
 Green River, Washington

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NOT ACQUIRED
FOREST PLAN (Site 26) Phase 1,2
 250.92 ACS (full size of Site 26)
 -32.90 ACS (Other W. Restoration Sites, Fish Sites, & Access Roads)
 218.02 ACS (Site 26)
 -6.54 ACS (RD)
 211.48 ACS (Site 26)

1.27 ACS (F614E-1, Access Road)
2.06 ACS (J1000E-1, Access Road)
0.77 ACS (J1000E-2, Access Road)
+2.44 ACS (J1001E-2, Access Road)
6.54 ACS (Access Roads)

TR-09 Phase I
 FISH SITE, 14.66 ACRES
 TR-06
 FISH SITE, 23.86 ACRES
 Phase I

Phase I
 TR-04 & 6
 ACCESS ROAD 0.81 ACRES

T. 21 N., R. 8 E., W. M.

Phase I
 VF-5 (0.22), TR-07 (0.53)
 ACCESS ROAD, 0.75 ACRES
 TR-07
 ACCESS ROAD, 0.76 ACRES

VF-05 Phase I
 11.17 AC
 3.94 AC
 Phase I
 TR-07
 FISH SITE, 0.93 ACRES

Phase I
 TR-05
 FISH SITE
 AREA: 0.50 AC

Phase 2
 TR-04
 FISH AREA,
 2.03 ACRES

Phase I
 TR-04
 FISH AREA,
 10.84 ACRES

LEGEND
 --- 1177' Elevation
 --- 1147' Elevation



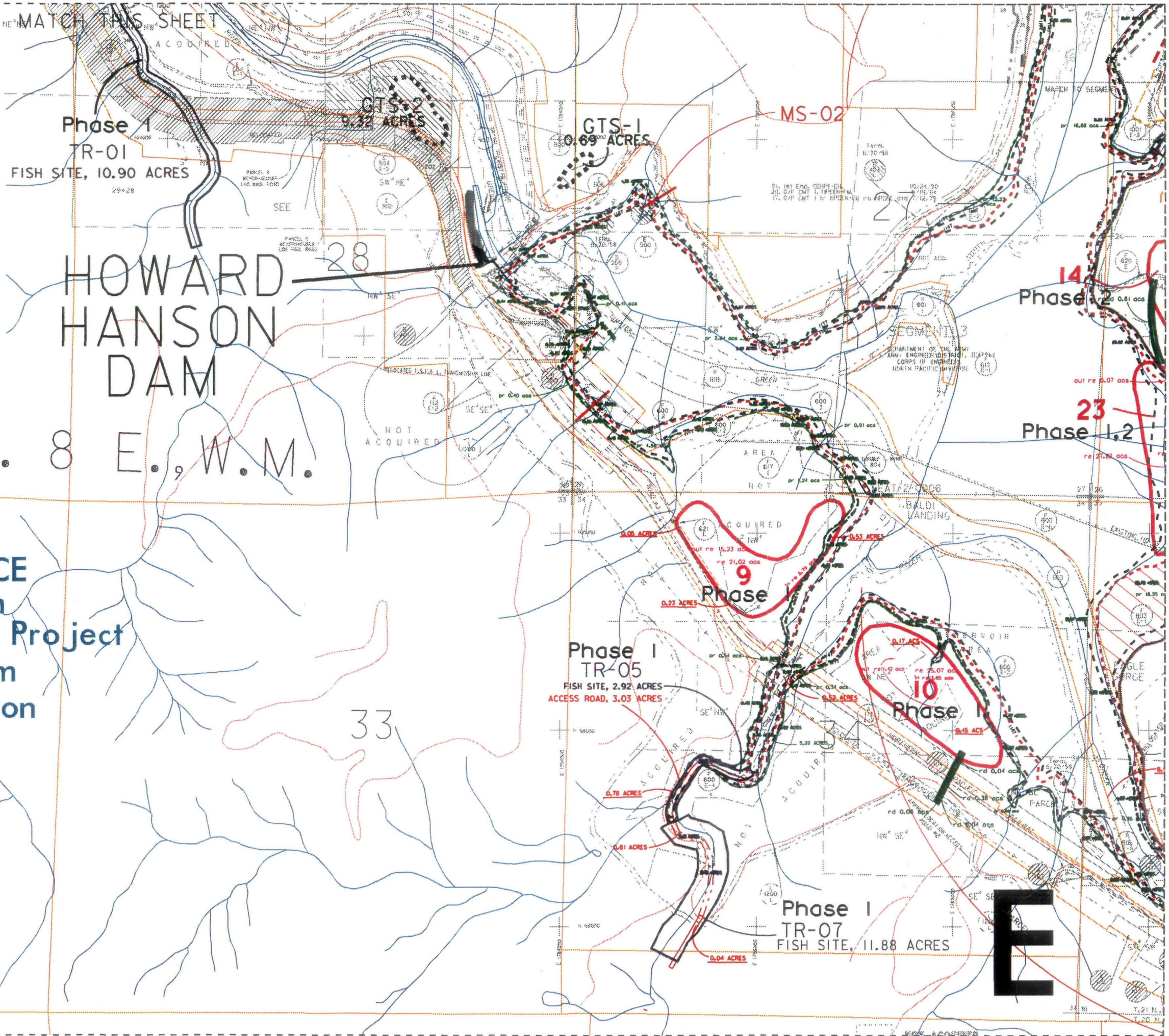
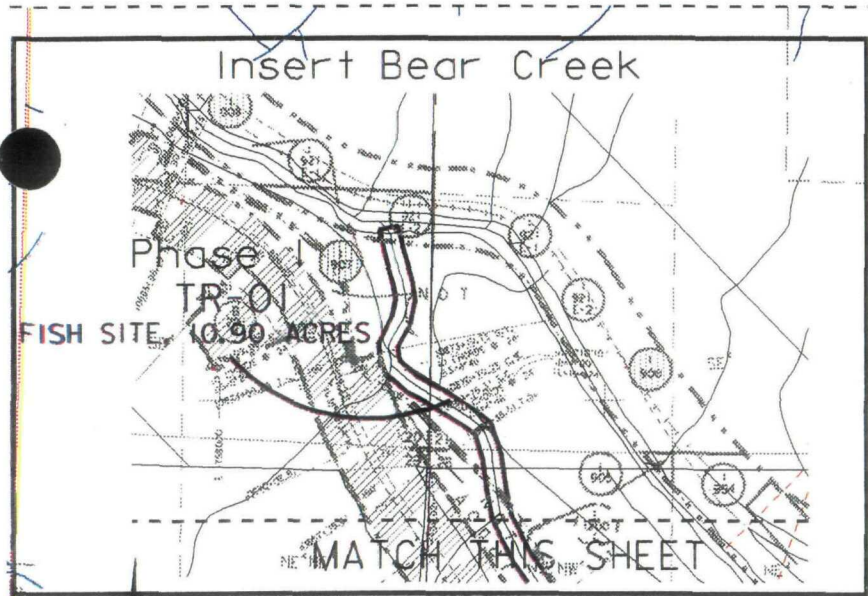
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13

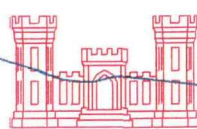
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24

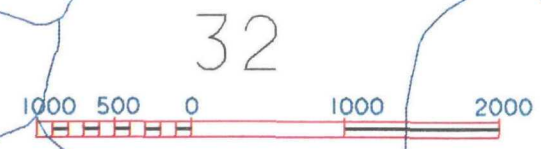
D



29
T. 21 N., R. 8 E., W.M.

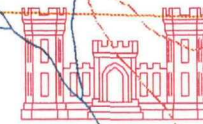


**Seattle District USACE
Real Estate Division
Additional Water Storage Project
Howard Hanson Dam
Green River, Washington**



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E

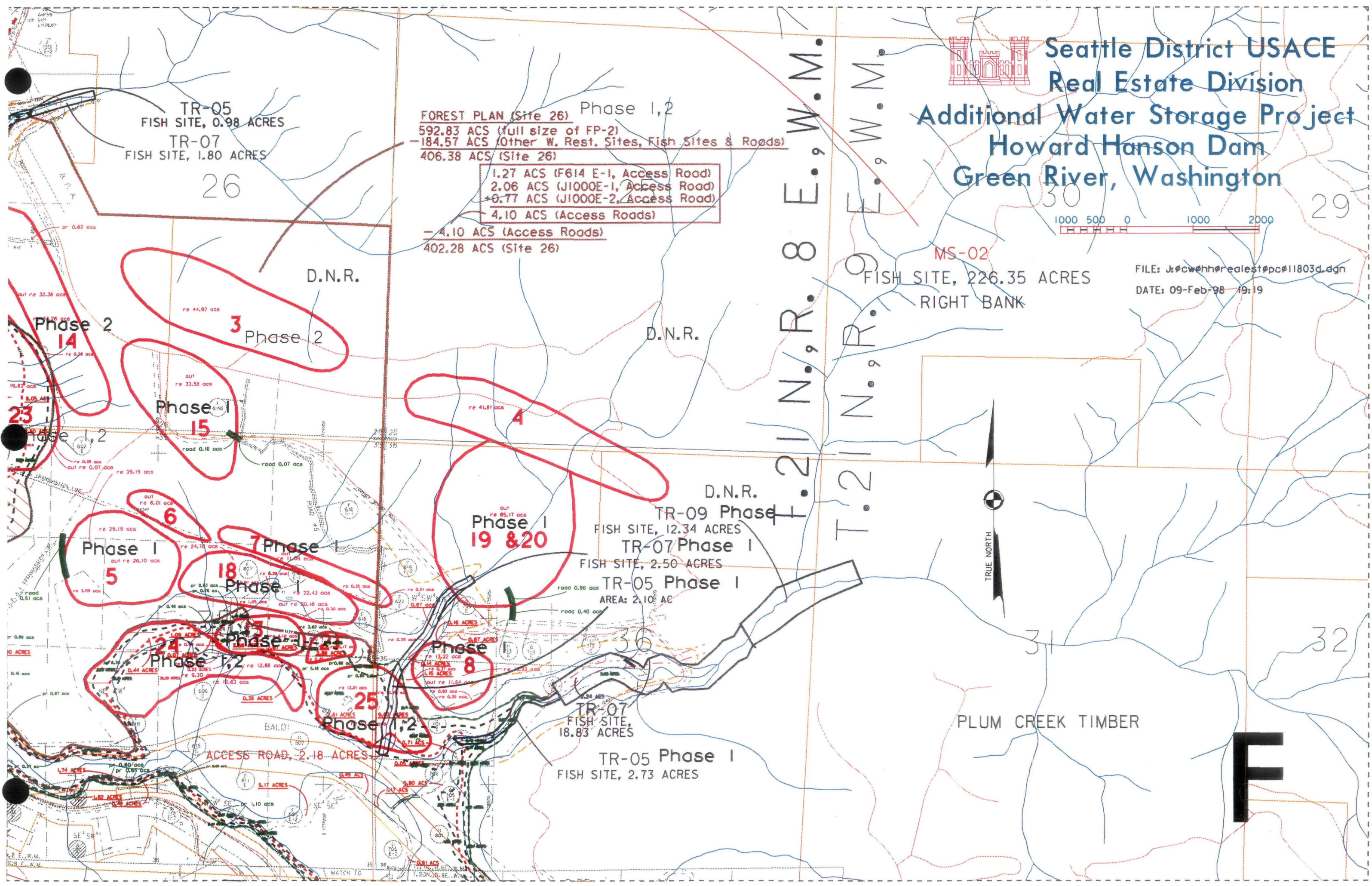


Seattle District USACE
Real Estate Division

Additional Water Storage Project
Howard Hanson Dam
Green River, Washington



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TR-05
FISH SITE, 0.98 ACRES
TR-07
FISH SITE, 1.80 ACRES

26

FOREST PLAN (Site 26) Phase 1,2
592.83 ACS (full size of FP-2)
-184.57 ACS (Other W. Rest. Sites, Fish Sites & Roads)
406.38 ACS (Site 26)

1.27 ACS (F614 E-1, Access Road)
2.06 ACS (J1000E-1, Access Road)
+0.77 ACS (J1000E-2, Access Road)
4.10 ACS (Access Roads)

-4.10 ACS (Access Roads)
402.28 ACS (Site 26)

D.N.R.

D.N.R.

MS-02
FISH SITE, 226.35 ACRES
RIGHT BANK

Phase 2
14

Phase 2
3

Phase 1
15

Phase 1
4

D.N.R.

Phase 1
19 & 20

TR-09 Phase 1
FISH SITE, 12.34 ACRES
TR-07 Phase 1
FISH SITE, 2.50 ACRES
TR-05 Phase 1
AREA: 2.10 AC

Phase 1
5

Phase 1
18

Phase 1
8

Phase 1,2
24

Phase 1,2
25

TR-07
FISH SITE,
18.83 ACRES

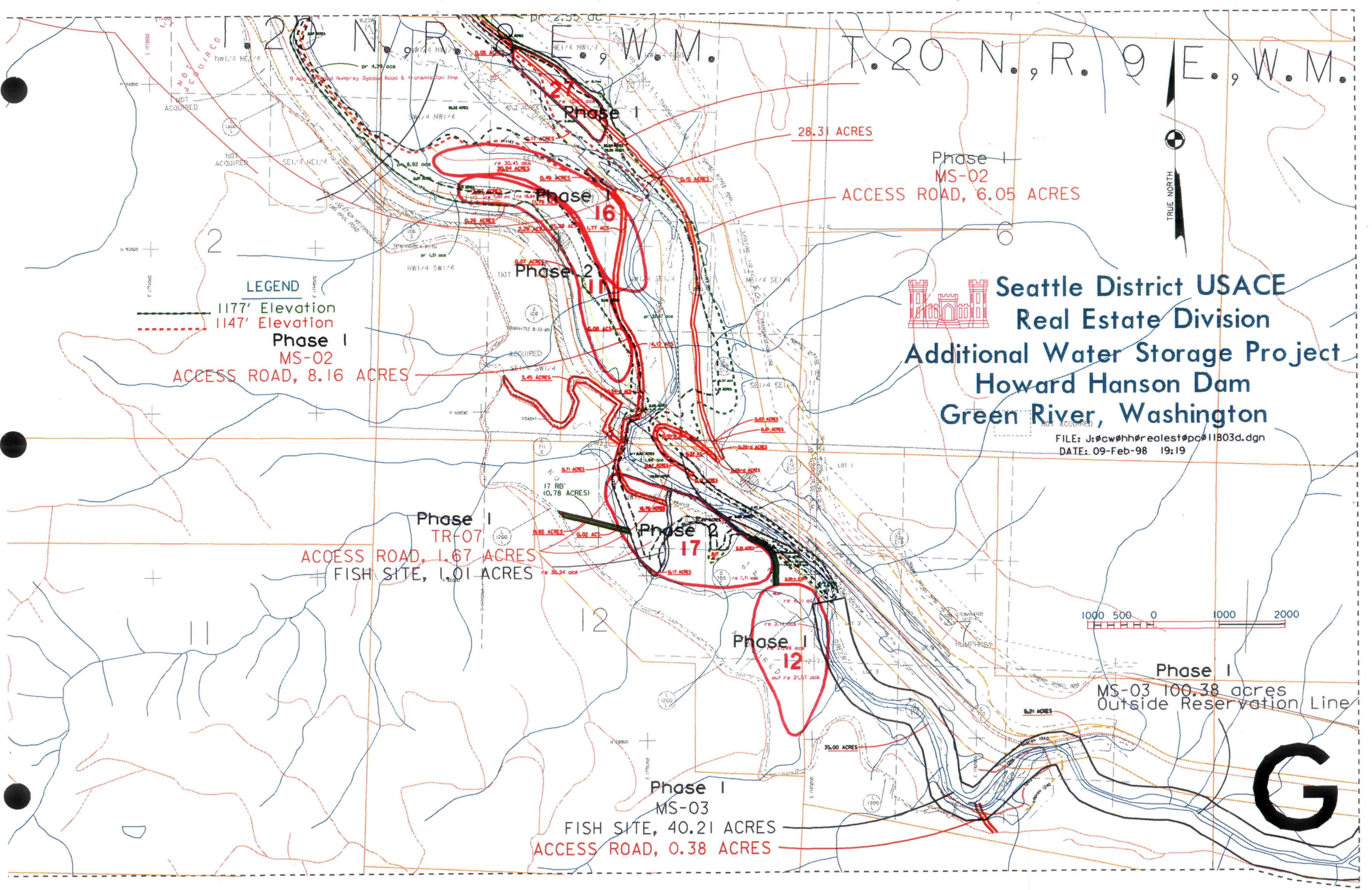
TR-05 Phase 1
FISH SITE, 2.73 ACRES

ACCESS ROAD, 2.18 ACRES

PLUM CREEK TIMBER

E





LEGEND
 1177' Elevation
 1147' Elevation
 Phase I
 MS-02
 ACCESS ROAD, 8.16 ACRES

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Real Estate Division
Additional Water Storage Project
Howard Hanson Dam
Green River, Washington

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Phase I
 TR-07
 ACCESS ROAD, 1.67 ACRES
 FISH SITE, 1.01 ACRES

Phase I
 MS-03
 FISH SITE, 40.21 ACRES
 ACCESS ROAD, 0.38 ACRES

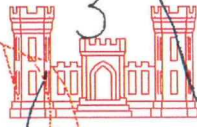
28.31 ACRES

Phase I
 MS-02
 ACCESS ROAD, 6.05 ACRES



Phase I
 MS-03 100.38 acres
 Outside Reservation Line

G



Seattle District USACE

Real Estate Division

Additional Water Storage Project

Howard Hanson Dam

Green River, Washington

T. 20 N., R. 9 E., W. M.

TRUE NORTH



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Phase I
S-03 100.38 acres
Outside Reservation Line

Phase I
MS-08 N

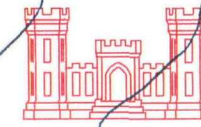
FISH SITE, 81.64 ACRES
FISH SITE, 40.80 ACRES
In Channel

MS-08 S

FISH SITE, 82.04 ACRES
Phase I

GREEN RIVER

H



Seattle District USACE

Real Estate Division

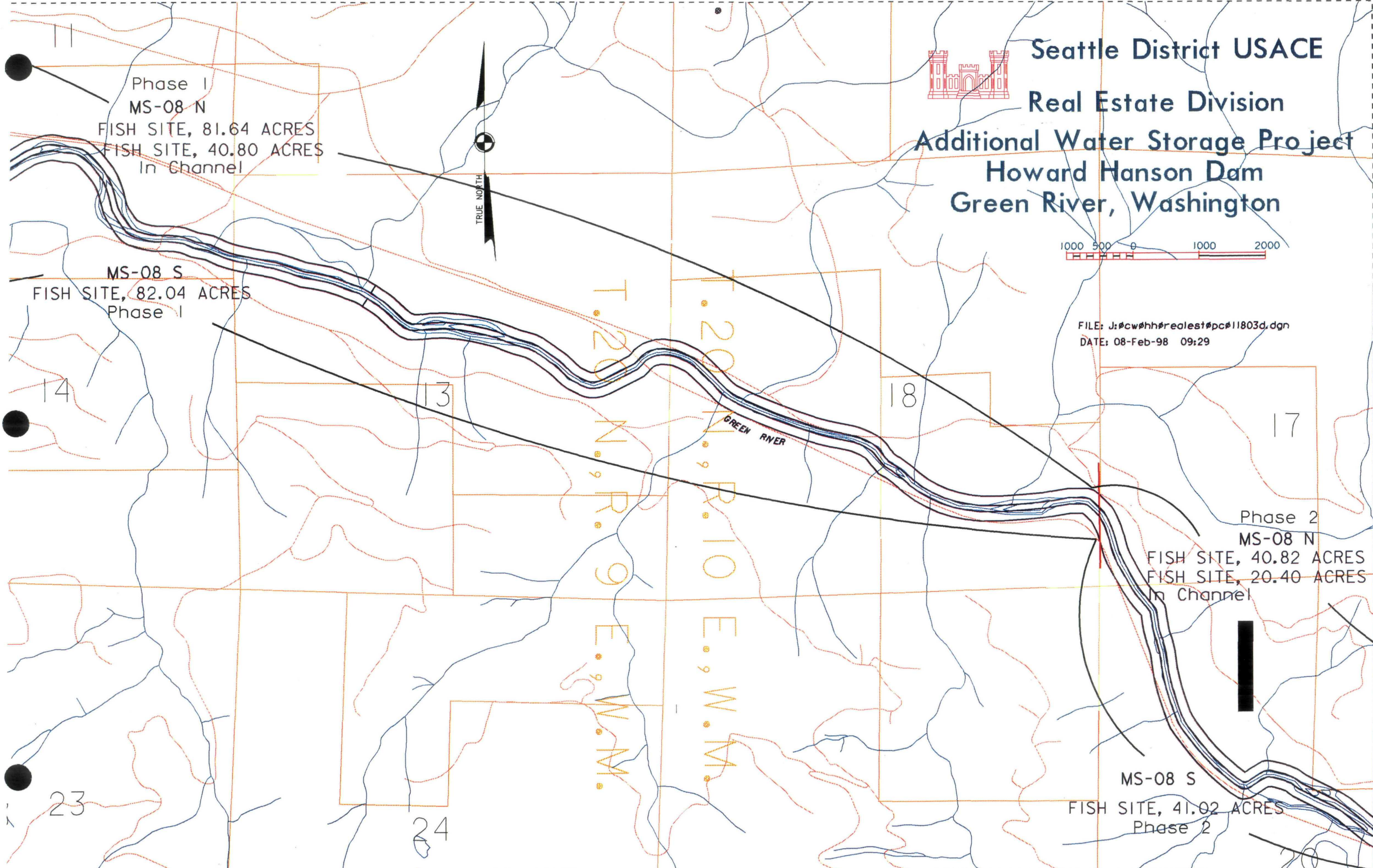
Additional Water Storage Project

Howard Hanson Dam

Green River, Washington



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Phase 1
MS-08 N
FISH SITE, 81.64 ACRES
FISH SITE, 40.80 ACRES
In Channel

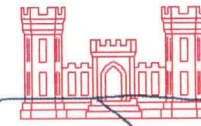
MS-08 S
FISH SITE, 82.04 ACRES
Phase 1

Phase 2
MS-08 N
FISH SITE, 40.82 ACRES
FISH SITE, 20.40 ACRES
In Channel

MS-08 S
FISH SITE, 41.02 ACRES
Phase 2

T. 20 N. 9 R. 10 E. 9 W. M.
T. 20 N. 9 R. 9 E. 9 W. M.

T. 20 N., R. 10 E., W. M.



Seattle District USACE
Real Estate Division

Additional Water Storage Project
Howard Hanson Dam
Green River, Washington



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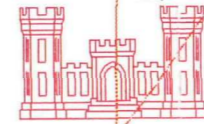
Phase 2
MS-08 N
FISH SITE, 40.82 ACRES
FISH SITE, 20.40 ACRES
In Channel

GREEN RIVER
MS-08 S
FISH SITE, 41.02 ACRES
Phase 2

22

23

J



Seattle District USACE
Real Estate Division

Additional Water Storage Project
Howard Hanson Dam
Green River, Washington



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TRUE NORTH



T. 20 N., R. 10 E., W. M.

T. 20 N., R. 11 E., W. M.

MS-04
FISH SITE, 8.68 ACRES

GREEN RIVER

K

SECTION 7 EXHIBIT B (NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY ASSESSMENT)

HOWARD HANSON DAM ADDITIONAL WATER STORAGE PROJECT ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

I. Legal Authority:

- a. Does the sponsor have legal authority to acquire and hold title to real property for purposes? **YES**
- b. Does the sponsor have the power of eminent domain for this project? **YES**
- c. Does the sponsor have "quick-take" authority for this project? **YES. The non-Federal sponsor has the authority to acquire immediate possession. However, title vests after agreement of just compensation determined by judicial decision.**
- d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? **YES**
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **NO**

II. Human Resource Requirements:

- a. Will the sponsor's in-house staff require training to become familiar with real estate requirements of Federal projects including P. L. 91-646, as amended? **YES**
- b. If the answer to II.a. is "yes," has a reasonable plan been developed to provide such training? **YES**
- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **YES**
- d. Is the sponsor's project in-house staff level sufficient considering its other work load, if any, and the project schedule? **YES**
- e. Can the sponsor obtain contractor support, if required, in a timely fashion? **YES**

APPENDIX G — REAL ESTATE ASSESSMENT

f Will the sponsor likely request U.S. Army Corps of Engineers (USACE) assistance in acquiring real estate? **NO** (If "yes," provide description).

III. **Other Project Variables:**

a. Will the sponsor's staff be located within reasonable proximity to the project site? **YES**

b. Has the sponsor approved the project/real estate schedule/milestones? **YES**

IV. **Overall Assessment:**

a. Has the sponsor performed satisfactorily on other USACE projects? **NOT APPLICABLE**


b. With regard to this project, the sponsor is anticipated to be:
 highly capable
 fully capable
 moderately capable
 marginally capable
 insufficiently capable. (If sponsor is believed to be "insufficiently capable", provide explanation).

V. **Coordination:**

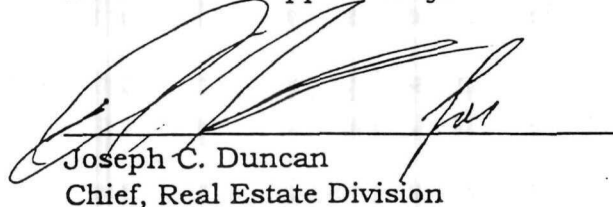
a. Has this assessment been coordinated with the sponsor? **YES**

b. Does the sponsor concur with this assessment? **YES**
(If "no," provide explanation).

Prepared by:


Wanda F. Gentry
Realty Specialist

Reviewed and approved by:


Joseph C. Duncan
Chief, Real Estate Division

**SECTION 8 EXHIBIT C (DRAFT CERTIFICATION OF
LANDS AND AUTHORIZATION FOR ENTRY)**

**DRAFT CERTIFICATION OF LANDS AND
AUTHORIZATION FOR ENTRY**

DATE:

Department of the Army
Seattle District, Corps of Engineers
ATTN: Real Estate Division
Post Office Box 3755
Seattle, Washington 98124-3755

RE Certification of Lands
and Authorization For Entry
Howard Hanson Dam Additional
Water Storage Project (Phase I/II)

By Project Cooperation Agreement dated the _____ day of _____
200 ____, the City of Tacoma, Washington, assumed full responsibility to fulfill the
requirements of non-federal cooperation as specified therein and in accordance with the
Water Resources Development Act of 1986, as amended.

This is to certify that the City of Tacoma has sufficient title and interest in the lands
hereinafter described and shown on Exhibit A, attached, in order to enable the City of
Tacoma to comply with the aforesaid requirements of non-federal cooperation.

Said lands and/or interest therein are owned or have been acquired by the City of
Tacoma and are to be used for the construction, maintenance and operation of the above
referenced project and include, but are not limited to the following specifically enumerated
rights and uses, except as hereinafter noted:

(1) Fee Estate. The fee simple title, (the land to be described), subject, however, to
existing easements for public roads and highways, public utilities, railroad and pipelines.

APPENDIX G — REAL ESTATE ASSESSMENT

(2) Road Easement. A perpetual and assignable easement and right-of-way in, on, over and across (the land to be described) for the location, construction, operation, maintenance, alteration and replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving, however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B); subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

(3) Pipeline Easement. A perpetual and assignable easement and right-of-way in, on, over and across (the land to be described), for the location, construction, operation, maintenance, alteration, repair and patrol of an underground pipeline; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

(4) Temporary Work Area Easement. A temporary and assignable easement and right-of-way in, on, over, and across (the land to be described) for a period not to exceed three (3) years beginning with the date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a work area, including the right to move, store, and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the Howard Hanson Dam Additional Water Storage Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures or obstacles, within the limits of the right-of-way; reserving, however, to the grantors, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

(5) Temporary Disposal Area Easement. A temporary and assignable easement and right-of-way in, on, over, and across (the land to be described) for a period not to exceed three (3) years, beginning with the date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a disposal area, including the right to deposit fill, dredged material and waste material thereon, move, store, and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the Howard Hanson Dam Additional Water Storage Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures or obstacles, within the limits of the right-of-way; reserving, however, to the grantors, their heirs and assigns, all such rights and privileges as

APPENDIX G — REAL ESTATE ASSESSMENT

may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

(6) Drainage Wells and Underground Drainage Tunnel. A perpetual and assignable easement and right of way in, on, under, over and across the above (the land to be described) for the location, construction, operation, maintenance, alteration, and repair of drainage wells and an underground drainage tunnel; together with the right to trim, cut, fell, and remove therefrom, trees, underbrush, obstructions, and other vegetation, structures or obstacles within the limits of the right of way, which obstruct drilling of drainage wells; reserving, however, to the Grantor, its successors and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby granted; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines, and to reservations, exceptions and any other outstanding rights contained in or referred to in patents issued by the United States.

(7) Inclinometer Easement. A perpetual and assignable easement and right of way in, on, over and across (the land to be described) for the location, construction, operation and maintenance, alteration, repair, and patrol and remove an inclinometer; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easements hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

(8) Modification For Environmental Restoration and Mitigation.

Easement for Channel Improvement and Riparian Enhancement -- UPLAND.
LOCATION. A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair and replace channel features, planting and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the establishment or introduction of vegetation and plantings; and any measures or modifications including placement of other materials together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

APPENDIX G — REAL ESTATE ASSESSMENT

(9) Modification For Environmental Restoration and Mitigation.

Easement for Channel Improvement and Riparian Enhancement - SIDE CHANNEL LOCATION. A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair and replace channel features, plantings and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the removal or placement of gravels, cobbles or boulders, structures, open channels, pipes or other conveyances that redirect or recharge the flow to adjacent side channels or riparian areas; together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

(10) Modification For Environmental Restoration and Mitigation.

Easement for Channel Improvement and Riparian Enhancement -- IN CHANNEL LOCATIONS AND WETLAND LOCATIONS: A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain repair and replace channel features, plantings and any other improvements within the riparian/river corridor for channel and bank stabilization, fish and wildlife habitat improvements and other environmental benefits; including the removal or placement of gravels, cobbles or boulders, bank vegetation and plantings and any measures or modifications including the placement of other materials or structures in the bed or banks that modify, augment, direct or influence stream velocity or channel form; together with any necessary access for construction, operation, repair or replacement; reserving however to the owners, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements of public roads and highways, public utilities, railroads and pipelines.

The City of Tacoma does hereby grant to the UNITED STATES OF AMERICA, its representatives, agents and contractors, an irrevocable right, privilege and permission to enter upon the lands hereinbefore mentioned for the purpose of prosecuting the project.

The City of Tacoma certifies to the UNITED STATES OF AMERICA that any lands acquired subsequent to the execution of the Project Cooperation Agreement that are necessary for this project have been accomplished in compliance with the provisions of

APPENDIX G — REAL ESTATE ASSESSMENT

the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (Public Law 91-646) as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR Part 24.

City of Tacoma, Washington

By: _____

[TYPE NAME]

[TITLE]

DATE: _____

**SECTION 9 EXHIBIT D (DRAFT ATTORNEY'S
CERTIFICATE OF AUTHORITY)**

**DRAFT ATTORNEY'S CERTIFICATE,
CERTIFICATE OF AUTHORITY**

PROJECT: HOWARD HANSON DAM ADDITIONAL WATER STORAGE
PROJECT, WASHINGTON (PHASE I/II)

I [Name of Attorney], for City of Tacoma, Washington], certify that the City of Tacoma is vested with sufficient title and interest in the described lands required by the United States of America to support the construction, operation and maintenance of the Howard Hanson Additional Water Storage Project; that the City of Tacoma has authority to grant the Certification of Lands and Authorization For Entry to which this Certificate is appended; that said Certification of Lands and Authorization For Entry is executed by the proper duly authorized authority; and that said authorization is in sufficient form to grant the Certification of Lands and Authorization For Entry therein stated.

SIGNED this ____ day of _____ 200 ____.

[TYPE NAME]
[TYPE FULL OFFICIAL TITLE]