State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N, Olympia, Washington 98501-1091 - (360) 902-2200

ENVIRONMENTAL CHECKLIST
(WAC 197-11-960)

A. BACKGROUND

1. **Name of proposed project, if applicable:** Davis Slough Levee Repair

2. **Name of Applicant:** Washington Department of Fish and Wildlife

3. **Address and phone number of applicant and contact person:**

Washington Dept of Fish and Wildlife
Capitol Programs & Engineering Division
600 Capitol Way North
Olympia, WA 98501-1091

Contact Person: Marty Peoples
Fish and Wildlife Biologist
Telephone Number: (360) 902-8426
Fax Number: (360) 902-8367
E-Mail: peoplmdp@dfw.wa.gov

4. **Date checklist prepared:** August 5, 2010

5. **Agency requesting checklist:** Washington Department of Fish and Wildlife.

6. **Proposed timing or schedule (including phasing, if applicable):**

   Fall 2010.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:**

   None known.

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   None are pending.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

    An Island County Shoreline Exemption Permit and WDFW HPA, and Army CORP permit will be

needed.

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

This project will restore eroded areas and protect the long term function of the levee next to Davis Slough (see attached drawings). WDFW is performing this work as a response to landowners concerns that the recent breach to the North Leque Island Levee has produced a funneling effect and resulted in water actively eroding portions of the adjoining property owner's levee. Failure of this levee would result in inundation of valuable farmland and aquifer recharge areas. A levee failure would also allow water to reach unprotected portions of Highway 532.

Site 1. WDFW proposes to install 24 vertically placed untreated wood pilings at the base of the levee to prevent strong receding tidal flows from directly impacting and souring the levee on the Island County side of Davis Slough. These pilings will serve as a protective barrier and prevent further erosion. Behind the piles woody debris will be placed horizontally to strengthen the piling structure and fill voids caused by previous erosion. Above MHHW woody debris and root wads will be placed to fill voids and provide soft armor for the levee. Access will be achieved from the top of the levee.

Site 2. 100 cubic yards of pit run fill will be placed on top of a 325 foot section of levee to repair erosion. This fill will be placed above the mean high water level and bring the top of the levee up approximately 2 feet. 2 cubic yards of quarry spalls will be place at and below the mean high water line to repair erosion next to the existing tide gate.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The proposed project site is located approximately 1.5 miles northwest on Stanwood on Highway 532. Leaving Stanwood and heading towards Camano Island, the parking area is on the right just after 532 crosses Davis Slough Bridge. The specific project site is 200 yards from the parking area walking north on the levee. This project is located in Island County, Section 22, Township 32 North, Range 3 East.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (underline one): <u>flat</u>, rolling, hilly, steep slopes, mountainous, other_____.

b. What is the steepest slope on the site (approximate percent slope)?

5% slope.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of the agricultural soils, specify them and note any prime farmland.

Soils in the vicinity are classified as beaches - Endoaquents , tidal Xerorthents association

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.** No.

e. **Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.**

Fill will consist of untreated woody debris, and imported dirt and quarry spalls from a local quarry.

f. **Could erosion occur as a result of clearing, construction or use? If so generally describe.**

Yes, pile placement and dirt placement activities will temporarily disturb soil surfaces.

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

There will be no increase in impervious surfaces.

h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Erosion impacts will be reduced by placing a sediment barrier around the construction sites to isolate the disturbed area from surface waters.

2. **Air**

a. **What type of emissions to the air would result from the proposal (i.e., dust automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**

Low levels of vehicle exhaust emissions and dust from construction activities are expected during project activities. No long-term effects in air quality are anticipated to result from the completed project.

b. **Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.** No.

c. **Proposed measures to reduce or control emissions or other impacts to air, if any:** None.

3. **WATER**

a. **Surface**

1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes ponds or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Davis Slough is within the project site. Davis Slough is connected to Skagit Bay.

2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes, all components of the project are directly adjacent to Davis Slough (see attached plans).

3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

No material will be dredged. 28 vertical and horizontal wood pilings will be installed. 100 yards of pit run will be placed above mean high water. 2 yards of rock will be placed at the mean high water line and just below that elevation.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

No.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Yes, the entire site is within the 100-year floodplain.

6) **Does the proposal involve any discharges of waste material to surface waters? If so, describe the type of waste and anticipated volume of discharge.** No.

b. **Ground**

1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description purpose, and approximate quantities, if known.** No.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged.

c. **Water Runoff (including storm water):**

1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (including quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Stormwater in the area sheet flows from impervious road surfaces (top of dike) onto adjacent farmland and is infiltrated. This project will not change storm water runoff patterns.

2) **Could waste materials enter ground or surface waters? If so, generally describe.** No.

d. **Proposed measures to reduce or control surface, ground and runoff water impacts, if any:**

None.

4. **PLANTS**

a. **Check or underline types of vegetation found on the site:**

___ **deciduous tree: <u>alder</u>, <u>maple</u>, aspen, other**

___ **evergreen tree: fir, cedar, pine, other; Sitka spruce**

_x_ **shrubs**

_x_ **grass**

___ **pasture**

_x_ **crop or grain**

_x_ **wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other**

_x_ **water plants: waterlily, eelgrass, milfoil, other**

___ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

No vegetation will be removed.

c. List threatened and endangered species [of plants] known to be on or near the site.

No endangered plant species are listed near this site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Disturbed ground will be minimal and no plantings are scheduled to be done.

5. ANIMALS

a. Underline any birds or animals, which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other: waterfowl.

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

Endangered species are known to occur near this site. These include Puget Sound Chinook, Puget Sound Steelhead and Bull Trout.

c. Is the site part of a migration route? If so, explain.

Juvenile chinook utilize this area as rearing habitat during their outmigration.

d. Proposed measures to preserve and enhance wildlife, if any:

Work will be done during low tidal periods to minimize impacts to aquatic species. Untreated wood pilings and woody debris will be used as the primary building material in lower tidal elevations to provide fish habitat benefits.

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. None.

b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.** No.

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:** None.

7. **ENVIRONMENTAL HEALTH**

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste that could occur as a result of this proposal.** No.

1) **Describe special emergency services that might be required.** None.

2) **Proposed measures to reduce or control environmental health hazards, if any:** None.

b. **Noise**

1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?** None.

3) **What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Temporary increases in noise levels during construction activities are expected from this project. Hours of increased noise will be 8 am to 5 pm. No long term change in noise levels is expected from the completed project.

3) **Proposed measures to reduce or control noise impacts, if any:** None.

8. **LAND AND SHORELINE USE**

a. **What is the current use of the site and adjacent properties?**

This site is used as a protective structure to prevent inundation of adjacent agricultural areas.

b. **Has the site been used for agriculture? If so describe?**

Yes, agricultural fields are located directly next to the levee.

c. **Describe any structures on the site.**

Structures on this site are limited to a gate.

d. **Will any structures be demolished? If so what?** No.

e. **What is the current zoning classification of the site?**

Rural Agricultural.

f. **What is the current comprehensive plan designation of the site?**

Rural Agricultural.

g. **If applicable, what is the current shoreline master program designation of the site?**

Rural Agricultural.

h. **Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.**

No.

i. **Approximately how many people would reside or work in the completed project?**

No persons would reside here.

j. **Approximately how many people would the completed project displace?** None.

k. **Proposed measures to avoid or reduce displacement impacts, if any:** None.

l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

Proposed levee repair protects agricultural land uses.

9. **HOUSING**

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.** None.

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.** None.

c. **Proposed measures to reduce or control housing impacts, if any:** None.

10. **AESTHETICS**

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

Proposed repairs would extend 2 feet above ground level. Wood pilings and pit run fill would be the principle building materials.

b. **What views in the immediate vicinity would be altered or obstructed?** None.

c. **Proposed measures to reduce or control aesthetic impacts, if any:** None.

11. **LIGHT AND GLARE**

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

The repair will not may produce glare.

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

No.

c. **What existing off-site sources of light or glare may affect your proposal?** None.

d. **Proposed measures to reduce or control light and glare impacts, if any:** None.

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are hunting and fishing opportunities near this site. There are also waterfowl viewing opportunities available near this wildlife area.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No recreational activities will be displaced.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any: None.

13. HISTORIC AND CULTURAL PRESERVATION

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None are known.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site. None are known.

c. Proposed measures to reduce or control impacts, if any:

No excavation will occur.

14. TRANSPORTATION

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

US Highway 532 serves this site.

b. Is site currently served by public transit? If no, what is the approximate distance to the nearest transit stop?

No. The nearest public transit stop is unknown.

c. How many parking spaces would the completed project have? How many would the project eliminate? None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

There is no established water, air or rail transportation nearby.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No change in vehicle trips will occur. This area is closed to public vehicular traffic.

g. Proposed measures to reduce or control transportation impacts, if any: None.

15. PUBLIC SERVICES

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so generally describe. No.

b. Proposed measures to reduce or control direct impacts on public services, if any: None.

16. UTILITIES

a. Underline utilities currently available at the site: Electricity, Natural Gas, Water, Refuse Service, Telephone, Sanitary Sewer, Septic System, Other.

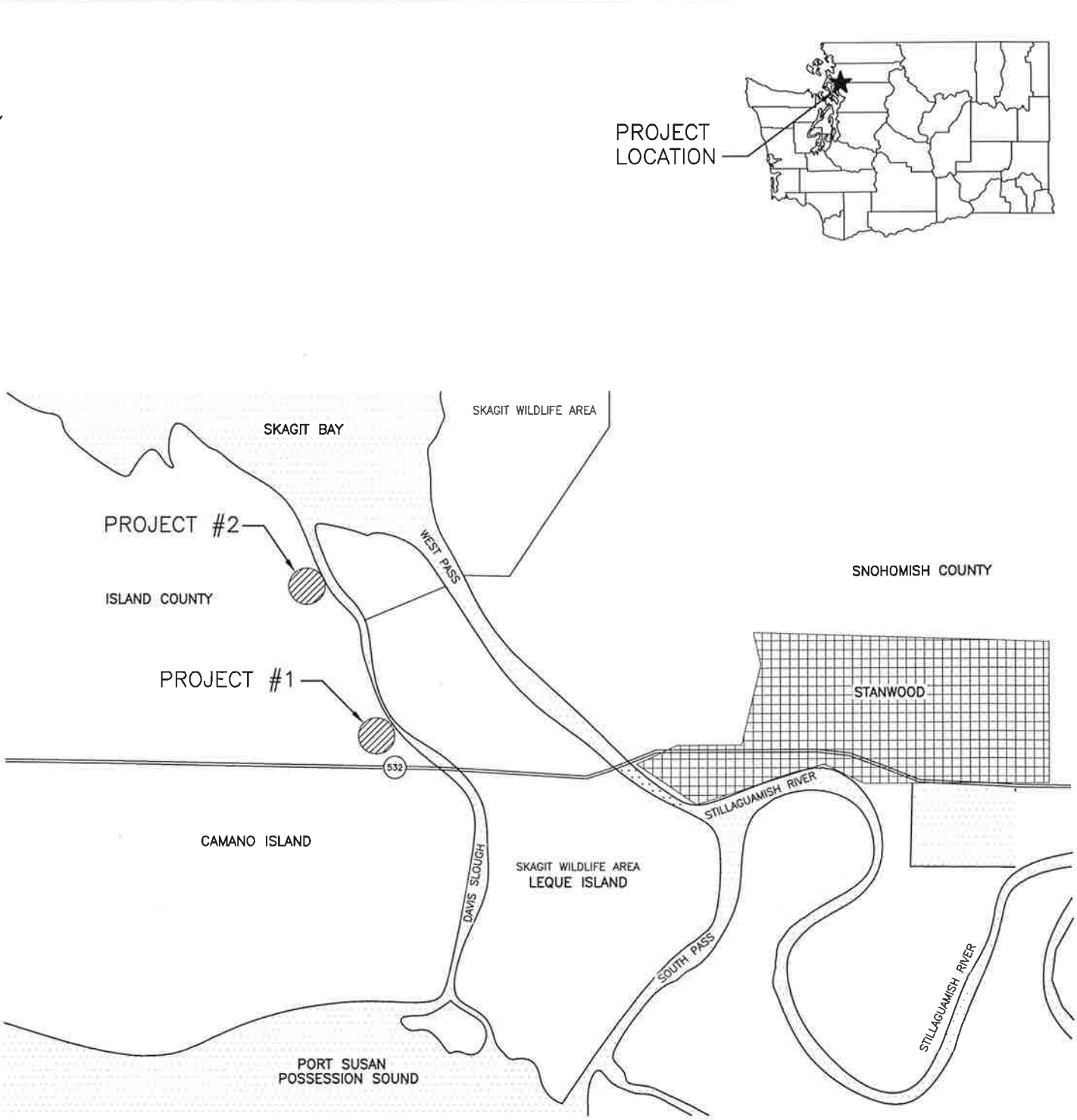
b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.

No utilities will be added or changed from this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

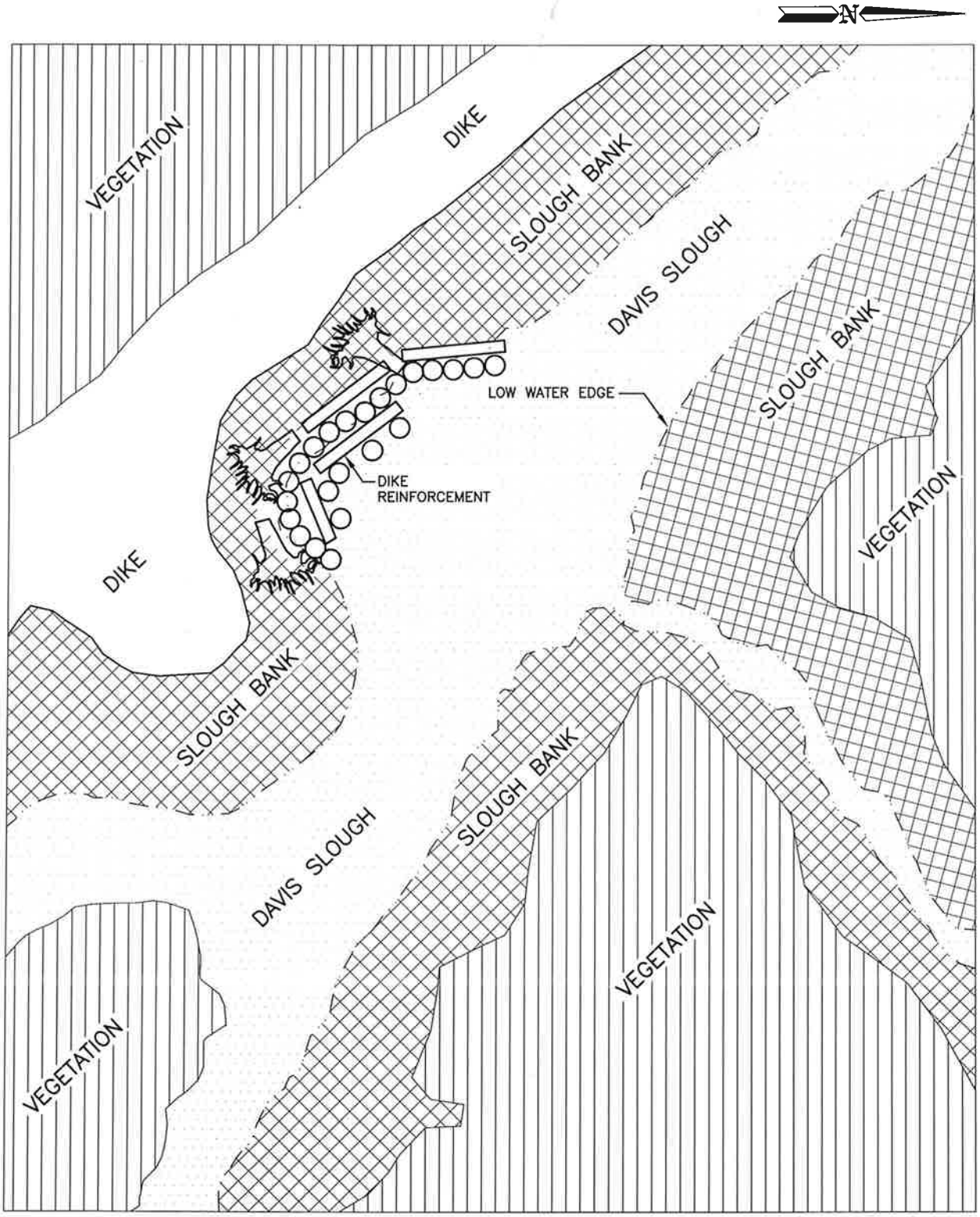
SIGNATURE: Martin Peoples **DATE SUBMITTED:** 8/24/10



VICINITY MAP

NOT TO SCALE

PURPOSE: REPAIR DIKE EROSION	WASHINGTON DEPT. of FISH & WILDLIFE 600 CAPITOL WAY N. OLYMPIA, WA 98501-1091	PROPOSED: ADD LOG SLOPE PROTECTION
DATUM: ASSUMED ADJACENT PROPERTY OWNER: 1. EMRICH ESTATE 2 ENG. PROJECT NO. ST:R4:10-2	REFERENCE NO. SITE: LEQUE ISLAND ADDRESS: SKAGIT WILDLIFE AREA STANWOOD, WA	IN: STILLAGUAMISH RIVER NEAR: STANWOOD COUNTY OF: ISLAND STATE: WA PORTION OF: SEC22, T32N, R3E DATE: 07/06/2010 SHEET 1 OF 3



SITE PLAN
NOT TO SCALE

REFERENCE NO.

APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE

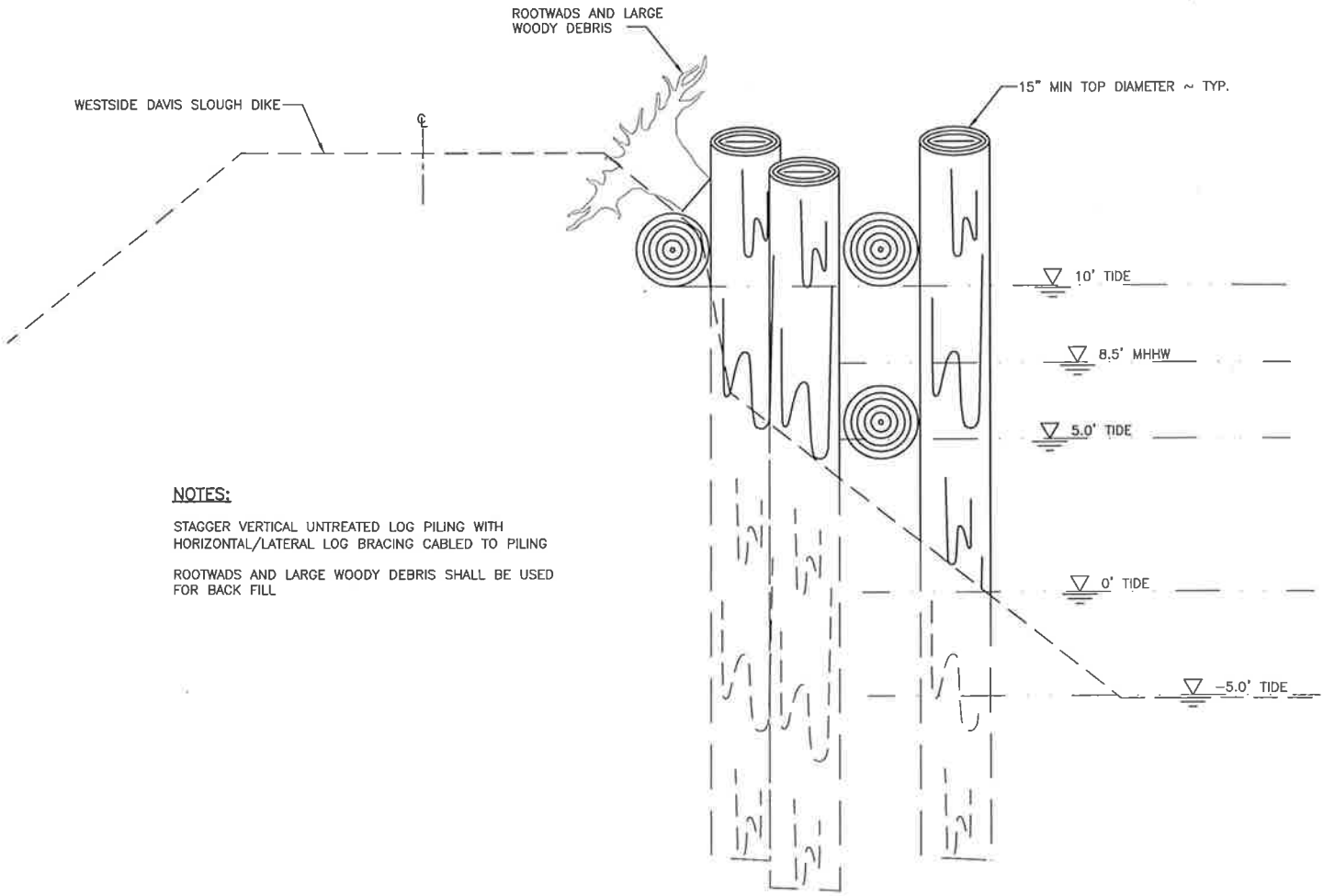
LEQUE ISLAND

SITE PLAN

AT: STANWOOD, WASHINGTON

DATE: 07/08/2010 SHEET 2 OF 3

ENG. PROJECT NO. ST:R4:10-2



NOTES:

STAGGER VERTICAL UNTREATED LOG PILING WITH HORIZONTAL/LATERAL LOG BRACING CABLED TO PILING

ROOTWADS AND LARGE WOODY DEBRIS SHALL BE USED FOR BACK FILL

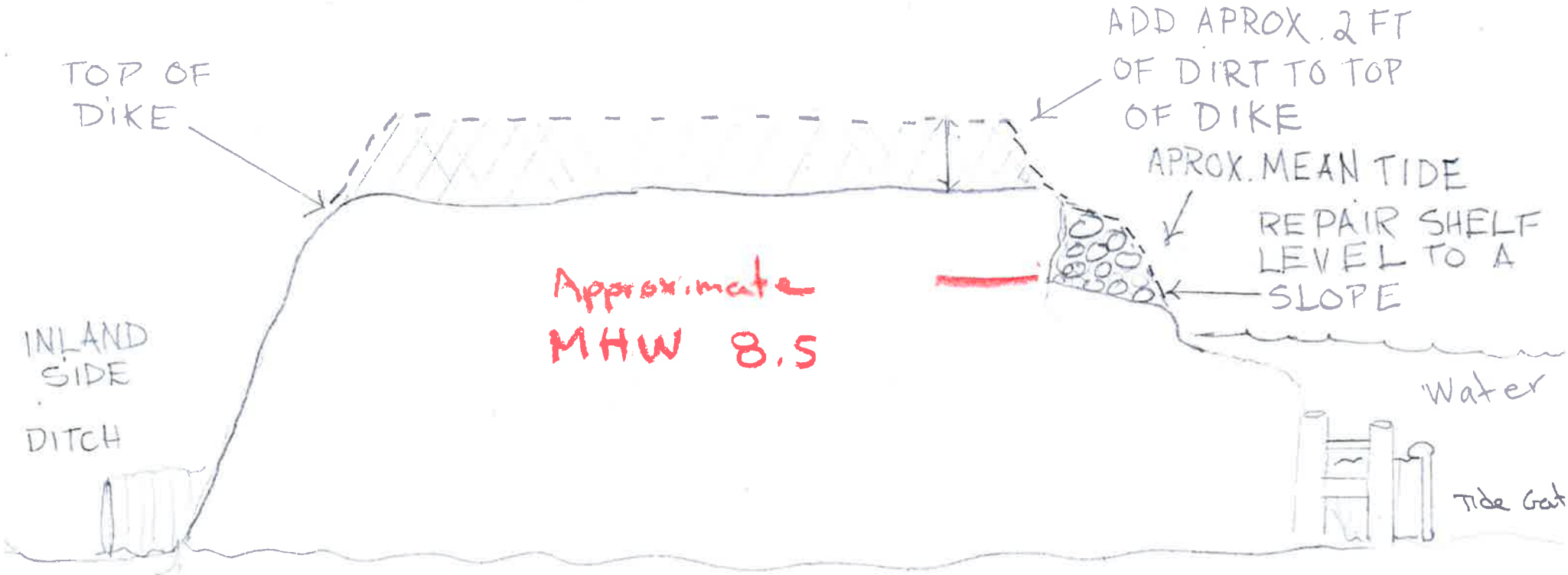
DIKE CROSS SECTION

NOT TO SCALE

REFERENCE NO.	
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE	
LEQUE ISLAND DIKE REINFORCEMENT CROSS SECTION DETAIL	
AT: STANWOOD, WASHINGTON	
DATE: 07/06/2010	SHEET 3 OF 3

ENG. PROJECT NO. ST:R4:10-2

CROSS SECTION VIEW 1 - Site 2



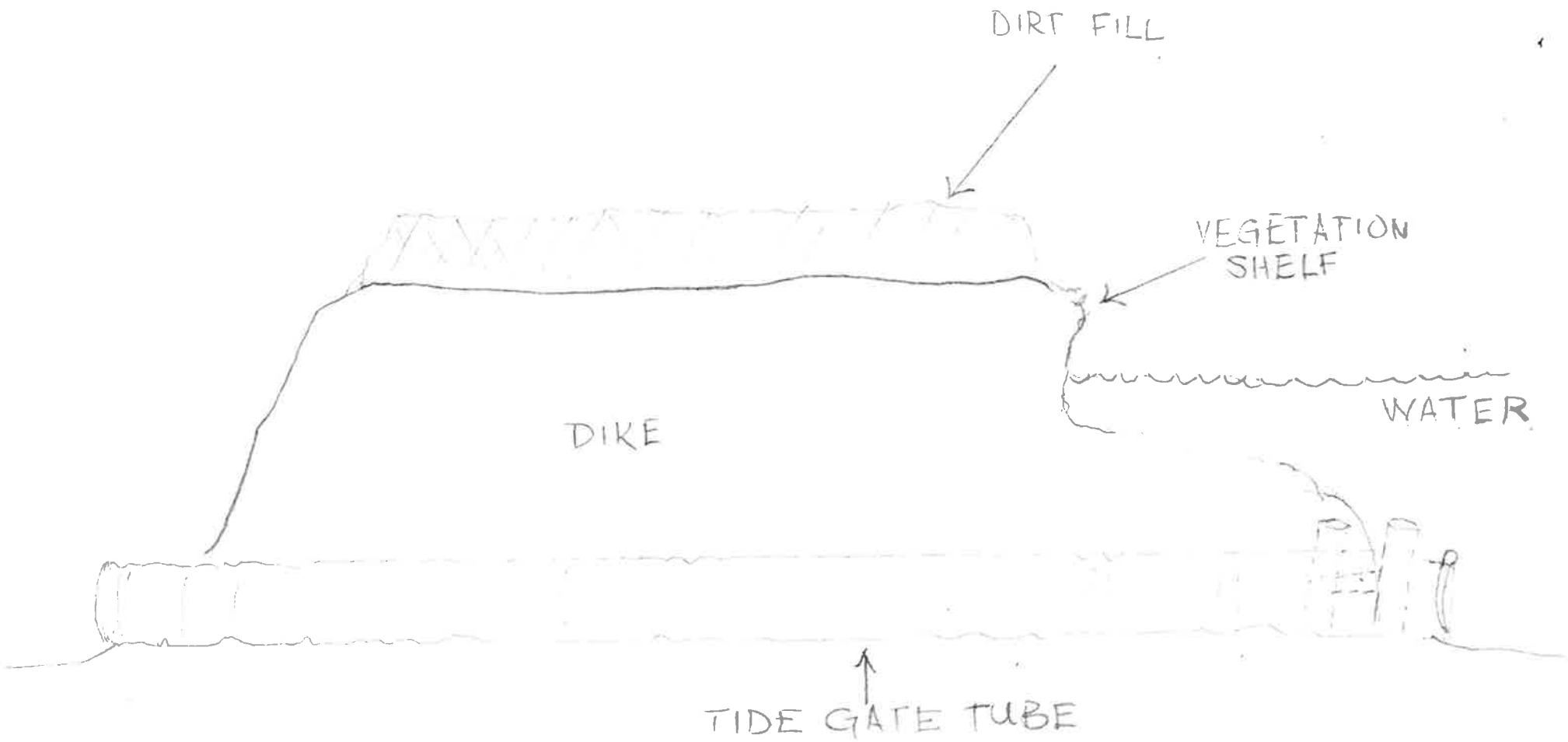
materials = Dirt - 100 yds
some Rock - 2 yds

Fill Replaced on top of Levee and about 1 Foot below Levee at Eroded at north and south side of tide gate.

8/23/10

MADAMBA/EMRICH

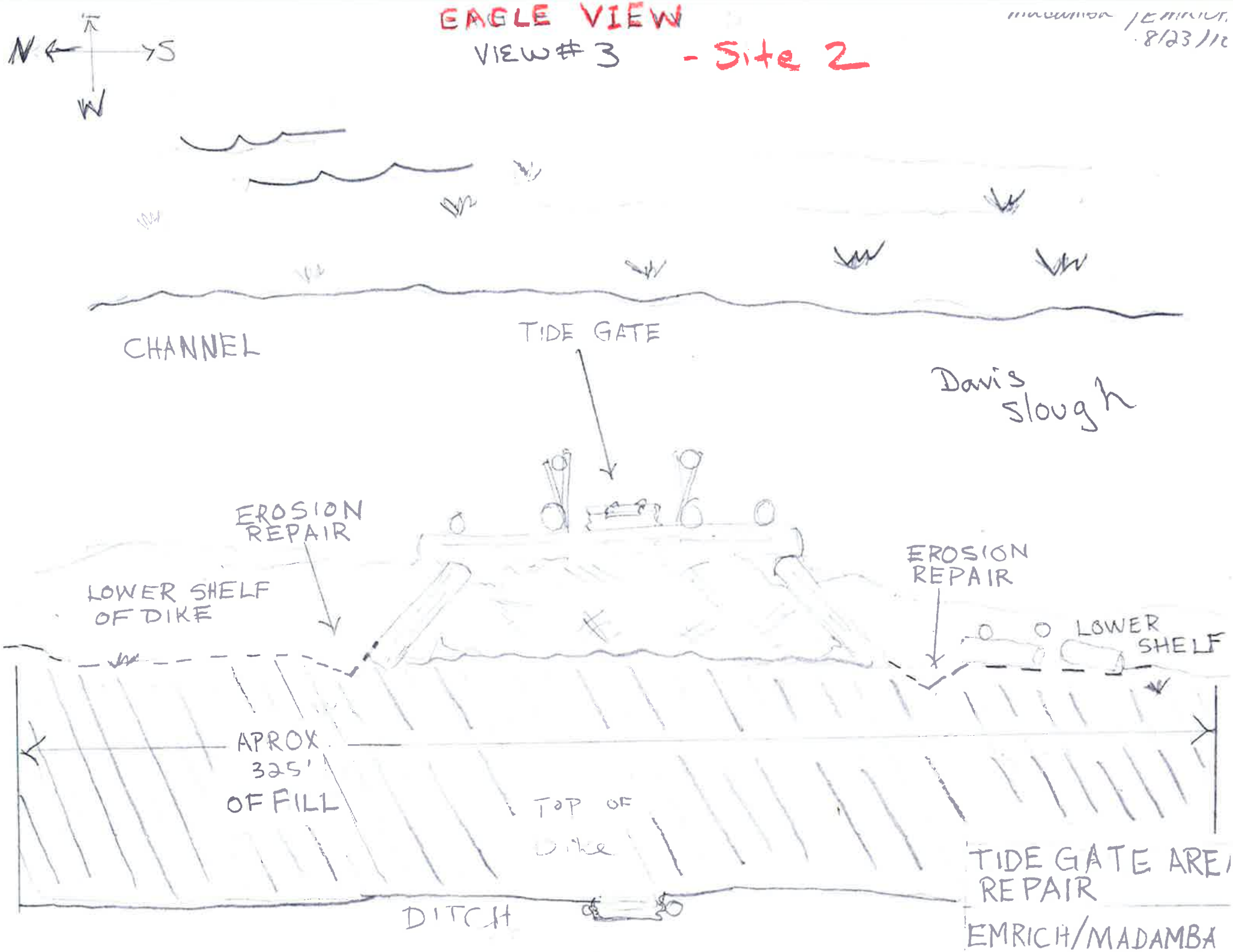
SLICE - CROSS SECTION - Site 2
VIEW # 2



BASE OF DIKE INTACT

8/23/10
MADAMBA/EMRICH

EAGLE VIEW

VIEW #3 - Site 2

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