



WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Application for Use of State-owned Aquatic Lands

Applicant Name: PUD No. 1 of Snohomish County
County: Island County
Water Body: Admiralty Bay
Type of Authorization - Use: Lease – Pilot Tidal Energy
Authorization Number: 20-088952
Term: 5 years
Description: This agreement will allow the use of State-owned aquatic lands for the sole purpose of a Tidal Energy Pilot Project. It is located in Admiralty Bay, in Island County, Washington.



WASHINGTON STATE DEPARTMENT OF
Natural Resources
 Peter Goldmark - Commissioner of Public Lands

APPLICATION FOR AUTHORIZATION TO USE STATE-OWNED AQUATIC LANDS

No work can be started on the project area until a use authorization has been granted by the state Department of Natural Resources

I. SUBMISSION OF APPLICATION

This application form will be reviewed by the state Department of Natural Resources upon receipt at the address given below, and also posted on the DNR website as public information. Applicants will be notified in writing if the application will be accepted for further review. However, this application may be rejected at any time before signed execution of a use authorization.

APPLICATION MUST BE FILLED OUT IN BLUE OR BLACK PEN

Please send the completed application form to your region land manager at:

Washington State Department of Natural Resources
 [Region/District Address]

Enclose a \$25.00 non-refundable application processing fee with the application. **(This fee is not required for local, state, and other government agencies).**

II. APPLICANT INFORMATION

Date of Application: May 22, 2012

Authorization to be Issued To (how name is to appear in the lease document): PUD No. 1 of Snohomish County

Applicant's Representative: Craig Collar

Relationship to Applicant: Senior Manager, Energy Resource Development

Address: P.O. Box 1107

City: Everett

State: WA

Zip Code: 98203

Telephone: 425-783-1825

Fax: 425-391-6977

E-Mail: cwcollar@snopud.com

FOR OFFICIAL USE ONLY

Support staff: Application Fee Received JARPA Received

Date: 2/22/2012

Land Manager: New Application Renewal Application

Land Manager Initials _____

Land Manager Type: (20, 21, 22, 23, 31, 51)

NaturE Use Code _____

Land Records: New Application Number _____; Trust _____; County _____; AQR Plate No. _____

II. APPLICANT INFORMATION cont'Department of Revenue Tax *Registration Number (Unified Business Identifier) is **Required**: 91-6001034Which of the following applies to Applicant (**Check One** and **Attach written authority to sign** - bylaws, power of attorney, etc):

Corporation <input type="checkbox"/> State of Registration:	Limited Partnership <input type="checkbox"/> State of Registration:	General Partnership <input type="checkbox"/> State of Registration:
--	--	--

Sole Proprietorship <input type="checkbox"/>	Marital Community Spouse: <input type="checkbox"/>	Government Agency <input type="checkbox"/>
--	--	--

Other (Please Explain:) Public Utility District (Municipal Corporation)Has the site use been authorized before or is it currently under lease? Yes Lease Number:No Don't Know **III. LOCATION**The Body of Water on which the state property is located:
Puget Sound – Admiralty Inlet

County in which the state property is located: Island

Government Lot:

Section: 22

Township: 31N

Range: 01

E or W **Note:** A legal property survey including the legal description and other information about the property is **required** to obtain a use authorization. WA DNR survey requirements are attached to this form. The survey plat will be attached to the lease/easement as Exhibit A. **DO NOT HAVE THIS SURVEY CONDUCTED UNTIL YOU HAVE BEEN NOTIFIED IN WRITING THAT THE APPLICATION HAS BEEN ACCEPTED FOR PROCESSING.**

Physical description of Project Area (For example, Marsh, Tideflat adjacent to the Chehalis River, etc.): Bed of Puget Sound, and shorelands adjacent to Puget Sound.

Name of Owner(s) of Uplands, Shorelands, and/or Tidelands shoreward and adjacent to the Property: There are several land owners adjacent to Admiralty Inlet. Ms. Jessie Valentine owns the shorelands that will be used for the project.

Address: 13254 SR-20

City: Coupeville

State: WA

Zip Code: 98239

Phone Number:

Fax Number

E-mail:

Note: Except for property located within established Harbor Areas, proof of ownership, or authorization to use the adjacent tideland, shoreland, or upland property may be required. If the applicant is the owner of the adjacent land, attach a copy of the deed.

County Parcel No(s). for adjacent properties, upland, and/or adjacent tideland properties: S6370-00-62001-0

IV. USE OF PROPERTY

Describe, in detail, the proposed use of the Property:

The proposed project is the Admiralty Inlet Pilot Tidal Project. This project would temporarily place two 6-meter diameter tidal energy turbines, two electrical transmission and data cables, and two semi-permanent anchors in a high-current area approximately 58 meters deep and 1 kilometer offshore of Admiralty Head, (Whidbey Island) Washington. The electrical cables will be directly laid on the sea floor to approximately the 19-meter depth contour, at which point they will be connected to shore through a horizontally directionally drilled (HDD) conduit. The project also includes one 720 square foot power control building to house electrical equipment. The structure will be constructed on private property approximately 320 feet from the OHWM.

The primary goal of this pilot project is to conduct research and gather data relevant to evaluating viability of tidal energy generation in the future.

Is or will the Property be subleased to another party? Yes No
If yes, submit a copy of the sublease agreement.

What are the current and past uses of the site? The marine property is located within Admiralty Inlet, a commercial waterway. The on-shore property is privately owned and is currently residential use.

Do you have any knowledge of contamination of the site by toxic or hazardous substances, or of past uses or practices that might have lead to contamination by such substances? Yes No
If so, please explain:

Do you know if any fill material has been placed on the property in question? Yes No
If yes, please explain:

V. IMPROVEMENTS

Physical improvements are structures placed on the land that cannot be removed without damage to the land. Examples of such structures include: pilings, dolphins, piers, wharves, piling-supported buildings, structures built on fill or concrete foundations, buried pipelines and cables, and support structures for bridges.

What physical improvements currently exist on the site? (Photos may be required.) The on-shore private property currently contains one single family residence and one detached garage. The marine portion of the site does not currently contain physical improvements.

If there are physical improvements currently on the site, who owns them? The on-shore property and improvements thereupon are privately owned by Ms. Jessie Valentine.

If there are physical improvements currently on the site, describe their condition: The current residence is a historic property built in 1910. It has been remodeled and is currently in good condition. The detached garage was added at an unknown later date and is currently in good condition.

Which, if any, of the existing physical improvements will be removed, remodeled, or reconstructed?

None of the existing physical improvements will be modified for this project.

Describe any physical improvements that the applicant is proposing to construct on the site:

The proposed pilot project will include the temporary installation of two 6-meter diameter tidal turbines approximately 1 kilometer offshore and two subsea electrical transmission cables running from the turbine locations to approximately 19 meters offshore, where they will be connected to shore underground through an HDD conduit. The turbines and subsea cables will be placed directly on the sea floor with no pinning or piling proposed. The turbines will be removed at the completion of the project license (maximum of 10-years).

Physical improvements as defined above will include two semi-permanent anchors to aid in post-installation monitoring of the turbines, and the HDD portion of the subsea cable. A subsea cable termination vault will be installed on the private property where the cable will be connected to existing Puget Sound Energy electrical infrastructure.

An approximately 720 square foot power control building is also proposed as part of the project, however it will be located approximately 320 feet landward of the OHWM. The building will house electrical equipment necessary to control the power generated by the turbines. At the conclusion of the project, the equipment will be removed and the structure will be retained by the property owner for use as a garage.

Has any fill material been placed on the site? Yes No

If Yes, please describe:

VI. LOCAL, STATE, AND FEDERAL REGULATORY PERMITS Copies of all Government Regulatory Permits, or Permit Waivers Are Required Before Issuance of a DNR Use Authorization. Your project may require all or some of the following:

Please include the following permit applications, permits, or waivers with the application:

JARPA (Joint Aquatic Resource Permit Application) - This one form is used to apply for all of the following individual permits:

1. **Section 10 Permit** (Required by the US Army Corps of Engineers for any work in or affecting navigable waters, e.g., floats, docks, piers, dredging, pilings, bridges, overhead power lines.)
2. **Shoreline Substantial Development, Conditional Use, Variance Permit or Exemption** (Issued by Local Government, and is required for work or activity in the 100 year flood plain, or within 200 feet of the Ordinary High Water mark of certain waters; and which included any one of the following: dumping, drilling, dredging, filling, placement or alteration of structures or any activity which substantially interferes with normal public use of the waters.)
3. **Hydraulic Project Approval** (Required by the Department of Fish and Wildlife if the project includes work that will use, divert, obstruct, or change the natural flow or bed of any fresh or salt water of the state.)
4. **Section 404 Permit** (Required by the US Army Corps of Engineers if your project will discharge or excavate any dredged or fill material waterward of the Ordinary High Water mark or the Mean Higher High Tide Line in tidal areas.)
5. **Section 401 Water Quality Certification** (Required by the Department of Ecology if a Section 404 permit is required.)

NPDES (National Pollutant Discharge Elimination System Permit) - Required by the Department of Ecology under delegated authority from the Federal Environmental Protection Agency for projects that include the discharge of fluid on or

into surface water.

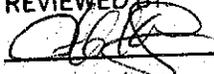
SEPA (State Environmental Policy Act) Checklist and Environmental Assessments - When you submit a permit application to any agency, if the project is not exempt, the lead agency will ask you to fill out an environmental checklist. Based on checklist answers and the reviewers' knowledge of the project site, agency personnel will determine the types of impacts the project may have on the environment. The agency assessments may be the following forms: Determination of Non-significance, Determination of Significance, scoping documents, draft or final Environmental Impact Statements (EIS) or others prepared for the purpose of compliance.

Describe any habitat mitigation required by any of the permitting agencies identified above and identify where such mitigation is proposed to occur: The currently proposed mitigation is described in the Final License Application filed with the Federal Energy Regulatory Commission (FERC) on March 1, 2012 (Docket No. P-12690). FERC is expected to issue its NEPA documentation, including any additional mitigation requirements, in late summer or early fall 2012. The District is lead agency for SEPA, and we expect to issue our SEPA determination, including any additional mitigation requirements, in late summer or early fall 2012.

All answers and statements are true and correct to the best of my knowledge.

Applicant Name (please print): Craig Collar, PUD No. 1 of Snohomish County	Title: Senior Manager, Energy Resource Development
Applicant or Authorized Signature: 	Date: 5/31/12

REVIEWED BY:



DATE: 5/31/2012

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS FOR RECORDS OF SURVEY FOR LEASES AND EASEMENTS

Records of Survey are required for easements and leases granted by the department for:

- County roads
- Highways
- Easements across high value lands
- Easements across transition lands
- Utilities
- Upland leases
- Communication sites
- Drainage or irrigation easements
- Railroads
- Aquatic land uses: exemptions are provided for recreational docks and mooring buoys per RCW 79.105.430 and for those permits issued as a Right of Entry
- Other grants as determined by the department based upon site specific considerations

The applicant is responsible for:

- All costs and work associated with creating, submitting, revising and recording the Record of Survey
- Submitting a preliminary Record of Survey for review and approval by the department prior to approval of the agreement.
- Recording the final Record of Survey with the county auditor's office.
- Submitting a digital copy in AutoCAD.DWG or DXF (drawing exchange format) of the final survey.
- Submitting two full size copies and one 8 ½ X 11" copy and of the recorded survey including the auditor's recording information to the department.

A Record of Survey must:

1. **Be produced by a licensed surveyor.**
2. **Meet the requirements of Title 58 RCW and Chapter 332-130 WAC.**
3. Include the name of the applicant, the purpose of the easement or lease and the DNR easement or lease number.
4. Clearly show easement or lease boundaries with distances and directions of all boundary lines.
5. Show the easement or lease area to an accuracy of (\pm) 0.5% of the total area or (\pm) 10 square feet, whichever is greater.
6. **(Not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean)** Indicate the acreage encompassed by the lease or easement within each quarter-quarter section or government lot.
7. Show distances and directions from two or more controlling corners of a recorded subdivision, recorded survey or government survey (GLO) corners.
8. Be related by meridian and coordinate to the Washington Coordinate System NAD'83(1991) by closed ties to NGS Control monuments, or the extension thereof. The designation of the control stations used shall appear on the plat.
9. Include a narrative legal description describing the servient estate (grantor's parcel) on the Record of Survey.
10. Show a detailed plan of improvements to be constructed or already existing on the easement or lease area. All improvements must be shown in sufficient detail to determine what they are used for and to ensure they are entirely within the easement area.
11. Show the location of any proposed utility.
12. **(linear lease or easement)** Show the lineal footage along the centerline.
13. **(linear lease or easement)** Show the complete alignment information and width including any necessary curve data.

A Record of Survey must (cont.):

14. **(Easements or leases crossing a section line or state ownership boundary, not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean)** Provide ties to the centerline of an easement along the section or subdivision line from the nearest appropriate Public Land Survey System (PLSS) section corner, quarter section or subdivision corner, where the easement enters and leaves the section or state ownership.
15. **(Easements or leases falling entirely within one section and not crossing a section line or state ownership boundary)** Provide ties from both end points of the linear easement to PLSS corners or other subdivision corners shall be provided.
16. **(A lease which encroaches on a previously leased site)** Show the boundary for the senior lease in the vicinity of the proposed lease shall also be shown, together with ties between the two leases sufficient to determine the full extent of the encroachments.

Additional Requirements for Communication Site Leases

17. Show ties to the corners of previously monumented communication sites adjacent to, or in the immediate vicinity of the proposed communication site.
18. Show access to the site.
19. Mark the corners of the communication site, as described and granted, with substantial permanent magnetically locatable monuments. The monuments shall be in place and obviously marked on the ground after the construction of installations and improvements.
20. Show the center of any communication site tower by Washington Plane Coordinates, NAD83 (1991), or latitude and longitude. NAD83 datum must be used to determine global location coordinates and must be in **decimal degrees**. Coordinates must have at least **five** decimal places to the right of the decimal point and include a negative longitude.
21. On all communication sites where towers or beam paths are shown, an elevation is required at the base of the tower.
22. Show the tower height, and the height of the antenna or microwave dish and any beam path used shall have the diameter and tilt thereof shown.
23. The elevation shall be derived from an established benchmark in the vicinity of the site, or an elevation designated by the Department of Natural Resources.

Additional Requirements for Aquatic Land Uses

24. The lease of aquatic lands is often subject to preference rights. Applicants and surveyors should carefully determine the direction, and show details of the proration of coves and irregular shoreline.
25. **(lease sites which contain existing or proposed structures and improvements that are classified as a non water-dependent or a water oriented use as described within RCW 79.105.060 and WAC 332-30-106)** Provide the square footage of each structure and improvement.
26. Where applicable, the survey of aquatic lands must show the location of the following lines for:
 - a. Tidal areas –Government meander line, the original and current locations of line of mean high tide, line of mean low tide, and line of extreme low tide. The survey must include the name of tidal bench mark(s) used or describe the alternate method employed for determining a Tidal Datum. **Lease areas which contain tidelands and bedlands** at a minimum must show the location of the line of extreme low tide crossing the lease area. **Lease areas containing bedlands exclusively** may be required to show the relationship to the line of extreme low tide and the -18 foot contour line only.

Additional Requirements for Aquatic Land Uses (cont.):

- b. Lakes – Government meander line, line of ordinary high water (original ordinary high water if the lake has experienced artificial raising or lowering of the water level), and line of ordinary low water (include source of data) and line of navigability if established.
- c. Rivers - Line of ordinary high water and line of ordinary low water (include source of data) and line of navigability if established.
- d. Lots and blocks of platted tide lands or shore lands, inner and outer harbor lines, waterway lines, street boundaries, any local construction limit lines, any dredge or fill areas, and easements of record within the lease site.
- e. All lines must be shown in sufficient detail to compute and show the area of each area of State-owned bedlands, tidelands, shore lands, harbor area, or waterways included within the proposed lease site.

Include any other data necessary for the complete understanding of the information shown on the survey. If, in the opinion of the department, such information is lacking, the survey may be rejected.

Record of Survey Revisions:

- 27. Any differences between the as-built road and the regulation plat must be reflected in a revised Record of Survey and recorded with the county by the applicant.
- 28. When any portion of the completed improvements are located outside of the granted lease site, the as-built locations must be reflected in a revised Record of Survey and legal description. In this instance, a new application for an amended lease site may be required if the as-built location creates adverse impacts. In the case of linear leases across the bed lands of the sound or the ocean, an as-built Record of Survey and a revised legal description of the linear lease must be provided.

Survey Information updated July 2002.

For additional information contact one of the following region offices:

Southeast Region

713 Bowers Rd
Ellensburg, WA 98926-9341
509-925-8510
TTY: 509-925-8527

Northeast Region

P.O. Box 190
225 S Silke Rd
Colville, WA 99114-0190
360-684-7474
TTY: 509-684-7474

Olympic Region

411 Tillicum Ln
Forks, WA 98331-9797
360-374-2800
TTY: 360-374-2819

Pacific Cascade Region

P.O. Box 280
601 Bond Rd
Castle Rock, WA 98611-0280
360-577-2025
TTY: 360-577-2025

Northwest Region

919 N Township St
Sedro-Woolley, WA 98284-9333
360-856-3500
TTY: 360-856-1371

South Puget Sound Region

950 Farman Ave N
Enumclaw, WA 98022-9282
360-825-1631
TTY: 360-825-6381

Snohomish County PUD No. 1
Authorization No. 20-088952
Authorized Use: Lease
Location: Snohomish County



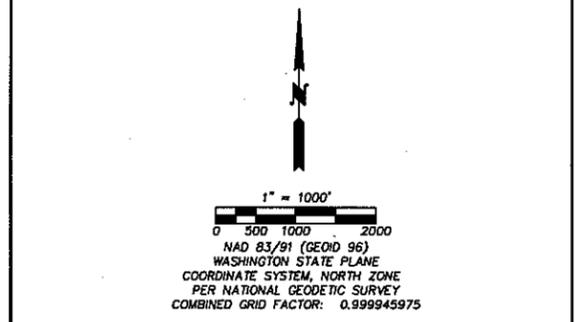
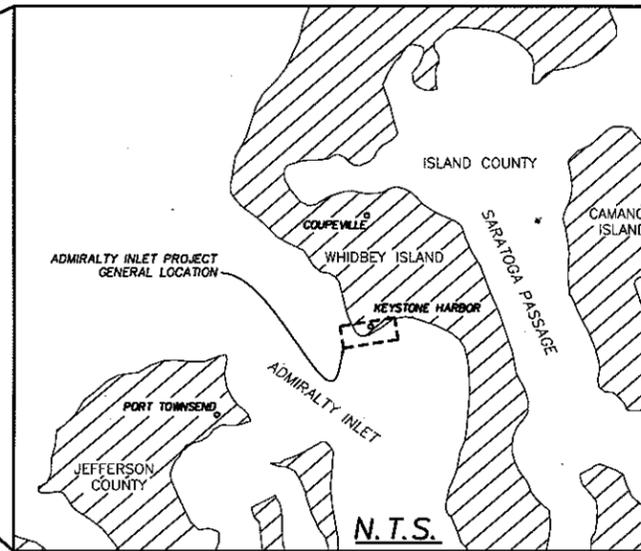
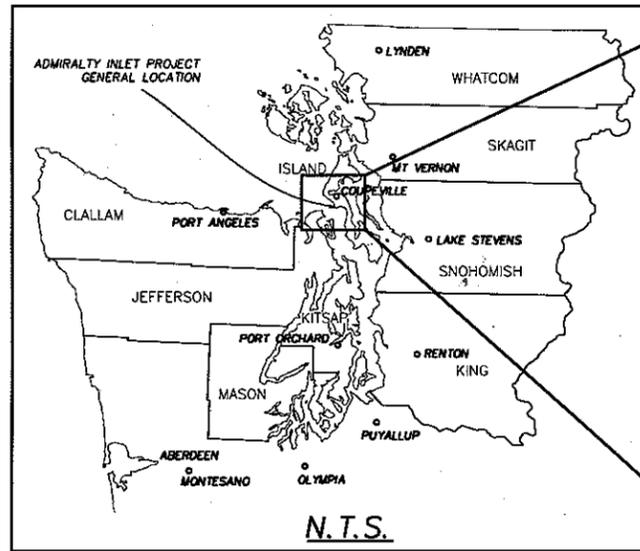
Vicinity Map

Every attempt was made to use the most accurate and current geographic data available. However, due to multiple sources, scales, and the currency of the data used to develop this map Washington Department of Natural Resources cannot accept responsibility for errors and omissions in the data. Furthermore, this data is not survey grade information and cannot be substituted for an official survey. Therefore, there are no warranties that accompany this material

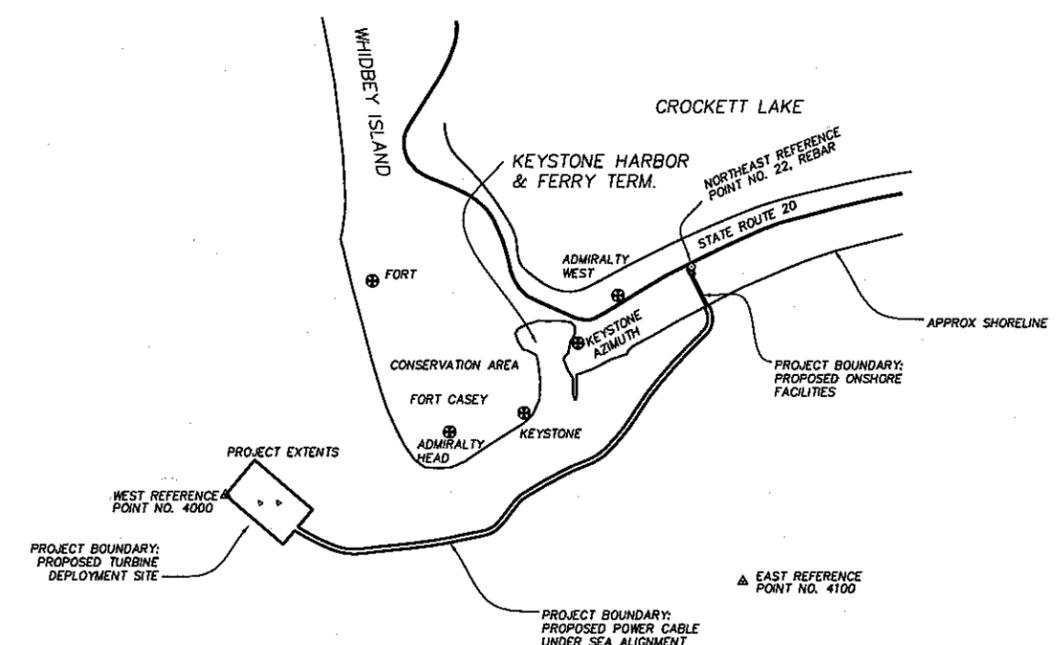
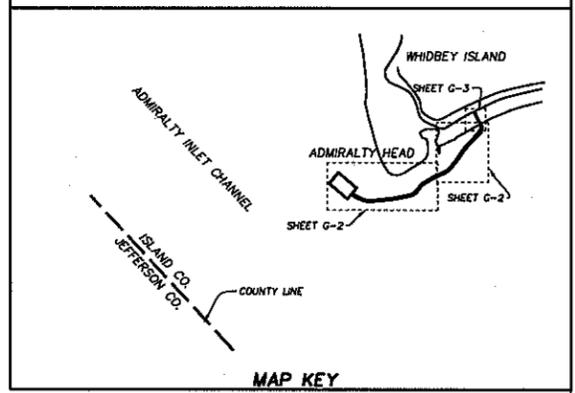
Legal Description
Lease Lat: 48.1509N, Long: -122.6877W
Admiralty Inlet Tidal Pilot Tidal Project

Prepared By: JA Date: 7/25/12

ISLAND COUNTY, WASHINGTON
T 31 N, R 1 E.



- LEGEND**
- ⊕ SURVEY MONUMENT
 - PROPOSED PROJECT BOUNDARY
 - ▲ PROPOSED TURBINE LOCATION



PROJECT REFERENCE POINTS

Point Designation	Northing	Easting	Elevation
NGS FORT	428727.19	1189361.29	
NGS ADMIRALTY HEAD	426853.96	1190329.04	
NGS ADMIRALTY WEST	428547.45	1192435.34	7.03
WSDOT KEYSTONE AZIMUTH	427859.23	1191938.92	12.41
WSDOT KEYSTONE	427092.37	1191283.55	12.81
West Reference Pt 4000	426070.49	1187533.23	
East Reference Pt 4100	425000.00	1194000.00	
Northeast Reference Pt 22	428901.48	1193352.13	8.76

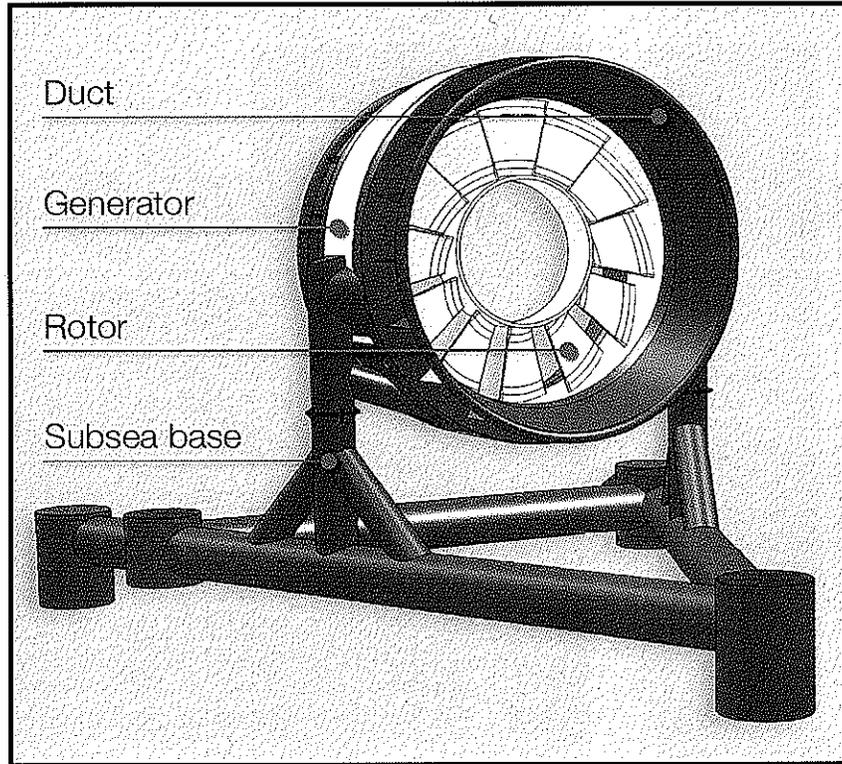
NGS denotes National Geodetic Survey Monument
WSDOT denotes Washington State Department of Transportation Monument

NOTE:
1. CEII per FERC Regulations- This drawing contains critical energy infrastructure information- do not release.

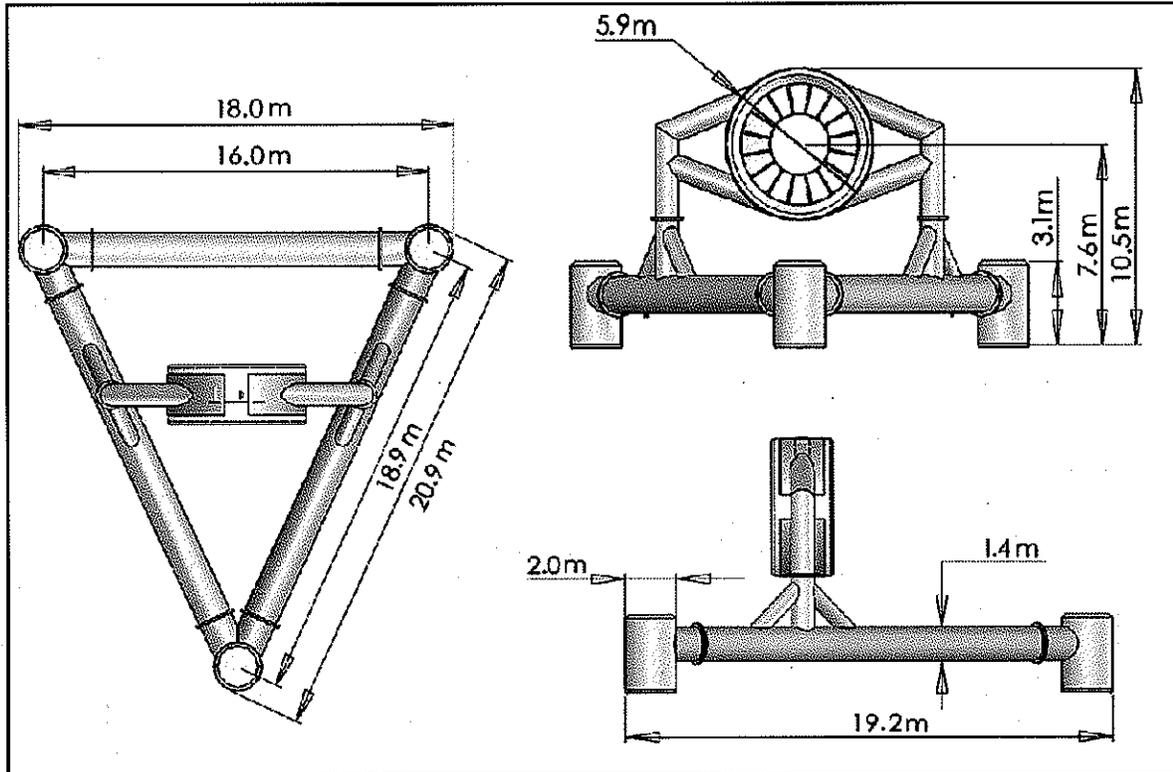
The project boundary on these sheets was developed by Harmsen and Associates using public and private data sources that are identified in the metadata provided. All data sources trace their foundation to 1:24,000 mapping. The portions of the project boundary described by metes and bounds have been reviewed by this surveyor for location, orientation, and accuracy within the 1:24,000 map base.

HARMSEN & ASSOCIATES INC
16778 146th St SE, Ste 104, MONROE, WA 98272
(360)794-7811 (206)343-5903

SNOHOMISH COUNTY PUD PUBLIC UTILITY DISTRICT NO. 1		NO	DFTR T. L. ROBERTS
REV		TASK	CHKR J. MCDANIEL, P.L.S.
FERC PROJECT NO. 12690		SCALE	ENGR E. SCHNODDER, P.E.
DATE SEPTEMBER 2011		APVD	
ADMIRALTY INLET HYDROELECTRIC TIDAL PROJECT AKA ADMIRALTY INLET FERC NO. 12690 PUBLIC UTILITY DISTRICT NO. 1 OF SNOHOMISH COUNTY, WASHINGTON			
OVERALL SITE & CONTROL - PLAN			
EXHIBIT: G		SHEET: 1	



OpenHydro Turbine



OpenHydro Turbine – Front, Side, and Plan Views
(dimensions in meters)