

**SAN JUAN COUNTY
HEARING EXAMINER**

FINDINGS, CONCLUSIONS AND DECISION

Applicant: Yacht Haven Water Association c/o Robert Shorett
2021 Yacht Haven Road
Friday Harbor, WA 98250

File No.: PSJ000-11-0001

Request: Shoreline Substantial Development Permit

Parcel No: 462632001, 462650046, 462650047

Location: 2123 and 2002 Yacht Haven Road
San Juan Island

Summary of Proposal: Desalination facility

Shoreline Designation: Rural Residential

Hearing Date: April 7, 2011

Application Policies and Regulations: SJCC 18.50.350

Decision: Approved subject to conditions.

1 **BEFORE THE HEARING EXAMINER FOR THE COUNTY**
2 **OF SAN JUAN**

3 Phil Olbrechts, Hearing Examiner

4 RE: Warren Lueth	
5 Shoreline Substantial 6 Development Permit (PSJ000-11-0001)	7 FINDINGS OF FACT, CONCLUSIONS 8 OF LAW AND DECISION.

9 **INTRODUCTION**

10 The Applicant has applied for approval of a shoreline substantial development permit
11 to construct a desalination facility. The proposal is approved subject to conditions.

12 **TESTIMONY**

13 Julie Thompson, County planner, submitted an approved hydraulic permit as Exhibit
14 8. She noted that the application is to install a desalination system for up to 14
15 connections. She noted the treatment plant will be placed within an already existing
16 building so there won't be much visible construction up there. The Applicant will
17 still need to get department of health approval.

18 The Examiner asked what dimensions the storage tank would have. Francine Shaw,
19 the Applicant's agent, noted that the storage tank for treated water has a volume of
20 23,500 gallons, has a 12 foot diameter and is 15 feet high. The proposed tank will be
21 located adjacent to an existing pump house that will house the desalination treatment
22 equipment. The Examiner asked if there were any existing trails or driveways in the
23 upland portions of the site that could accommodate the desalination lines. Ms. Shaw
24 noted that a large portion of the lines will be located within the right of way of Yacht
25 Haven road, but a permit is required if the lines extend for more than 500 feet along
the road so the lines were diverted to a utility easement to avoid that requirement.
The Examiner confirmed from Ms. Shaw that the facility will have a diffuser. The
diffuser will be located at least 16 feet from any eelgrass bed.

Ms. Thompson requested a condition requiring inspection once the facility is
completed and, upon inquiring from the Examiner, agreed that a condition requiring
off-site cleaning of the system filters be required or that an approved on-site cleaning
system be used¹.

¹ After the hearing the Examiner found that the ESA consultation, Ex. 5, p. 13, already contains
measures for cleaning the filters. Compliance with the mitigation measures identified in the ESA
consultation will be made a condition of approval.

1 Ms. Shaw noted there have been some design changes as a result of going through the
2 HPA permit review process. There is no anchoring block as depicted in Figure 10a of
3 the application materials (Ex. 3). The revisions are noted in the letter marked as Ex.
4

4 EXHIBITS

5 All documents are admitted as identified in "Exhibits for Yacht Haven Desal System"
6 attached to the 3/21/11 staff report for this application. At hearing the hydraulic
7 permit approval for the project was admitted as Exhibit 8.

7 FINDINGS OF FACT

8 **Procedural:**

9 1. Applicant. The Applicant is Yacht Haven Water Association, c/o Robert
10 Shorett.

11 2. Hearing. The Hearing Examiner conducted a hearing on the subject
12 application on April 7, 2011.

13 **Substantive:**

14 3. Site and Proposal Description. The Yacht Haven Water Association is
15 proposing to install a reverse osmosis desalination system to serve 13 lots within the
16 Yacht Haven subdivision and up to 14 connections total to supply domestic water to
17 the subdivision. The quality of the existing water source no longer meets the
18 minimum standard for domestic water.

19 The system is designed to withdraw a maximum of 12,000 gallons of seawater per
20 day from Mosquito Pass, producing up to 3,400 gallons of potable water and 8,600
21 gallons of discharge water per day.

22 The treatment plant will be located approximately 380 feet landward of the ordinary
23 high water mark in the existing community well pump house. The 23,500 gallon
24 concrete storage tank will also be constructed on this parcel adjacent to the treatment
25 house.

4. Characteristics of the Area. The neighborhood is rural and residential in
nature, with lots of forested land to the east.

5. Adverse Impacts of Proposed Use. The Examiner finds that the proposed
project will have no significant adverse impacts. The project will not be visible from
the shoreline, except for the 15 foot, 12 foot wide storage tank that will be built
adjacent to an existing pump house. The project will not increase saline levels to any

1 level that would adversely impact aquatic life – the ESA consultation analysis
2 concludes that with the proposed diffuser there will be an undetectable increase in
3 saline levels and “that the distribution and abundance of organisms are likely to be
4 unchanged and so effects are expected to be insignificant and/or discountable.” Ex.
5 5, p. 23. The project will also be conditioned to insure that cleaning of system filters
6 does not pose any threat to water quality and conditions are added to restore the site
7 after construction and to prevent erosion during construction.

8 CONCLUSIONS OF LAW

9 Procedural:

10 1. Authority of Hearing Examiner. The Hearing Examiner issues final
11 decisions on shoreline substantial development permit applications after holding a
12 public hearing. SJCC 18.80.110(E) and SJCC 18.80.020.

13 Substantive:

14 2. Shoreline Designation. Rural Residential. The shoreline also qualifies as
15 a shoreline of statewide significance under the Shoreline Management Act, Chapter
16 90.58 RCW.

17 3. Comprehensive Plan and Zoning Designations. The subject property is
18 designated as Rural Residential and Rural Farm Forest.

19 4. Permit Review Criteria. The costs of the development presumably exceed
20 those of the exemption levels set in WAC 173-27-040(2)(a) so the project must
21 acquire a shoreline substantial development permit. SJCC 18.80.110(H) establishes
22 the criteria for approval of shoreline substantial development permits. The criteria
23 include the policies of the Shoreline Management Act (Chapter 90.58 RCW), the
24 policies and use regulations of the San Juan County Shoreline Master Program, and
25 the requirements of the San Juan Municipal Code and Comprehensive Plan. The
applicable policies and regulations are quoted in italics below and applied through
conclusions of law.

RCW 90.58.020 Use Preferences

*This policy (Shoreline Management Act policy) is designed to insure the development
of these shorelines (of the state) in a manner which, while allowing for limited
reduction of rights of the public in the navigable waters, will promote and enhance
the public interest. This policy contemplates protecting against adverse effects to the
public health, the land and its vegetation and wildlife, and the waters of the state and
their aquatic life, while protecting generally public rights of navigation and corollary
rights incidental thereto.*

1 5. As discussed in the findings of fact, the project will have no appreciable
2 impact on aquatic resources. The intake and discharge lines are largely underground
and will have no impact on shoreline use or access.

3 **RCW 90.58.020(1)**

4 *Recognize and protect the statewide interest over local interest;*

5 6. The project has been found to have no adverse impacts and as such the
6 statewide interest in the preservation of the shoreline and surrounding habitats is
protected, in addition to the local interest of providing usable potable water.

7 **RCW 90.58.020(2)**

8 *Preserve the natural character of the shoreline;*

9 7. There will be no discernable impact on natural character. Salinity levels
10 will not be materially altered and the project will not be visible from the shoreline
except for the storage tank.

11 **RCW 90.58.020(3)**

12 *Result in long term over short term benefit;*

13 8. The project will benefit up to fourteen homes that are currently
14 experiencing saline intrusion into their freshwater wells. As previously determined,
there will be no impact to the shoreline as a result of this project. Given these
15 circumstances, the project results in long term over short term benefit.

16 **RCW 90.58.020(4)**

17 *Protect the resources and ecology of the shoreline;*

18 9. There are no adverse environmental impacts to the shoreline associated
with this project.

19 **RCW 90.58.020(5)**

20 *Increase public access to publicly owned areas of the shorelines;*

21 10. The project does not pertain to a publicly owned area of the shoreline.

22 **RCW 90.58.020(6)**

23 *Increase recreational opportunities for the public in the shoreline;*

24 11. This project will have no impact on recreational opportunities for the
25 public in the shoreline since most of its facilities are located underground within the
shoreline area.

San Juan County Code Regulations

1 **SJCC 18.50.350(A)(1):** *In shoreline areas, utility transmission lines, pipelines, and*
2 *cables must be placed underground unless demonstrated to be infeasible. Further,*
3 *such lines must utilize existing rights-of-way whenever possible. Proposals for new*
4 *corridors in shoreline areas involving water crossings must fully substantiate the*
5 *infeasibility of existing routes:*

6 12. The intake and outtake pipes will be underground.

7 **SJCC 18.50.350(A)(2):** *Utility development must, through coordination with*
8 *government agencies, provide for compatible multiple use of sites and rights-of-way.*
9 *Such uses include shoreline access points, trails, and other forms of recreation and*
10 *transportation systems, providing such uses will not unduly interfere with utility*
11 *operations or endanger public health and safety.*

12 13. The proposal will be used by up to fourteen homes (13 homes that
13 currently exist with an option for one additional connection).

14 **SJCC 18.50.350(A)(3):** *Sites disturbed for utility installation must be stabilized*
15 *during and following construction to avoid adverse impacts from erosion.*

16 14. The project will be conditioned to comply with this requirement. As
17 proposed in other similar project, typical stormwater runoff prevention controls
18 should be used during construction as found necessary by staff, including placement
19 of straw wattles, seeding and mulching.

20 **SJCC 18.50.350(A)(4):** *Immediately following the completion of utilities installation*
21 *or maintenance projects on shorelines, disturbed areas must be restored to project*
22 *configurations, replanted with local vegetation, and the vegetation maintained until it*
23 *is firmly established.*

24 15. As proposed and as conditioned.

25 **SJCC 18.50.350(A)(5):** *Utility lines, pipes, stations, plants, and other apparatus*
shall not be installed in shoreline areas unless there is no feasible alternative.

16. There is no feasible alternative – the project is dependent upon acquisition
of seawater.

SJCC 18.50.350(A)(6): *Utility lines shall be installed underground. Desalination*
intake and discharge lines shall be located underground wherever feasible, except for
that portion located underneath or along any docks, piers, walkways, stairs, or other
shoreline improvements located on the site.

17. As proposed.

1 **SJCC 18.50.350(A)(8):** *Where installation of utility lines, pipes, or other apparatus*
2 *in shoreline areas is approved, clearing shall be confined to that which is absolutely*
3 *necessary to permit the installation and to prevent interference by vegetation once the*
4 *system is in operation.*

5 18. As discussed in the ESA consultation, in sub-tidal areas, the pipes and
6 associated structures to anchor them will likely displace macro algae, but it is likely
7 that the macro algae will recolonize disturbed areas only resulting in a temporary
8 displacement. It is unclear whether any vegetation would be disturbed in intertidal or
9 upland areas, but the conditions of approval require re-vegetation of any cleared
10 areas. Further, the work corridor will be limited to a strip ten feet wide on either side
11 of the pipes, which appears to be the minimum reasonably necessary for installation.

12 **SJCC 18.50.350(9):** *Where utility lines, pipes, or other apparatus must cross*
13 *shoreline areas, they shall do so by the route which will cause the least damage to the*
14 *shoreline, both physically and visually.*

15 19. The pipes will cause inconsequential damage to the shoreline and the route
16 appears to be the least damaging. Since the pipes will largely be underground, there
17 are no significant visual impacts associated with the proposal.

18 **SJCC 18.50.350(A)(10):** *Drainage and surface runoff from utility installation areas*
19 *shall be controlled so that pollutants will not be carried into water bodies.*

20 20. The project is conditioned to implement drainage and surface runoff
21 control measures.

22 **SJCC 18.50.350(A)(11):** *Applications for outfalls and underwater pipelines that*
23 *transport substances harmful or potentially harmful to aquatic life or water quality*
24 *shall not be approved unless the applicant has demonstrated that no significant*
25 *adverse impacts will result. Desalination and reverse osmosis brine discharge is not*
considered to be potentially harmful to aquatic life or water quality provided all
required state and federal requirements are met.

26 21. The project is for desalination and is conditioned on meeting all required
27 state and federal requirements.

28 **SJCC 18.50.350(B)(1):** *Desalination lines must be located along existing paths,*
29 *trails, or connected to existing docks and beach access structures wherever feasible.*

30 22. There is no existing beach access structure to connect to in shoreline areas.
31 The lines run along developed public right of way and utility easements in the upland
32 areas. The criterion is satisfied.

1 **SJCC 18.50.350(B)(2):** *Desalination and reverse osmosis systems on shorelines that*
2 *are known or demonstrated to be eroding bluffs, unstable bluffs, eroding beaches, or*
3 *exposed cliffs, will require design and engineering which will assure that no*
significant visual or environmental impacts will be created and that effects on the
natural shoreline conditions will be minimized.

4 23. The Coastal Zone Atlas shows the shoreline to be stable and rocky. As
5 noted previously, there are no adverse aesthetic impacts associated with the proposal.

6 **SJCC 18.50.350(B)(3):** *All desalination and reverse osmosis production equipment*
7 *and necessary pumping equipment, utility connections, and pipelines must be located*
8 *and designed to blend in with the natural surroundings to the extent feasible to*
reduce visual impacts. Existing vegetation and terrain features must be used
whenever possible for screening.

9 24. All of the upland lines will be underground. The reverse osmosis system
10 itself will be enclosed in an existing building and not visible to the outside except for
11 the storage tank.

12 **SJCC 18.50.350(B)(4):** *Desalination and reverse osmosis facilities must not*
13 *impede public access to public tidelands or materially interfere with normal public*
use of public waters.

14 25. Since the pipes will be underground or under water, there will be no
15 interference with public use or access of the shoreline.

16 **SJCC 18.50.350(B)(5):** *Desalination and reverse osmosis systems will not be*
17 *allowed for the purposes of providing the primary water supply within new*
18 *subdivisions and short subdivisions. Such facilities may be allowed for the purpose of*
supplying water for an established community water system.

19 26. A new subdivision is not involved. The proposal will be used to serve
20 existing homes.

21 **SJCC 18.50.350(B)(6):** *Desalination intake and discharge lines shall be located*
22 *underground wherever feasible, except for that portion located underneath or along*
any docks, piers, walkways, stairs, or other shoreline improvements located on the
site.

23 27. The intake and discharge lines will be underground, except of course at
24 the intake and discharge points located underwater.

25 **SJCC 18.50.350(B)(7):** *Desalination and reverse osmosis brine discharge is not*
considered to be potentially harmful to aquatic life or water quality provided all
required state and federal requirements are met.

1 28. The staff report notes that all applicable regulations are satisfied and there
2 is no evidence to the contrary. The project will also be conditioned to satisfy all
3 applicable regulations.

4 **SJCC 18.50.350(B)(8):** *All desalination and reverse osmosis installations shall
5 comply with the following regulations:*

6 *a. The intake and discharge lines must be trenched, run, or located together except
7 where necessary to provide adequate separation between intake and discharged
8 water.*

9 *b. The intake and discharge lines must be engineered so as to not materially interfere
10 with normal public use of public tidelands or navigation. The intake point shall not
11 float on the surface.*

12 *c. Intake and discharge lines must not be placed through or over any known or
13 discovered archaeological resources, unless the location is approved by the
14 Washington Office of Archaeology and Historic Preservation.*

15 *d. The use of existing wells with salt water contamination or intrusion as the intake
16 source for desalination or reverse osmosis systems is prohibited unless specifically
17 authorized by the County department of health and community services.*

18 *e. The use of pre-filtration beach wells located landward of the line of mean lower
19 low water is allowed provided all state and federal requirements are met.*

20 29. The proposal meets all the regulations quoted above. The Applicant
21 completed an archaeological survey that concluded that no archaeological resources
22 are at the project site. The Samish Nation reviewed the archaeological survey and
23 has no concerns with the project at this time.

24 **SJCC 18.50.350(C)(3)(Regulation by Environment):** *Conservancy. Utility
25 transmission, distribution, or collection facilities are permitted in the conservancy
environment subject to the policies and regulations contained in this master program;
provided, that the applicant can demonstrate that no feasible alternative exists, and
that the utility line shall follow a route which will minimize the adverse impacts on
the physical and visual resources of the area. Desalination and reverse osmosis
systems shall be permitted in the conservancy environment subject to the policies and
general regulations contained in this master program.*

30. As discussed in the preceding conclusions of law, the proposal is
consistent with the policies and regulations of the shoreline master program, the route
chosen by the Applicant for the piping of the project minimizes impacts and no

1 feasible alternative to desalination exists due to problems with the ground water
2 available to the Applicant's subdivision.

3 **DECISION**

4 The proposed project, as depicted in the application materials (Ex. 3) and modified
5 (Ex.4) is consistent with all the criteria for a shoreline substantial development
6 permit. The proposal as modified is approved subject to the following conditions:

- 7 1. The project shall implement all conservation and mitigation measures
8 identified in the ESA consultation, Exhibit 5.
- 9 2. Only native materials shall be used to refill the trenching of the project and all
10 activities shall maintain the natural contours of the site.
- 11 3. Upon completion of the project the Applicant shall schedule an inspection
12 with staff for purposes of verifying compliance with this decision and
13 applicable regulations.
- 14 4. Typical stormwater runoff control measures will be implemented during
15 construction as approved by staff, including straw wattles, seeding and
16 mulching as needed.
- 17 5. Immediately following the completion of pipe installation, disturbed areas
18 must be restored to pre-project conditions and any removed vegetation
19 (excluding macro algae) must be replanted and maintained until it is firmly
20 established.
- 21 6. The work corridor for pipe installation shall be limited to ten feet on either
22 side of the pipes.
- 23 7. All required state and federal requirements pertaining to desalination shall be
24 met by the project.
- 25 8. A Group B water system design application will need to be reviewed and
approved by Health and Community Services prior to constructing the facility.

Dated this 21st day of April 2011.



Phil Olbrechts
County of San Juan Hearing Examiner

Effective Date, Appeal Right, and Valuation Notices

1 Hearing examiner decisions become effective when mailed or such later date in
2 accordance with the laws and ordinance requirements governing the matter under
3 consideration. SJCC 2.22.170. Before becoming effective, shoreline permits may be

4 This land use decision is final and in accordance with Section 3.70 of the San Juan
5 County Charter. Such decisions are not subject to administrative appeal to the San
6 Juan County Council. See also, SJCC 2.22.100.

7 Depending on the subject matter, this decision may be appealable to the San Juan
8 County Superior Court or to the Washington State Shorelines Hearings Board. State
9 law provides short deadlines and strict procedures for appeals, and failure to timely
10 comply with filing and service requirement may result in dismissal of the appeal. See
11 RCW 36.70C and RCW 90.58. Persons seeking to file an appeal are encouraged to
12 promptly review appeal deadlines and procedural requirements and consult with a
13 private attorney.

14 Affected property owners may request a change in valuation for property tax purposes
15 notwithstanding any program of revaluation.
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