

**FINAL  
ENVIRONMENTAL IMPACT  
STATEMENT  
FOR  
LONG-TERM DEVELOPMENT  
PLAN CONCEPT  
AND SHORT-TERM SUBDIVISION  
PROPOSAL FOR  
SAN JUAN-FIDALGO PROPERTIES**

*Prepared in Compliance with the  
State Environmental Policy Act of 1971  
Chapter 43.21c, Revised Code of Washington*

*SEPA Rules effective April 14, 1984  
Washington Administrative Code*

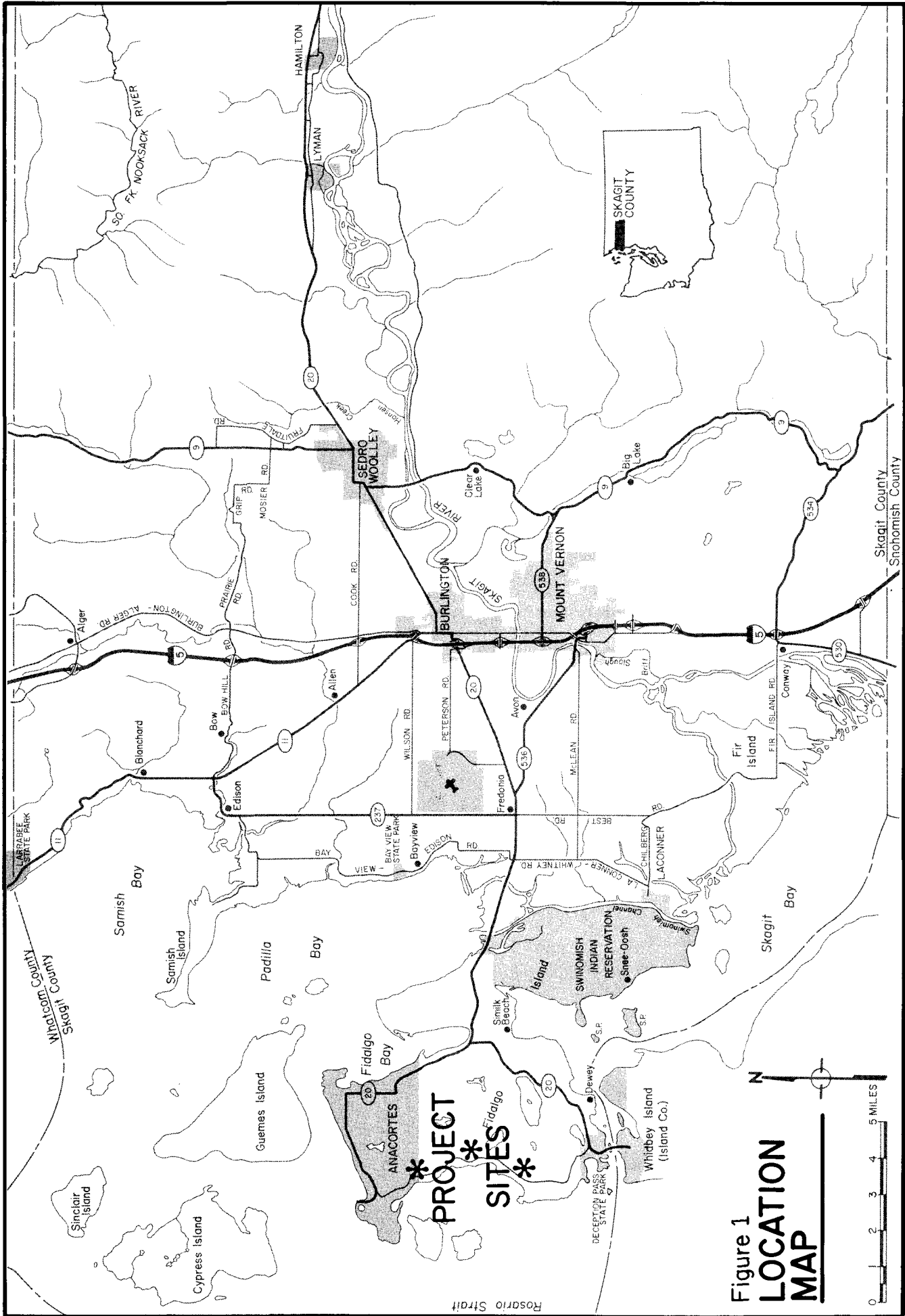
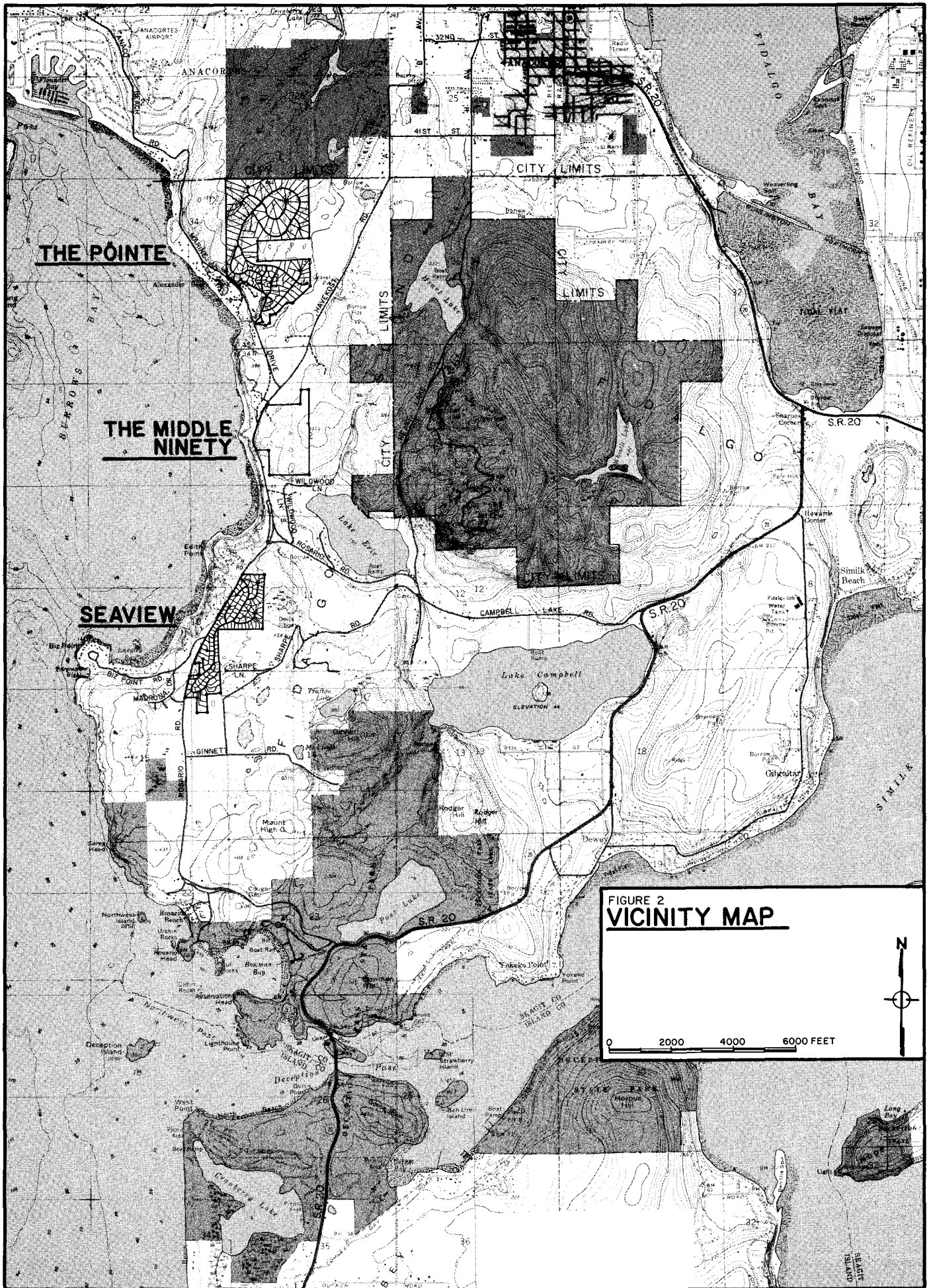


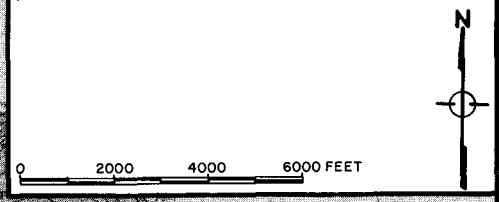
Figure 1  
**LOCATION  
MAP**

**ERRATTA SHEET FOR FINAL EIS  
FOR LONG-TERM DEVELOPMENT PLAN  
CONCEPT AND SHORT-TERM SUBDIVISION  
PROPOSAL FOR SAN JUAN-FIDALGO PROPERTIES**

- Front Cover:       Should read, "SEPA Rules Effective April 4, 1984."
- Page iii:            Date of Issuance should read, "March 28, 1990"
- Page 6:             Last sentence should read, "...as shown on pages 7 and 8."
- Page 30:            Comment letter, number 26 should read, Larry Celustka  
                      Comment letter, number 27 should read, Bricklin and Gendler



**FIGURE 2  
VICINITY MAP**



**FINAL  
ENVIRONMENTAL IMPACT STATEMENT  
FOR  
LONG-TERM DEVELOPMENT  
PLAN CONCEPT  
AND SHORT-TERM SUBDIVISION  
PROPOSAL  
FOR SAN JUAN-FIDALGO PROPERTIES**

This is the Final Environmental Impact Statement (Final EIS) for the proposed development. This Final EIS contains responses to written comments received by the Skagit County Department of Planning and Community Development during the review period for the Draft Environmental Impact Statement (Draft EIS) and comments made at a public hearing on the Draft EIS on November 16, 1989. No changes have been made to the proposal since the date of issuance of the Draft EIS.

Prepared in compliance with the  
State Environmental Policy Act of 1971 Chapter 43.21c,  
Revised Code of Washington

SEPA Rules, Effective April 4, 1984  
Washington Administrative Code

# FACT SHEET

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## Final Environmental Impact Statement

**The Proposal:**

San Juan-Fidalgo Properties has developed a long-term (10-year) development concept for three parcels of property south of Anacortes: The Pointe (188 acres), The Middle Ninety (90 acres) and Seaview (75 acres). Subdivisions at The Pointe (33 lots) and at Seaview (19 lots plus 21 lots approved contingent on satisfactory completion of hydrogeologic study) have been approved in the past and are being developed. Immediate plans (1989) are for application for approximately 30 additional lots at The Pointe (Divisions 3 and 4).

This EIS covers both the immediate or short-term development plans and the long-term development concept which would add 200 to 360 additional lots on the three parcels totalling approximately 353 acres. Please refer to the Long Range Development Plan Concept Map, Figure 3, for graphic illustration. It is intended that this EIS cover the broad, long-term subdivision development concept. Future actions not specifically addressed in this document may require further environmental review and/or adoption of this EIS by reference.

**Applicant:**

San Juan-Fidalgo Properties, Inc.  
P.O. Box 633  
Anacortes, WA 98221

**Lead Agency:**

Skagit County Department of Planning and Community Development

**Responsible Official:**

Betsy Stevenson, Assistant Planning Director

**Contact Person:**

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Leonard & Boudinot, Engineers  
Mount Vernon, WA

**Date of Issuance:**

March 8, 1990

**Location of Draft EIS Background Material:**

Skagit County Department of Planning and Community Development, Room 204  
County Administration Building, Mount Vernon, Washington. Contact: Betsy Stevenson

**Required Licenses and Permits:**

- Preliminary and Final Plat Subdivision Approvals
- Health Unit Septic System Approvals
- Anacortes Water System Extension Approval
- Potential Anacortes Annexation of Contiguous Property Approval
- Highway Access Permits
- Drainage, Sedimentation and Erosion Control Plan Approval
- Del Mar Water System Extension Approval for Seaview Plat
- Hydrogeologic Study Completion for Seaview III Plat and Approval by Skagit County
- Class IV Forest Practices Permit from DNR
- Hydraulics Permit from Department of Fisheries

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# DISTRIBUTION LIST

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# SUMMARY

## Final Environmental Impact Statement

### PROJECT PURPOSE

The objective of the applicants is to develop within a long-term time frame (5 to 10 years), three, physically separate, single family subdivisions for large lot size (approx. 1/2 to more than 1 acre) middle to upper middle income housing. Initial subdivision plats have been approved and developed at The Pointe and Seaview and there are immediate plans for application for approximately 30 additional lots at The Pointe. This Final EIS considers impacts of the long-term plan as well as existing development.

### PROJECT DESCRIPTION

This Final EIS considers the immediate development plans as well as the impacts of the long-term development which would add from 200 to 360 additional lots at three subdivision sites. Development in the range from a low of approximately 200 lots to a high of 360 additional lots will be dependent upon soil conditions and septic tank/drainfield requirements at each site and upon Skagit County review and approval of applications for subdivisions over the long-term development plan. This EIS is generalized since it addresses the long-term impacts of development for which specific subdivision plans have not been prepared. It is intended to provide decision makers and the public with information about potential impacts at the early conceptual stage. As specific development plans are submitted, this EIS will serve as a basis of analysis and additional information and specific studies will be required.

It is proposed that roads within the subdivisions be private and that a "natural" or open drainage system be maintained. Water service, with the exception of Seaview Plats 1-3, would be from the Anacortes water system. Sewer systems would be individual septic tank and drainfields with long-term potential for extension of sanitary sewer from Anacortes.

### EXISTING CONDITIONS, IMPACTS, MITIGATING MEASURES, UNAVOIDABLE ADVERSE IMPACTS

Site topography, which is forested slopes and rough rocky land at The Pointe and Middle Ninety to less steep terrain with gravelly, sandy soils at the Seaview site to the south, will be altered with road construction, building site construction clearing and, in some rocky areas, fill will be required for mound drainfield systems. No significant, unavoidable adverse impacts to Earth elements are identified with the proposal.

No water bodies are contained within the three sites, but drainage from The Pointe's north watershed flows into Lake Chiquita and on the southside drainage from The Pointe flows into a natural drainage course which has perennial flow draining under Marine Drive and into Burrows Bay. Development at The Pointe has potential to degrade water quality and increase the chances of flooding and erosion downslope from Marine Drive. These impacts can be mitigated through adherence to Skagit County's Drainage/Erosion and Sediment Control requirements, but the potential exists. Drainage from the Seaview site area also has potential for flooding and erosion, but the more permeable soils and less steep terrain reduce potential impact and make mitigation measures less difficult. There is also potential for Seaview development to adversely impact water quality of the Del Mar Water System through pollution of ground water sources from drainfield leaching and other pollutants associated with residential development such as fertilizers, pesticides and insecticides. The county has required a hydrogeologic study to determine potential for degradation of the water supply. Such analysis, testing, septic system maintenance and restrictions on toxic applications in the watershed will reduce potential for impacts to the water system, but short of no development in the watershed the potential for pollution cannot be totally avoided.

The proposal will, through clearing, grading and residential use, reduce plant and animal habitat thereby decreasing wildlife numbers in the area. No threatened, rare or endangered species have been identified at the three site areas.

Noise impacts to the quiet, rural area will occur with normal construction activity and construction truck traffic. A limitation on working hours could mitigate noise disturbance.

The proposed development is consistent with Skagit County land use plan designation for the area and with Anacortes Urban Service Area plans. Coordination of Land Use planning between Anacortes and Skagit County would reduce potential for future jurisdictional conflict as development occurs in the area.

The proposal, at full development, would add significant traffic volume to area roads. This impact can be mitigated through road improvements such as: alternate access from The Pointe to Havekost Road, signing and lighting of intersections and turning and deceleration lanes, but increased traffic will increase traffic accident potential particularly at inadequate intersections and on roadway sections which are not straight and level.

No significant adverse impacts to Public Services are projected because of the long-term time frame over which development would occur. This gives agencies

# SUMMARY

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## Final Environmental Impact Statement

time to plan for and develop response to increased demands in a particular area. As with all development, increased service calls add to the cumulative demand for the limited supply of services.

Coordination of public services and utilities between the entities with jurisdiction (Anacortes, Skagit County, Dewey Road Fire District, Del Mar Water System) will assist in mitigating impacts of development on existing services and could reduce jurisdictional conflict which can increase costs and add unnecessary delays to decision making.

# INTRODUCTION & PROPOSED ACTION

## Final Environmental Impact Statement

This FEIS projects and analyzes potential impacts of long-range development of San Juan-Fidalgo Properties in accordance with the Ten Year Concept Plan which has been prepared by the applicants, as well as the impacts of contemporary plans for an additional thirty lots, in two additional divisions, contiguous to existing plats at The Pointe.

### **PROPOSED ACTION**

This EIS is prepared to address impacts of both the current development proposals (divisions at The Pointe) as well as the long range development concept for San Juan-Fidalgo properties south of Anacortes. It is the intent of this document to provide environmental review required for plats being planned for submittal to the county this year, and to also be used as the basis for review of successive applications for long range development. Future development proposals would adopt this EIS by reference (WAC 197-11-600) or use it as a basis for Addenda (WAC 197-11-625) to meet State Environmental Policy Act (SEPA) requirements.

The proposal currently being planned is for a 25-35 lot plat at The Pointe. To analyze the long range development concept, development projections for property held by San Juan-Fidalgo Properties east of Marine Drive and Rosario Road, as well as cumulative impacts of these and related actions in the area, are to be analyzed. Timing of further development from The Pointe on the north, the Middle Ninety and Seaview on the south, will be dependent upon market demand and extension of water from Anacortes south along Marine Drive and Rosario Road. Total development potential based on existing zoning and acreage available assuming no sewer extension or zoning change is outlined below.

### **ROADS AND DRAINAGE**

Development of the subdivisions will require

access to the highways serving the area (Refer to Figure 11 Transportation Map for access points) and residential roads to serve each lot. Private roads are proposed for the subdivisions with fifty foot right-of-way width (variances necessary for 50 foot width and divided roadways), standard width asphalt paving, and no curbs, gutters or sidewalks. Trails will provide the interior, non-vehicular circulation system. Drainage in all the subdivisions will use the natural system as much as possible with culverts and detention ponds where necessary.

### **WATER SERVICE**

Proposed water service to each of the development sites is from the Anacortes Water System. The sites are all within the Anacortes Water Service Area. Connection to Anacortes water service requires water lines, pump stations, reservoirs and related improvements to meet standards set by the Anacortes Public Works Director and Ordinance No. 1978. Anacortes water lines currently extend south to McCorkle Place. Required fire flows would be 500 gallons per minute (GPM) for 30 minutes for residential areas, and hydrants are required at no more than 600 foot intervals. The Anacortes water line on Marine Drive is a twelve-inch main which is consistent with the water service plan for serving areas south to the Deception Pass area. Seaview Plats I, II and III are served from the Del Mar system.

### **SEWER SERVICE**

There is no sanitary sewer service to the three development site areas. The nearest sanitary sewer line is on Havekost Road to the east. Existing residences in the area use individual septic tank and drainfield systems. Proposed development at the three sites would be served by individual septic tank and drainfield systems unless Anacortes sewer service were made available. Costs of such service from Anacortes would be expensive because

	<b><u>Zone</u></b>	<b><u>Approx. Acres</u></b>	<b><u>Potential Lots</u></b>
The Pointe (1)	R	188	120-200
The Middle Ninety (2)	R & RI	90	50-100
Seaview (3)	R	75	100-130

1. Residential zoning allows for 12,500 sq. ft. lots on private sewer depending upon Health Department approval of septic systems. It is projected that the site, without a sewer system, would average about one lot per gross acre for the entire site.
2. Zoning on this site is Residential (approx. 35 acres) and Rural Intermediate (approx. 45 acres). Rural Intermediate allows 2.5 acre lots. The site, with existing zoning, could be developed into approximately 55 lots.
3. Soils and topography at this site will support up to two units per acre on private sewer.

# **INTRODUCTION & PROPOSED ACTION**

## **Final Environmental Impact Statement**

of pumping distances and elevations, and annexation to the city would be a requirement under Anacortes Interim Annexation Policy. If sewer service is not extended to the sites, development densities will, because of larger lot size requirements for individual septic tank and drainfield systems, be at the low end of the ten year projections for potential lots. This would allow 250 to 300 total lots as opposed to the 400 to 430 at the high end.

### **CLEARING, GRADING, AND FILL**

The site areas are a mix of second and third growth forest which were last logged in the 1970's. Clearing and grading will be required for road construction and building site development. It is the intention of this large lot development to maintain as much natural vegetation as possible. Protective covenants require approval for removal of large trees by homeowners. Grading and fill will be necessary for road construction and drainage improvements. Some fill may be necessary for mound drainfield systems on lots which do not have adequate soils to support conventional systems. Plans for road improvements and lot layout have not been finalized for all parcels within the development areas, but general assumptions about layout and roads can be made based on existing development patterns at The Pointe and Seaview. These assumptions are used to estimate and project impacts of the ten year development. Road development at The Pointe and The Middle Ninety will require major cuts and fill through some of the rough rocky areas and along steeper slopes.

### **ALTERNATIVES**

This FEIS examines both the short-term impacts of additional lot development at The Pointe and Seaview as well as the Long-Range Development Plan. Alternatives considered are No Action, which would prohibit immediate development of lots in the two project sites, The Pointe and Seaview, and defer or prohibit future residential de-

velopment of the Long-Range Development Plan; and, development at a lower density which would reduce the degree of impacts to some elements of the environment (Plant and Animal Habitat, Land Use and Population, Public Services, Transportation), but would not eliminate impacts.

### **NO ACTION**

No action by the county at this time would avoid those impacts identified in this DEIS which are associated with residential development. No action would likely result in individual, larger lot size (2.5 to five acres and larger) development and some limited timber harvest of the sites. This would result in similar type impacts to the natural environment as are identified in this DEIS, but at a much lower rate and intensity. The public service and land use impacts associated with multi-jurisdictional decision making could still occur but they would occur at a lower level of intensity and on a piecemeal basis.

### **DEVELOPMENT AT LOWER DENSITY**

The proposed development which, at the lower range, is projected at approximately one unit per gross acre (270 units) and, at the upper range, at approximately one unit per five-eighths acre, is considered economically feasible and marketable by the proponents.

The Long-Range Plan with a range of density allows the county and the proponents flexibility in most appropriate application of those mitigating measures which would, by increasing lot size, reduce impacts to such elements as soils, topography, water runoff, septic systems and land use. The larger lot size mitigating alternatives would be best applied to the steeper slope areas of The Pointe and The Middle Ninety.

Lower density development would reduce traffic generation, but roadway development and associated impacts to the natural environment would be similar if roads were developed throughout the sites.

# **ADDITIONS AND CORRECTIONS TO DRAFT EIS**

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Final Environmental Impact Statement

- **Additional Runoff and Drainage Information**
- **Soils Map, Fig. 3**
- **Water Systems Map, Fig. 4 and Corrected Table of Systems and Users**
- **Hydrogeologic Study for Seaview, Division III, by Carr/Associates**
- **Additional Traffic Information**
  - **Traffic Count, A.M. Peak Hour Marine Drive at Anacortes City Limit**
  - **Traffic Count, P.M. Peak Hour at Marine Drive Havekost Road Intersection**
  - **Traffic Count, P.M. Peak Hour at Rosario Road/SR-20 Intersection**

# ADDITIONS AND CORRECTIONS TO DRAFT EIS

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Final Environmental Impact Statement

## ADDITIONAL RUNOFF AND DRAINAGE INFORMATION

### Drainage Response

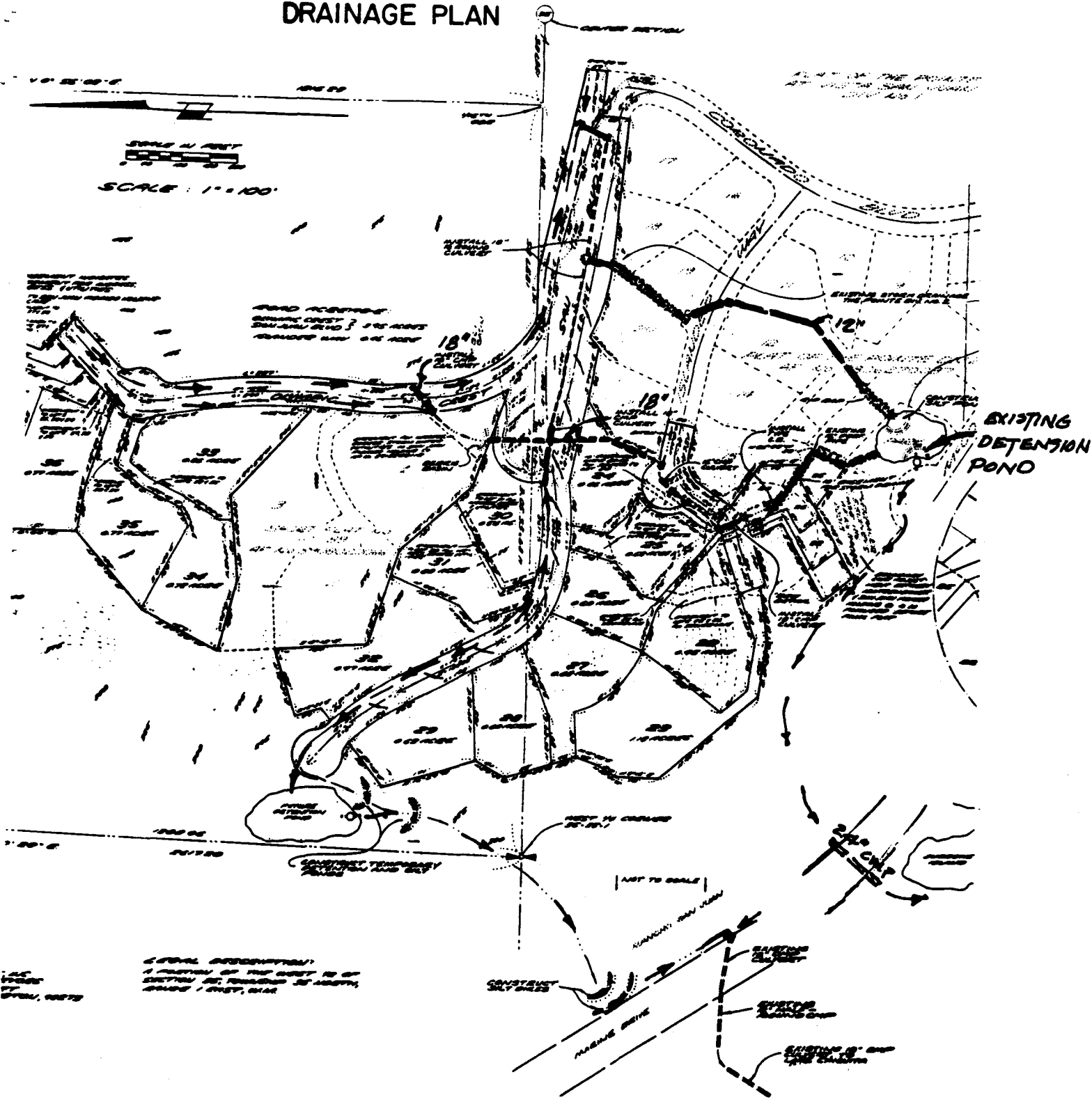
Chapter 14.36 of the Skagit County Code, Water Drainage and Erosion/Sedimentation Control sets forth the requirements for drainage plans and facilities as they would relate to this proposal. As part of the proposal a temporary erosion and sedimentation plan is required and describes the methods that will be utilized to control erosion and sedimentation during construction.

In addition, the ordinance requires a drainage system design that provides detention facilities so that surface runoff from the subject property does not increase above the runoff from a 5-year storm from conditions existing on the site prior to development.

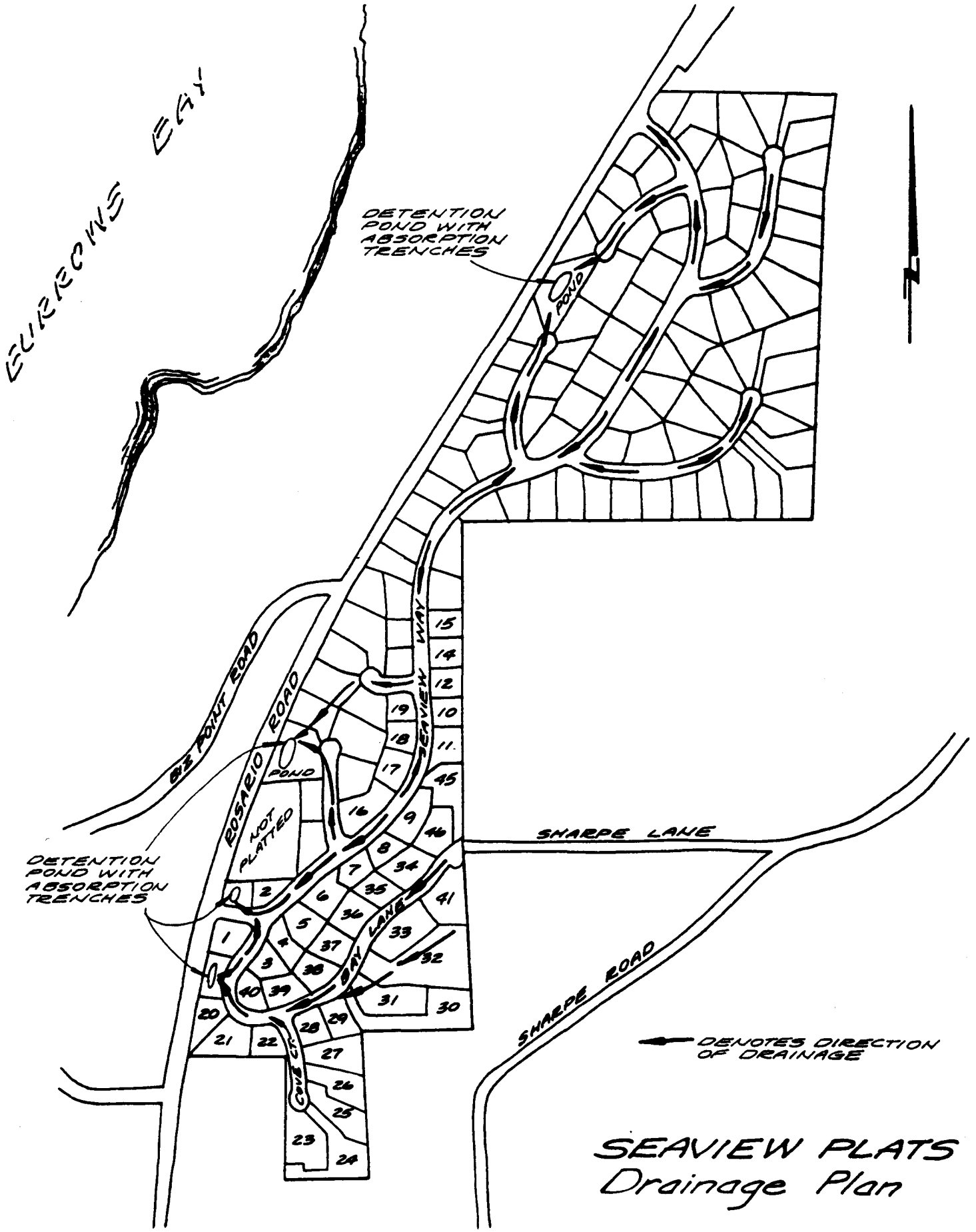
As the property is proposed for subdivision, a drainage plan is required to indicate temporary measures for erosion and sedimentation control and to provide calculations and designs which limit the runoff from the property to rates at or below the existing design storm's peak discharge.

There has been some problem with increased sedimentation from the site. Some of the existing development was started without the temporary erosion and sedimentation facilities being in place and prior to construction of the proposed detention facilities. The County is aware of this situation and has reviewed it with the proponent and his representatives. It has been determined that the detention facilities proposed as part of future drainage plans shall be constructed and functioning prior to development which will impact surface water runoff. In addition, the proponent and his staff are aware of the importance of the temporary sedimentation and erosion facilities being in place prior to construction or timber harvest activities. The drainage systems are now in place for the existing developments, as shown on Figures \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.

JANUARY, 1990  
DRAINAGE PLAN



POINTE DIV. 3



ORDINANCE 9763

ADOPTION OF THE SKAGIT COUNTY WATER DRAINAGE AND EROSION/SEDIMENTATION CONTROL ORDINANCE

SKAGIT COUNTY ORDINANCE

Chapter 14.36

Water Drainage and Erosion/Sedimentation Control

Sections:

14.36.010	Purpose
14.36.020	Drainage Requirements, General
14.36.030	Definitions
14.36.040	Applicability
14.36.050	Mandatory Drainage Requirements
14.36.060	Variations
14.36.070	Technical Requirements, Engineering Guidelines and Supplemental Information
14.36.080	Review and Approval of the Drainage Control Plans and Facilities
14.36.090	Bonds and Insurance
14.36.100	Applicability to Governmental Entities
14.36.110	Other Permits Required
14.36.120	Enforcement
14.36.130	Fees
14.36.140	Severability
14.36.150	Effective Date

WHEREAS, the Skagit County Planning Commission held a public hearing on July 11, 1983, to review the staff findings and recommendations, to receive public testimony, and to consider the draft Water Drainage and Erosion/Sedimentation Control Ordinance, and

WHEREAS, the Planning Commission considered and deliberated the merits of the draft ordinance and recommended approval as evidenced by the attached recorded motion, and

WHEREAS, the Board of County Commissioners, at a public meeting on August 1, 1983, has reviewed the draft ordinance, findings and recommendation of the Planning Commission and has discussed and deliberated the action to be taken in open session.

NOW, THEREFORE, BE IT RESOLVED that the Skagit County Board of Commissioners accepts the recommendation of the Planning Commission and hereby approves the Skagit County Water Drainage and Erosion/Sedimentation Control Ordinance as presented and attached to this ordinance.

IN TESTIMONY WHEREOF, we hereunto set our hands and affix the official seal of our office this 2<sup>nd</sup> day of August, 1983.

APPROVED AS TO CONTENT:  
*Robert S. ...*  
Planning Director

BOARD OF COUNTY COMMISSIONERS  
SKAGIT COUNTY, WASHINGTON  
*[Signature]*  
Chairman

APPROVED AS TO FORM:  
*[Signature]*  
Skagit County Prosecuting Attorney

*[Signature]*  
Commissioner  
*[Signature]*  
Commissioner

ATTEST:  
*[Signature]*  
Skagit County Auditor and  
Ex Officio Clerk of the Board  
*[Signature]*  
for Jerry Mc ...

SKAGIT COUNTY ORDINANCE  
Page 1 of 9

14.36.010 PURPOSE

The purpose of this Chapter is to promote sound development policies and construction procedures which respect and preserve the County's water courses; to minimize water quality degradation by controlling the sedimentation of drainage ditches, creeks, rivers, ponds, lakes and other water bodies; to protect property owners adjacent to developing land from increased runoff rates which may cause erosion of abutting properties; to preserve and enhance the suitability of waters for active and passive recreation and sport and commercial fishing; to protect valuable ground water resources; to protect downstream property owners; to ensure the safety of County roads and rights-of-way; and to decrease surface water damage to public and private property.

14.36.020 DRAINAGE REQUIREMENTS, GENERAL

Drainage control shall be provided for all property improvements within Skagit County according to this Chapter, the County's Drainage and Erosion/Sedimentation Control Procedures Manual which is incorporated into this chapter by reference and subsequent revisions.

14.36.030 DEFINITIONS

- A. "Comprehensive Drainage Plan" refers to a detailed analysis by Skagit County for each drainage basin which compares the capabilities and needs for runoff accommodation due to various combinations of development, land use, structural and nonstructural management alternatives. The plan recommends the form, location and extent of quantity and quality control measures which optimally would meet the legal constraints, water quality standards, and community standards, as well as identifying the institutional and funding requirements for plan implementation.
- B. "Computations" shall mean calculations, including coefficients and other pertinent data, made to determine the drainage plan with rates of flow of water given in cubic feet per second (cfs).
- C. "Design Storm" shall refer to a 25-year recurrence interval storm for the purposes of design of drainage facilities.
- D. "Detention Facilities" shall mean facilities designed to hold runoff which gradually releases it at a predetermined maximum rate.
- E. "Detention/Retention Facility Plan" shall mean a plan for a facility designed to hold runoff and release it at a predetermined rate or contain the runoff on the site.
- F. "Developer" shall mean the individual(s) or corporation(s) applying for the permits or approvals listed in this ordinance.
- G. "Developmental Coverage" shall mean all developed surface areas within the subject property including, but not limited to, rooftops, driveways, carports, accessory buildings, parking areas, and any other impervious surfaces.
- H. "Drainage Area" shall mean the watershed contributing water runoff to and including the subject property.
- I. "Drainage Plan" shall mean a plan for collection, transport, treatment, and discharge or recycle of water within the subject property. Impacts on downstream drainage facilities shall also be addressed in the plan. A drainage plan will include a detention/retention facility plan and an erosion/sedimentation control plan when required by this ordinance.
- J. "Erosion/Sedimentation Control Plan" shall mean a plan to minimize sedimentation, erosion and siltation during construction of property improvements.
- K. "Established Farmland" shall mean lands zoned for agriculture and which are currently being utilized as pasture or for production of agricultural products. Any forest land, woods, or brushland shall not be considered established farmland.
- L. "Natural Location" of drainage systems shall refer to the location of those channels, swales, and other drainage conveyance systems existing for the subject property at the time of drainage plan preparation, defined from either maps or photographs, or such other means as appropriate.
- M. "Peak Discharge" shall mean the maximum surface water runoff rate (cfs) determined for the design storm.
- N. "Procedures Manual" shall mean the manual of technical and administrative procedures established by the Public Works and Planning Departments which delineates methods

to be used, the level of detail of analysis required, and other pertinent information for implementation of the provisions of the drainage ordinance.

O. "Receiving Bodies of Water" shall mean creeks, streams, lakes and other bodies of water into which surface waters are directed, either naturally, in man-made ditches, or in closed conduit systems.

P. "Retention Facilities" shall mean facilities designed to hold water for a considerable length of time and then consume it by evaporation, plant transpiration, or infiltration into the soil.

Q. "Subject Property" shall mean the tract of land which is the subject of the permit and/or approval action, as defined by the full legal description of all parcels involved in the proposed development.

14.36.040 APPLICATION

A. Drainage Plan

(1) A drainage plan shall be submitted for all property improvements requiring any of the following permits and/or approvals:

- (a) Short Subdivision Approval
- (b) Grading Permit
- (c) Subdivision Approval
- (d) Planned Unit Development Approval
- (e) Mobile Home Parks
- (f) Substantial Development Permit
- (g) Special Use Permit
- (h) Building Permits (except residential and accessory building permits will require a drainage plan only if developmental coverage is greater than 50 percent of the land area or greater than 10,000 square feet).
- (i) Access Road Permit
- (j) Requests to Open Public Rights of Way
- (k) Binding Site Plan

This Chapter and the Procedures Manual apply to forest practices when the land is being converted to another use. All forest practices on lands not being converted to another use shall be performed according to the forest Practices Act, WAC 222.

(2) Additional Information

The plan submitted during one permit/approval process may be subsequently submitted with additional information that is requested by the Public Works Department.

(3) Drainage Plans

All drainage plans shall bear the seal of a professional civil engineer registered in the State of Washington.

B. Erosion/Sedimentation Control Plan

A temporary erosion/sedimentation control plan must be submitted and approved as part of the drainage plan for land alterations exposing more than 5,000 square feet of bare soil except in the case of established farmland. All tree harvesting and related work shall be done in accordance with the State Forest Practices Act.

C. Detention/Retention

Detention/retention facilities shall be required as part of the drainage plan for all Subdivisions, Planned Unit Developments, Mobile Home Parks, and Shorelines Substantial Developments in order to maintain surface water discharge rates at or below the existing design storm's peak discharge except where it can be demonstrated by the developer that no adverse impact will result from not providing said facilities. Other land development may be required to provide detention/retention facilities if determined necessary by the Director of Public Works.

14.36.050 MANDATORY DRAINAGE REQUIREMENTS

A. Allowable Discharge

The design storm peak discharge from the subject properties requiring detention facilities may not be increased above the runoff from a 5-year storm from conditions existing prior to the proposed development except where it can be satisfactorily demonstrated by the developer that there is no adverse impact.

**B. Downstream Drainage**

For all developments requiring a drainage plan, the capacity of the downstream drainage course is required to be evaluated from the point of discharge of the development to the nearest perennial stream or other receiving water. This system should be shown on the drainage layout.

**C. Naturally Occurring Locations**

Surface water entering the subject property shall be received at the naturally occurring locations and surface water exiting the subject property shall be discharged at the natural locations with adequate energy dissipators within the subject property to prevent downstream damage.

**D. Open Channel Setbacks**

Where open channel construction is used to handle drainage within the subject property, a minimum of 15 feet setback shall be provided between any structures and the top of the bank of the defined channel.

**E. Open Channel Water Surface**

In open channel work the water surface elevation for the design storm will be indicated on the plan and profile drawings. The configuration of the finished grades constituting the banks of the open channel shall also be shown on the drawings.

**F. Open Channel Cross Section**

In open channel work the proposed cross section of the channel will be shown with stable side slopes. Side slopes will be a minimum of 3:1 unless paved or stabilized in some other manner approved by the Director of Public Works. The water surface elevation of the flow for the design storm shall be indicated on the cross section.

**G. Open Channel Stabilization**

All open channels not paved or armored will be seeded in grass to stabilize slopes and prevent erosion.

**H. Closed System Setback**

Where a closed system is used to handle drainage within the subject property, all structures including tanks, drain fields, and utilities shall be set back a minimum of 10 feet from said closed system.

**I. Easements**

There shall be a drainage easement within the subject property of at least the ditch or pipe width plus 15 feet for open channel or closed system installation, operation, and maintenance.

**J. Access**

There shall be a minimum width of 15 feet access from an established County road to a drainage facilities. A permanent metal sign with 4-inch high baked enamel letters reading "Detention Facility" shall indicate the location of all underground detention facilities.

**14.36.060 VARIANCES**

Variances from the requirements of this Chapter and the Procedures Manual may be granted at the discretion of the Director of Planning and the Director of Public Works only after a determination by the Planning and Public Works Departments has been made by utilizing the Comprehensive Drainage Plan (if available) and/or the following criteria:

- (1) Capacity of downstream facilities under design storm conditions;
- (2) Maintenance of the integrity of receiving bodies of water;
- (3) Possibility of adverse effects on detention/retention facilities;
- (4) Utilization of regional detention/retention facilities; and
- (5) Capability for maintenance of the system.

Requests for variance shall be filed in writing with the Public Works Department and shall adequately detail the justification for consideration of relief from any requirements of this Chapter.

**14.36.070 TECHNICAL REQUIREMENTS, ENGINEERING GUIDELINES AND SUPPLEMENTAL INFORMATION**

The Procedures Manual describes the requirements for obtaining approval of drainage control plans, provides guidance in sizing and design of drainage facilities, and prescribes right-of-way and easement conditions and inspection and maintenance requirements.

14.36.080 REVIEW AND APPROVAL OF THE DRAINAGE CONTROL PLAN AND FACILITIES

A. General

All storm drainage plans prepared in connection with any of the permits and/or approvals listed in Section 14.36.040 shall be submitted for review by and approval of the Public Works and Planning Departments in accordance with the procedures established in the Procedures Manual. No permit or approval listed in Section 14.36.040 will be issued until the drainage plan is approved.

B. Commencement of Construction

Construction work shall not commence for any of the above permits/approvals until such time as approval of the drainage plan is obtained in accordance with the Procedures Manual.

C. Erosion/Sedimentation Control Construction

Temporary erosion/sedimentation control facilities shall be constructed prior to any grading or extensive land clearing in accordance with an approved temporary erosion/sedimentation control plan. These facilities must be satisfactorily maintained until construction and land-scaping is completed and the potential for on-site erosion has passed. Established farmlands are exempt from this requirement.

D. Detention/Retention Construction

All required storm water detention/retention facilities must be constructed and in operation prior to paving and building construction unless otherwise approved by the Director of Public Works, subject to posting a bond in the amount of the estimated construction cost plus 25 percent.

E. Inspection and Approval of Facilities

At the time of approval of the drainage plan for the subject property, a schedule for inspection of construction of facilities will be established by the Public Works Department.

No final inspection, approval, or occupancy will be permitted by the Building Official until the drainage control facility is completed and its inspection noted as approved.

14.36.090 BONDS AND INSURANCE

The Public Works Department is authorized to require all developers constructing detention facilities or other drainage facilities to post surety and cash bonds. The following bonds and insurance are required.

A. Construction Bond

Prior to construction, the person constructing the facility shall post a construction bond in an amount sufficient to cover the cost of conforming said construction with the approved drainage plans. After determination by the Public Works Department that all facilities are constructed in compliance with the approved plans, the construction bond shall be released.

B. Maintenance Bond

After satisfactory completion of the facilities and release of the construction bond by the County, the owner constructing the facilities shall commence a 2-year period of satisfactory maintenance of the facility. A cash bond to be used at the discretion of the Public Works Director to correct deficiencies in maintenance affecting public health, safety and welfare, must be posted and maintained throughout the 2-year maintenance period. The amount of the cash bond shall be determined by the Public Works Director, but shall not be in excess of \$1,000. In addition, a surety bond or cash bond to cover the cost of remedying defects or failures of the facilities shall also be posted and maintained throughout the 2-year maintenance period.

C. Liability Insurance

The owner constructing the facility shall maintain a liability policy in the amount of \$1,000,000 which shall name Skagit County as an additional insured, and which shall protect Skagit County from any liability up to that amount for any accident, negligence, failure of the facility, or any other liability whatsoever, relating to the construction or maintenance of the facility. The liability policy shall be maintained by the owner of the facility.

14.36.100 APPLICABILITY TO GOVERNMENTAL ENTITIES

All municipal and governmental entities shall be required to submit a drainage plan and comply with the terms of this Chapter when developing and/or improving land including, but not limited to, road building and widening, within the unincorporated areas of Skagit County.

14.36.110 OTHER PERMITS REQUIRED

It is recognized that many other city, county, state, and federal permit conditions may be applied to the proposed action, and that compliance with the provisions of this Chapter does not constitute compliance with other such requirements.

14.36.120 ENFORCEMENT

The Planning Director is authorized to enforce the provisions of this Chapter utilizing the remedies and procedures in Title 14 of this code. In addition to the remedies provided in Title 14, the Planning Director may suspend or revoke permits for the proposed development for cause.

14.36.130 FEES

The Board of County Commissioners by resolution after a public hearing shall establish fees for projects requiring additional services by the County to be on the basis of all direct costs incurred by the County, including, but not limited to, the following:

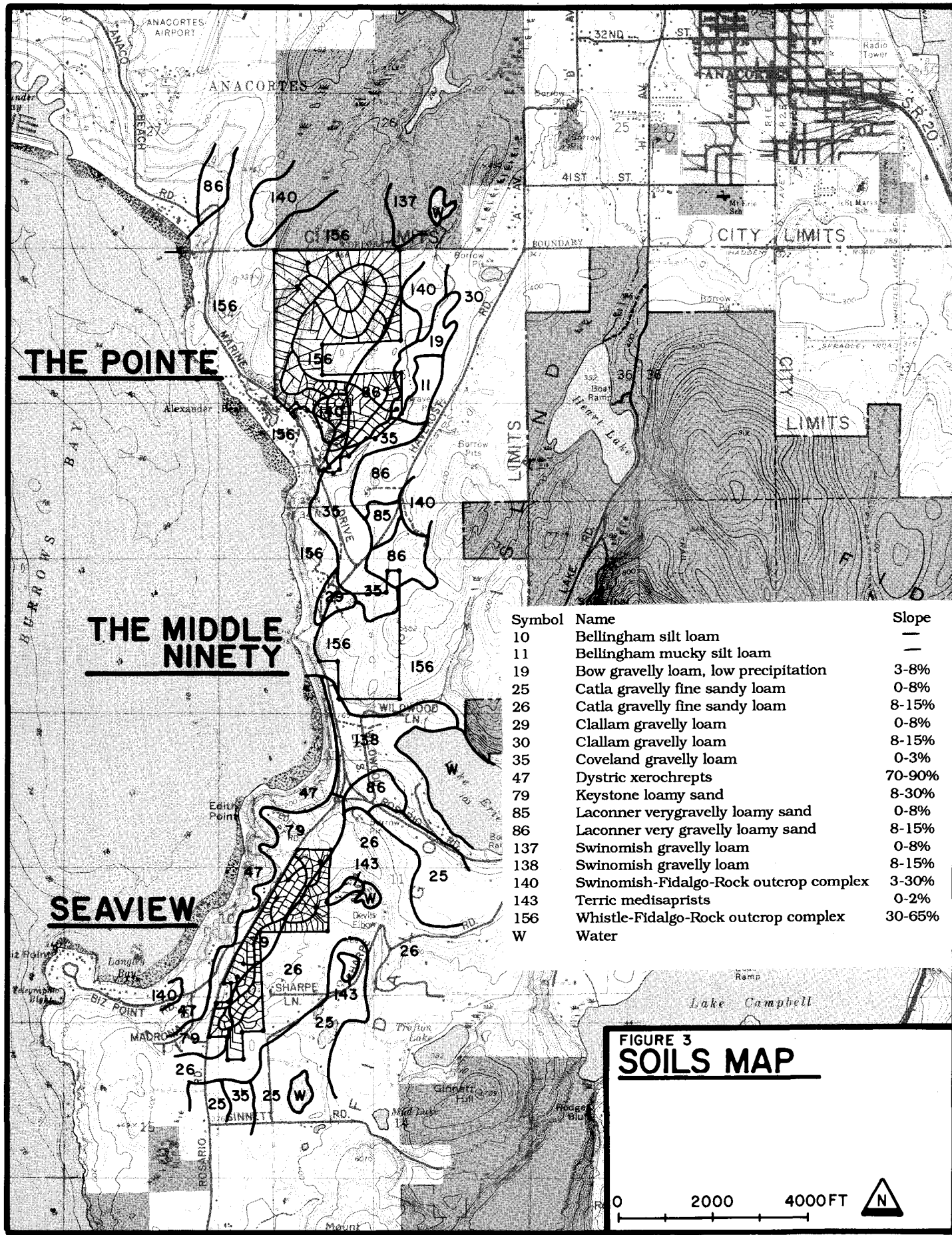
- (1) Cost of engineering - review time.
- (2) Costs of inspection time.
- (3) Costs for testing completed facilities.
- (4) Costs for administration.
- (5) Any other special costs attributable to the project.

14.36.140 SEVERABILITY

If any provisions of this Chapter or its application to any person or property is amended or held invalid, the remainder of the Chapter or the application of the provision to other persons or circumstances shall not be affected.

14.36.150 EFFECTIVE DATE

The terms of this Chapter shall apply where applications are received after the date of adoption.



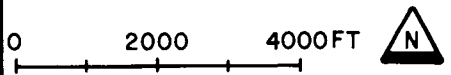
**THE POINTE**

**THE MIDDLE NINETY**

**SEAVIEW**

Symbol	Name	Slope
10	Bellingham silt loam	—
11	Bellingham mucky silt loam	—
19	Bow gravelly loam, low precipitation	3-8%
25	Catla gravelly fine sandy loam	0-8%
26	Catla gravelly fine sandy loam	8-15%
29	Clallam gravelly loam	0-8%
30	Clallam gravelly loam	8-15%
35	Coveland gravelly loam	0-3%
47	Dystric xerochrepts	70-90%
79	Keystone loamy sand	8-30%
85	Laconner verygravelly loamy sand	0-8%
86	Laconner very gravelly loamy sand	8-15%
137	Swinomish gravelly loam	0-8%
138	Swinomish gravelly loam	8-15%
140	Swinomish-Fidalgo-Rock outcrop complex	3-30%
143	Terric medisaprists	0-2%
156	Whistle-Fidalgo-Rock outcrop complex	30-65%
W	Water	

**FIGURE 3  
SOILS MAP**





# ADDITIONS AND CORRECTIONS TO DRAFT EIS

Final Environmental Impact Statement

## Corrected Table of Systems and Uses

Name & Location (Refer to Figure 5.)	Description	# Services
Del Mar Community Services. South of Anacortes along Burrows Bay	Private, non-expanding service area. 310 + ultimate connections. No sewer.	Est. 261 services. 206,000 gal. storage. Chlorination treatment since 1970.
Wildwood Lane. North of Havekost/ Rosario Rd. intersection	Small, private, non-expanding system. 12 ultimate connections. No sewer.	Est. 10 services. Unknown storage. No treatment.
Biz Point Water Association. South of Biz Point	Small, private, non-expanding system. 15 ultimate connections. No sewer.	Est. 10 services. Unknown storage. No treatment.
Green Cliffs Association. South of Biz Point	Small, private, non-expanding system. 8 ultimate connections. No sewer.	Est. 5 services. Unknown storage. No treatment.
Sunset West Water Association. South of Biz Point	Small, private, non-expanding system. 44 ultimate connections. No sewer.	Est. 25 services. 20,000 gal. storage. No treatment.

**DRAFT**

INVESTIGATION OF POTENTIAL IMPACTS  
ON WATER QUALITY OF THE DEL MAR COMMUNITY WATER SUPPLY SYSTEM  
FROM THE PROPOSED SEAVIEW DIVISION III

INTRODUCTION

BACKGROUND

San Juan Fidalgo Holding Company, Inc. proposes to develop Seaview Division III, a 21 lot plat on 16.8 acres. Plans call for water to be supplied by the Del Mar Community Water System in accordance with the provisions of a contract between Del Mar Services, Inc. and the developer. Sewage disposal will be through individual drainfield systems.

Del Mar Community Services, Inc., owner and operator of the Del Mar Community Water System, is concerned that septic tank effluent from the proposed residential development poses a threat to the quality of its water supply sources. Carr/Associates was retained by the Developer's engineering consultant, Leonard and Boudinot, Inc., to investigate and assess the potential impacts of onsite waste disposal to Del Mar's water quality.

SCOPE

This investigation involved collection of data from field work and sampling, drillers' logs, development plans, regulatory agency files, personal communication, and review of hydrogeology and engineering reports. The data was analyzed and the resultant findings are presented in a section under that heading.

Onsite waste disposal system design, lot-specific siting, construction, and maintenance are not within the scope of this report. It is presumed that best engineering, construction and maintenance practices will be employed.

FACTORS AFFECTING WATER QUALITY

The purpose of this investigation is to determine how the proposed development and hydrogeologic conditions relate to local water quality. Of particular interest are those hydrogeologic conditions that influence the effectiveness of onsite waste disposal systems, the movement of ground water, the movement of contaminants, and the vulnerability of the water supply system to contamination.

Important factors in determining potential impacts are as follows:

- \* Water system layout and operation of local supply wells can influence both contamination vulnerability and subsequent water quality.
- \* Onsite waste disposal system density and location relate to the loading of effluent to the soil for assimilation, treatment and dilution, and thus influence water quality.
- \* Slope and drainage characteristics affect the rate and direction of effluent movement through the filter field, and subsequent effluent movement possibly toward supply wells and springs.
- \* Soils and hydrogeology influence the effectiveness of the onsite treatment process, the direction and rate of movement of effluent, and the protection or vulnerability of ground water to contamination.
- \* Water quality trends demonstrate the suitability of onsite waste disposal systems for local soils and hydrogeologic conditions.

WATER SUPPLY

DEL MAR WATER SYSTEM AND SOURCES - LAYOUT AND OPERATION

There are four sources of water contributing to the Del Mar Community Water System. The system includes a shallow well system (eight wells), the Jones Canyon Springs collector, the Dodson Canyon Springs collector, and the Anacortes pipeline.

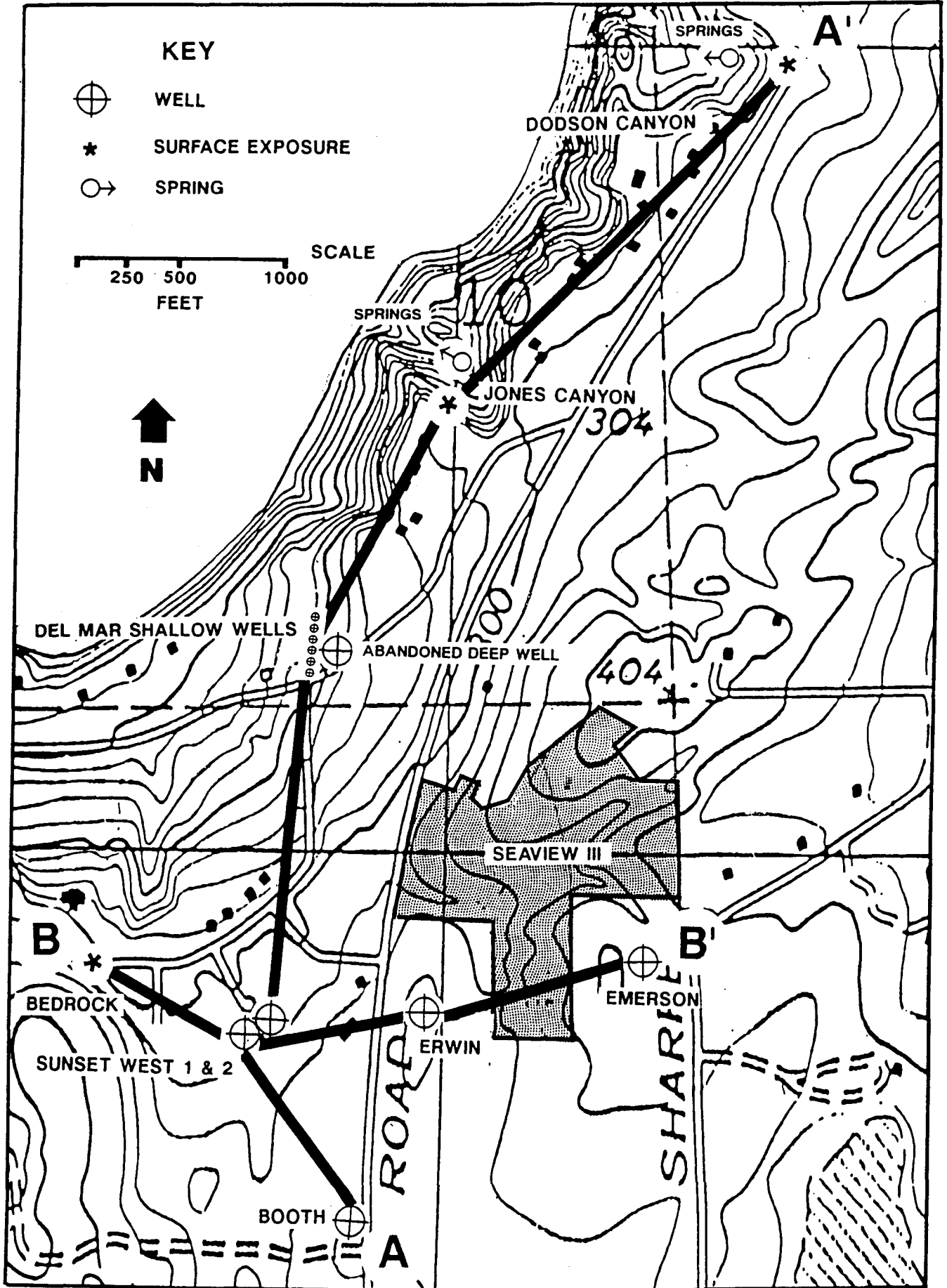
Shallow Wells

This primary source consists of a line of eight shallow wells located inside a partially fenced enclosure, just north of the intersection of Biz Point Road and Madrona Drive. Each well is approximately 25 to 30 feet in depth. From this well field, discharge totaling about 20 gpm is pumped or siphoned to a chlorinator and then to Tank 1, which has a capacity of 16,000 gallons.

Wells 1 through 6 are large diameter (36-inch) concrete caissons with concrete lids. Well 1 is not operated due to concerns about contamination from nearby street and hillslope drainages. Wells 2 and 3 are siphoned. Wells 4, 5 and 6 are pumped. Wells 5 and 6 have 12-inch inner casings in which the pumps are set. Wells 7 and 8 are 12-inches in diameter and share the same pump.

DELIVERED SEP 20 1999

# STUDY AREA MAP



CARR/ASSOCIATES

#### SLOPE AND DRAINAGE

The study area is dominated by uneven, steep hillslopes and includes gently sloped benches, ravines and bluffs. Surface water drainage is poorly defined. Surface drainage in the upland area where the proposed Seaview Division III is located is generally westward toward the Del Mar and Sunset West residential developments below.

Seaview Division III is situated at elevations between 415 and 315 feet MSL. The central portion of the Seaview Division III is a shallow ravine with a "U" shaped bottom. There is no indication of runoff channel development, and it is likely that surface water rapidly infiltrates the subsurface even during storm events.

Below the proposed development, Del Mar's shallow wells are situated between elevations 164 to 178 feet MSL. The wells are constructed along a narrow bench with steep slopes above and below. Numerous seeps are present on these slopes. Surface runoff is indicative of less permeable soils.

Several residences in the Sunset West and Del Mar developments are in the immediate vicinity of the shallow wells. Two lots were recently platted within 30 feet of the shallow wells. At least one home is within 150 feet and upgradient from shallow Well No. 1. Drainage from the roads above flows down the ditch along Biz Point Road and passes beside the enclosure for the shallow wells.

Del Mar's Jones Canyon and Dodson Canyon Spring collectors are not in the direct path of surface runoff from Seaview Division III. Jones Canyon Spring collector is located over 1,600 feet north of Seaview Division III at an elevation of 154 feet MSL. The canyon is quite steep and a number of homes are located along the bluff immediately above the Spring collector.

The Dodson Canyon Spring collector is located over 2,500 feet north of the nearest proposed Seaview Division III lots. Rosario Road passes within a few feet of the head of the canyon. The Dodson Canyon Springs are at an elevation of 204 feet MSL.

#### SOILS AND HYDROGEOLOGY

##### FINDINGS

Field examinations and analysis of driller's logs reveal that Seaview Division III and the Del Mar Water System are situated on thick deposits of glacial and interglacial sediments. As a part of this study, two hydrostratigraphic cross-sections of the area were developed to illustrate the local conditions. These cross-sections are included as Sections A-A' and B-B'.

#### Spring Collectors

The Jones Canyon and Dodson Canyon Spring collector systems consist of buried, perforated pipe laid horizontally along the canyon face. A collection box and pump are connected to Tanks 2 and 3 which store 100,000 gallons and 40,000 gallons respectively.

#### Anacortes Pipeline

In the event of a drought or demand in excess of supply, the north half of the system can be closed off and operated separately from the southern half of the system. In this situation, the Anacortes pipeline is used as the primary source for the northern half of the system. Increased demand during dry summer conditions have, on occasion, forced Del Mar to augment their supply system with water provided by the Anacortes pipeline.

Construction of the Seaview Division III and provision of the contracted water supply may require the northern half of the Del Mar Community Water System to turn to Anacortes pipeline water as a primary source. The existing Seaview Divisions I and II, and proposed Division III will receive water from the southern half of the supply system, which will continue to utilize the shallow wells as a primary source.

#### OTHER LOCAL SUPPLY WELLS

The Sunset West subdivision operates two supply wells about 1,300 feet south of the Del Mar shallow wells. One well produces about 11 gpm, the other about 6 gpm. The wells reportedly were able to provide water on peak demand days without interruption during recent drought years.

A number of low yield private wells serve individual residences south and east of Seaview Division III. The map of the study area shows five nearby wells.

#### PROPOSED SEAVIEW DIVISION III SEPTIC TANK SYSTEM DENSITY

The proposed Seaview Division III has a preliminary plat of 21 lots and covers a total area of 16.8 acres. Lots range in size from 18,000 to 72,150 square feet for an average density of 0.7 acres per home. Each lot will have its own septic tank and drainfield system.

Soils beneath Seaview Division III are mostly shallow, sandy loams. A patchy layer of till-like material (compact silt-clay and gravel) is present beneath the soil in some areas of the upper areas of the site.

The soils and till are underlain by dry, gravelly sands 35 to 130 feet thick. Beneath these dry sands, a brown clay 40 to 60 feet thick extends downward from an elevation of about 270 feet to 210 feet MSL. This clay zone acts as a confining aquitard to the aquifers below, and is referred to as Aquitard 1 in the cross sections.

A silt and sand zone with occasional thin layers of clay is present between 210 to 170 feet MSL. This material constitutes a fine sand aquifer varying in thickness from 10 to 20 feet. This aquifer provides water to a number of local wells, including Sunset West Wells 1 and 2 and Del Mar's shallow wells.

Gray-blue silt and clay, referred to as Aquitard 3, underlie the Aquifer 2 zone to a depth of at least 50 feet below sea level. Some gravelly zones, perhaps representing a third aquifer zone, are present in the clay at approximately 70 feet MSL. This zone may yield water to some other local wells, but these are not of significance to the findings.

Slope creep and landslides have occurred in the study area. Where these features are hidden by the dense vegetation or obscured by erosion, interpretation of the area's geology could be more complex. Del Mar's shallow wells and the recently short-platted property (#8-87) immediately west of the wells occupy relatively recent slump blocks.

Bedrock is exposed to the south along Biz Point, to the north at Edith Point, in the hills to the west, and to the east just off shore. Abrupt changes in subsurface geology are in evidence at several locations just outside the project area.

#### Aquifers

Unconsolidated sediments are the only known source of ground water in the study area and might be hydraulically isolated from aquifer systems outside the area. Low yield wells are completed in these sediments, and at best produce only 12 to 15 gpm. Wells completed in bedrock aquifers are considered insufficient for community supply purposes. Aquifer recharge is derived from infiltration of local rainfall on the area.

#### Suitability of Soils at Seaview III for Onsite Waste Disposal

The soils at Seaview III are generally very permeable and well drained. Test pits and earth moving activities reveal a dry, fine sand containing silt and gravel. The finer fractions of

this material should enhance treatment of drainfield effluent. In addition, these sediments are oxidized, indicating that subsurface conditions are aerobic and conducive to treatment of drainfield effluent.

#### Aquifer Vulnerability to Contamination

Due to the relatively flat gradient, an accurate determination of ground water flow direction was not possible. Some flow is directed toward Del Mar and the numerous seeps and springs along the hillside. However, the majority of flow may be in a direction other than that indicated by surface drainage.

The hydrostratigraphic cross-section B-B' shows the upper surface of Aquitard 1 sloping toward the east. This suggests that ground water flow in the unsaturated zone below Seaview III might run eastward.

Beneath Seaview Division III, Aquitard 1 offers substantial protection to Aquifer 1 below. Aquifer 2 receives additional protection from Aquitard 2.

Some existing Del Mar and Sunset West residences are situated on soils immediately over the clay Aquitards 1 and 2, and the sand and silts of Aquifers 1 and 2. Steeply sloped clay soils are poorly suited for drainfields, because poor soil permeability results in rapid down-slope flow and daylighting of effluent.

The sandy soils of exposed aquifers are highly permeable and can provide a direct conduit for septic tank effluent to ground water. Increased recharge from effluent could increase ground water discharge along seeps and springs. Chronically saturated, high water table soils are unsuitable for onsite waste disposal systems. The Del Mar shallow wells are situated in the exposed aquifer materials and are virtually unprotected from surface runoff or shallow subsurface flow from uphill.

#### WATER QUALITY

##### PRESENT WATER QUALITY

Water samples taken from Del Mar's Shallow Wells storage tank, various private wells, springs and surface runoff showed a great deal of variability in parameters used as indicators of water pollution. Nitrate, temperature and specific conductance were measured and compared with Del Mar and Sunset West water quality data as reported to the State Department of Health and Social Services (DSHS). See attached table.

Most parameters fell within the range of expected values. However, the following parameters were reported at concentrations which are cause for further assessment:

typical levels, was recorded in 1982 for Del Mar. This measurement is considered indicative of ground water contamination.

Manganese is a commonly occurring ground water constituent. Manganese levels have fluctuated. At Sunset West manganese has exceeded the secondary MCL. Both pollution and natural processes can cause manganese to be elevated. Elevated manganese in itself does not pose a health threat, however, it causes staining of fixtures, incrustation of pipes, and sometimes objectionable tastes.

Fecal coliform bacteria have appeared in a small number of Del Mar samples. This bacteria is indicative of contamination from human or warm-blooded animal wastes. The presence of fecal coliform implies that other possibly pathogenic bacteria and viruses also might be present. Septic tank systems can be a source of fecal coliform in ground water. The lone incidence of fecal coliform in the Sunset West supply probably represents accidental contamination of the sample bottles.

Low levels of nitrate (0.14 - 0.38 mg/L) were found in the private wells uphill from Del Mar's shallow wells. These values are considered representative of natural background levels. Sunset West's water supply showed a slightly elevated level of nitrate, 2 to 4 times above background. Del Mar's nitrate levels are elevated and range from 1.2 to 3.2 mg/L, and are about 10 times above background. Nitrate contamination is associated with fertilizers, septic tank effluent, and animal wastes.

#### Implications

Both the Del Mar and the Sunset West water supply systems show evidence of contamination. Nearby septic tank systems are strongly implicated by the water quality data, County Health Department records, and field investigation. Other contaminant sources may also be partly responsible.

Del Mar's contamination problems are likely associated with the shallow, unprotected nature of their sources. Sunset West's contamination problems probably result from either a poorly sealed well and nearby onsite waste disposal systems, or a cone of hydraulic influence that draws contaminants from a shallow or unconfined area in the aquifer. Contaminants inadvertently introduced directly to the Del Mar and Sunset West water storage tanks cannot be overlooked either.

#### FACTORS RELATED TO WATER QUALITY IMPACTS

Derived from the above findings, the following factors relate to the present water quality of Del Mar's water supply system and potential impacts from the proposed development.

- \* Arsenic
- \* Mercury
- \* Chloride
- \* Sodium
- \* Specific Conductance
- \* Manganese
- \* Fecal Coliform
- \* Nitrate

#### Water Quality Parameter Significance

In 1977, arsenic was found in three Del Mar samples. Detected levels were 0.019 mg/L, 0.003 mg/L, and 0.003 mg/L. The maximum contaminant level (MCL) for arsenic is 0.05 mg/L. No additional detections of arsenic have been reported since 1977.

The presence of arsenic is often associated with industrial pollutants and pesticides. It is rarely a natural constituent of ground water. Where arsenic naturally occurs, it is more likely to be found in bedrock wells. The source of detected arsenic is unknown.

Mercury was found in a number of samples reported to DSHS by both Del Mar and Sunset West water supply systems over a period of time from 1977 to 1988. Del Mar's system has had mercury present at a level nearly 5 times greater than that of the MCL. Sunset West has come close to exceeding the MCL with a reported level of 0.0018 mg/L. The MCL for mercury in drinking water is 0.002 mg/L.

Mercury is a rare ground water constituent and is not considered a naturally occurring substance in this area. Its presence in ground water is usually associated with industrial wastes, pesticides, or illegally dumped hazardous waste. These sources should not be ruled out, but it may be more likely that a broken electronic switch may be contributing mercury. Both Del Mar and Sunset West use water storage tanks which may have mercury switches.

Chloride and sodium levels have been relatively consistent and probably reflect natural background levels. However, elevated levels 6 times that of background levels were recorded for the Del Mar system in 1982. This incident could be caused by septic tank effluent or some other source of ground water contamination.

Specific conductance values are somewhat high for the whole area. Coastal area aquifers often have elevated specific conductance levels due to the inclusion of salt spray with storm precipitation. Elevated conductivity is also associated with "older" water which can be encountered during prolonged pumping and low water levels. It is also an indicator of water pollution.

Del Mar's specific conductance levels are similar to Sunset West. These levels are a bit above that of other upgradient wells. An exceptionally high level of 820 micromhos, over 2 times above the

### Septic Tank System Effectiveness at Seaview Division III

Although relatively rapid percolation is expected, the thick layer of aerated, poorly sorted, fine sand and gravel, 35 to 130 feet thick, which underlies Seaview Division III should provide adequate treatment and filtration for septic drainfield effluent. Aerobic (oxygenated) subsurface conditions are conducive to the treatment and removal of most drainfield effluent pollutants.

Biological contaminants such as pathogenic bacteria and viruses should be filtered by the fine sand. The fraction of silt and clay present enhances filtration. Microbial activity might also destroy these organisms.

A variety of household hazardous wastes such as solvents, detergents, pesticides, petroleum products, and other inorganic compounds can be present in effluent. These types of contaminants are typically introduced in relatively small quantities and are biodegraded by microbial activity, or immobilized by precipitation and adsorption to fine soil particles.

On the basis of quantity introduced and biochemistry of the filter field medium, nitrate is probably the only potential contaminant likely to remain mobile in concentrations of any concern.

### Del Mar Water Supply Vulnerability

A 40 to 60 feet thick clay aquitard beneath the Seaview Division III sand should offer additional treatment of effluent and substantial protection to the aquifer below. Concerns regarding the local water supply include:

- \* Del Mar's shallow wells are constructed in fine sand and silt, and have virtually no protection from surface contaminants.
- \* The spring collector systems for Jones and Dodson Canyons are less likely to be impacted by the proposed development than the shallow wells, based on distance from the proposed effluent source, surface drainage direction, and dilution factors.
- \* Elevated levels of nitrate, a slightly elevated specific conductance, and showings of fecal coliform bacteria strongly suggest that Del Mar's shallow wells are being contaminated by septic tank effluent from immediately adjacent residences.
- \* Installation of additional drainfields at short plat 8-87 could cause further water quality degradation.

One or more test/monitoring wells would also allow accurate determination of the local ground water gradient. Periodic sampling of a properly located monitoring well would provide an indication of any significant water quality changes. Computer modeling is not a practical solution for this situation, given the scale of the project, data requirements, and unverifiable results.

### RECOMMENDATIONS

Based on data available and the findings of this investigation, Carr/Associates recommends that the proposed Seaview Division III be approved for construction. Additional conditions to be considered include:

- \* Installation of one or more test/monitoring wells prior to development.
- \* Periodic monitoring of water levels and selected water quality parameters in the monitoring well(s).
- \* Further investigation of the Del Mar shallow wells water quality problems.
- \* Restricting proposed short plat development adjacent to the Del Mar shallow wells.
- \* Consider using available water from the Anacortes system.

# ADDITIONS AND CORRECTIONS TO DRAFT EIS

## Final Environmental Impact Statement

### ADDITIONAL TRAFFIC INFORMATION

Included in additional traffic information are actual peak hour traffic counts, intersection maps for the Marine Drive/Havekost Road intersection and the Rosario Road/SR-20 intersection, and a Transportation Map which includes year 2000 projected Average Daily Traffic and percent increase at year 2000 over existing (1989) levels. The percent increase includes increases from the proposed action plus an estimated 3% per year growth increase over the ten year period. Levels of Service (LOS) for existing conditions and at full development are also calculated for the Marine Drive/Havekost Road intersection. Calculations were based upon peak hour observations and "1985 Highway Capacity Manual" computer calculations for unsignalized intersections. Levels of Service (LOS) are a measure of capacity available on highways. Below is a description of Levels of Service for Unsignalized Intersections.

#### LEVELS OF SERVICE (UNSIGNALIZED INTERSECTIONS)

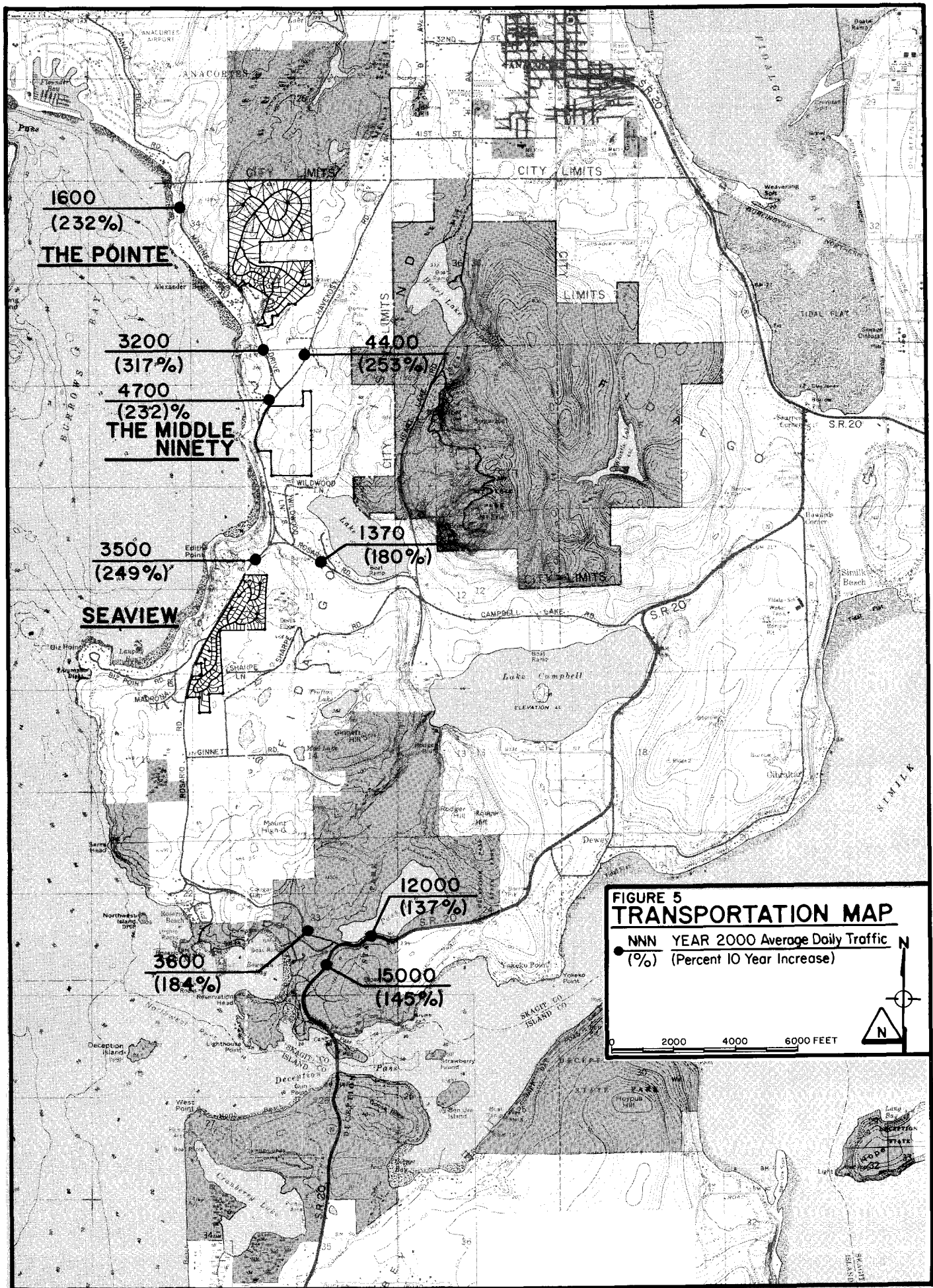
Unsignalized intersection levels of service are a measure of the reserve capacity available on critical traffic streams. All movements from the minor road and left turns from the major road are identified as critical streams. Through and right movements on the major road are considered to be independent of the effects of conflicting traffic on the minor road which reduce levels of service. The computational procedures require individual assessment of each critical stream. Reserve capacity is converted to level of service which scores the quality of the operating condition of each critical movement according to the following descriptions:

<u>Level of Service</u>	<u>Expected Traffic Delay</u>
A	Little or no delay
B	Short traffic delays
C	Average traffic delays
D	Long traffic delays
E	Very long traffic delays
-E	Failure/extreme congestion

Computer calculations of LOS at Marine Drive/Havekost Road and Rosario/SR-20 under existing conditions and at full development are below LOS for the Marine Drive/Havekost intersection, which is currently A (little or no delay) for all movements at the intersection. At full development LOS would remain at Level A except for left turn movement from Marine Drive onto Havekost Road. This movement would decline to LOS B (short delays).

LOS for the Rosario Road/SR-20 intersection is currently A for intersection movements except for left turn movement from Rosario Road onto SR-20 which is D. At full development LOS for right turns from Rosario onto SR-20 would decline from A to B and left turn onto SR-20 would decline from D to E.

Actual observation at the intersection during P.M. peak hour measured six vehicles per hour making the left turn from Rosario Road onto SR-20. At full development it is estimated that eleven vehicles per hour would make the movement. Under current conditions vehicles making the turn did not experience long traffic delays because of frequent breaks in through traffic on SR-20 as vehicles "bunched up" behind slower vehicles traveling the winding highway.



**VEHICLE VOLUME SUMMARY**

LOCATION: Fidalgo Isl, Skagit Co.  
 DATE: Nov. 15, 1989  
 DAY: Wednesday  
 TIME: 4-5 PM  
 WEATHER: Dry

Note: Speed Limit  
 40 MPH; Vehicles  
 travel in groups  
 behind RVs and trucks  
 at approx. 6 Vehicles  
 per group.

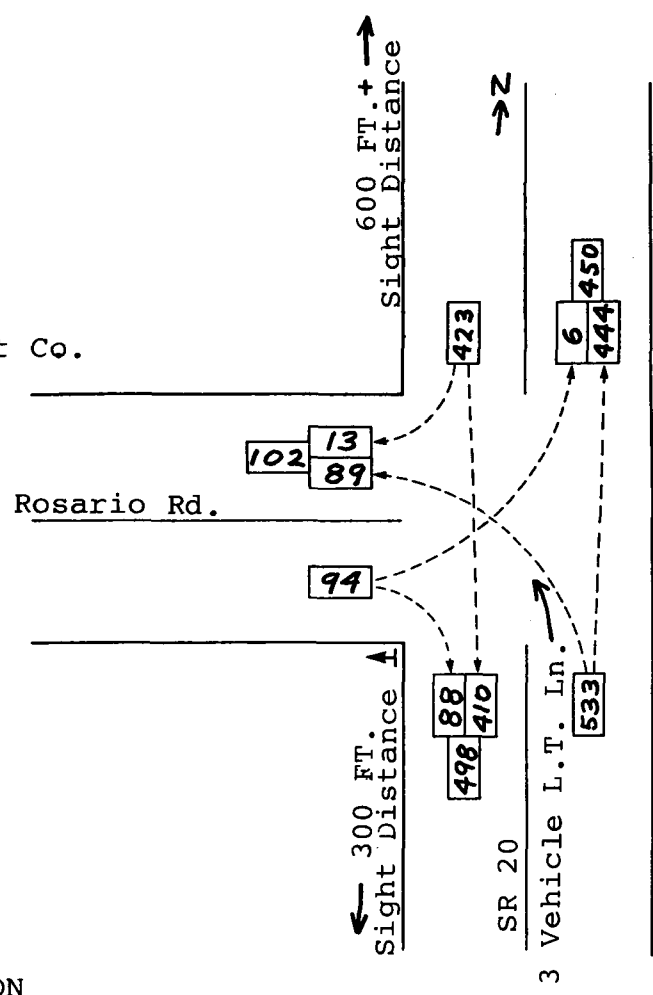
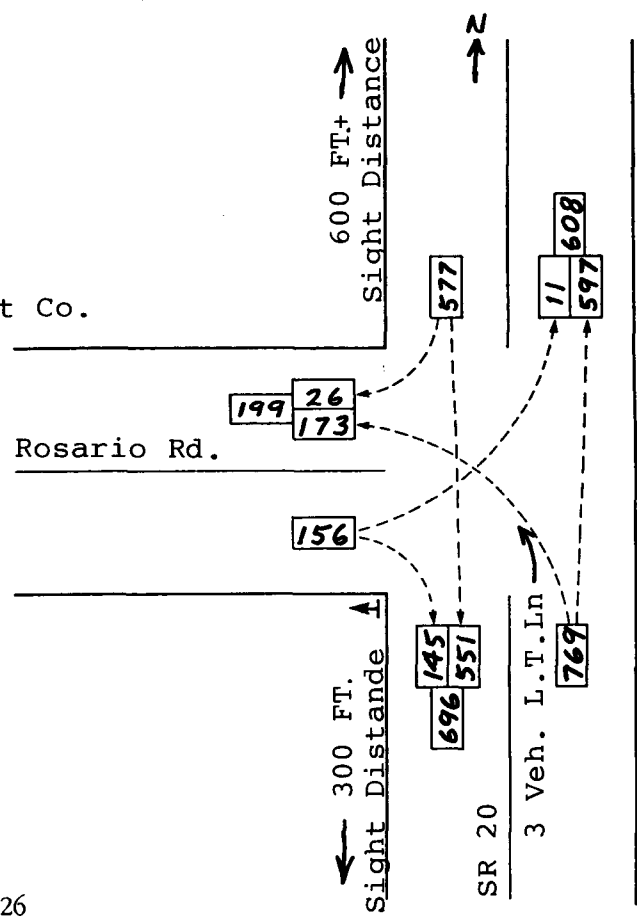


Figure 5a  
ROSARIO ROAD/SR 20 INTERSECTION

YEAR 10  
FULL DEVELOPMENT

**VEHICLE VOLUME SUMMARY**

LOCATION: Fidalgo Island, Skagit Co.  
 DATE: Year 2000  
 DAY: Weekday  
 TIME: PM Peak Hour  
 WEATHER: -----



Rosario/SR-20  
Existing Conditions

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW-RATE v (pcph)	POTEN-TIAL	ACTUAL	SHARED	RESERVE		LOS
		CAPACITY c (pcph) P	MOVEMENT CAPACITY c (pcph) M		CAPACITY c (pcph) SH	C = C - v R SH	
MINOR STREET							
EB LEFT	6	203	187	187	181		D
RIGHT	88	624	624	624	536		A
MAJOR STREET							
NB LEFT	91	739	739	739	648		A

IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... Rosario Road  
 NAME OF THE NORTH/SOUTH STREET.... SR 20  
 DATE AND TIME OF THE ANALYSIS..... 1/12/90 ; 1989 PM  
 OTHER INFORMATION.... Existing conditions

Rosario/SR-20  
Full Development

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW-RATE v (pcph)	POTEN-TIAL	ACTUAL	SHARED	RESERVE		LOS
		CAPACITY c (pcph) P	MOVEMENT CAPACITY c (pcph) M		CAPACITY c (pcph) SH	C = C - v R SH	
MINOR STREET							
EB LEFT	11	112	87	87	76		E
RIGHT	145	520	520	520	375		B
MAJOR STREET							
NB LEFT	177	618	618	618	441		A

IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... Rosario Road  
 NAME OF THE NORTH/SOUTH STREET.... SR 20  
 DATE AND TIME OF THE ANALYSIS..... 1/12/90 ; 2000 PM  
 OTHER INFORMATION.... With full development

**VEHICLE VOLUME SUMMARY**

LOCATION: Fidalgo Island, Skagit Co.  
 DATE: Nov. 9, 1989  
 DAY: Thursday  
 TIME: 4:15 to 5:15 PM  
 WEATHER: Overcast & Wet

Note:

1. Excellent Intersection
2. Clear Unrestricted Vision >1000 FT.
3. Wide Shoulders

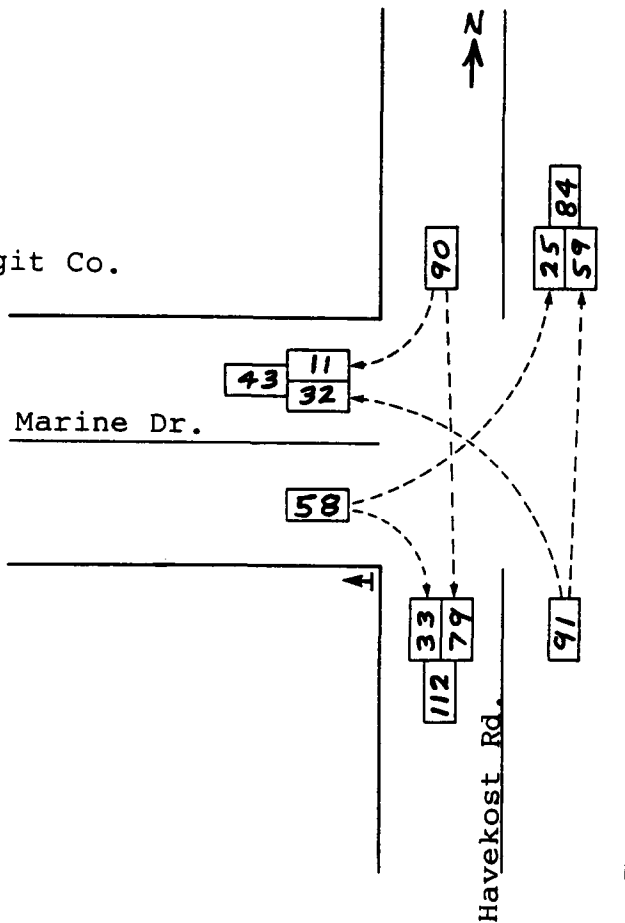
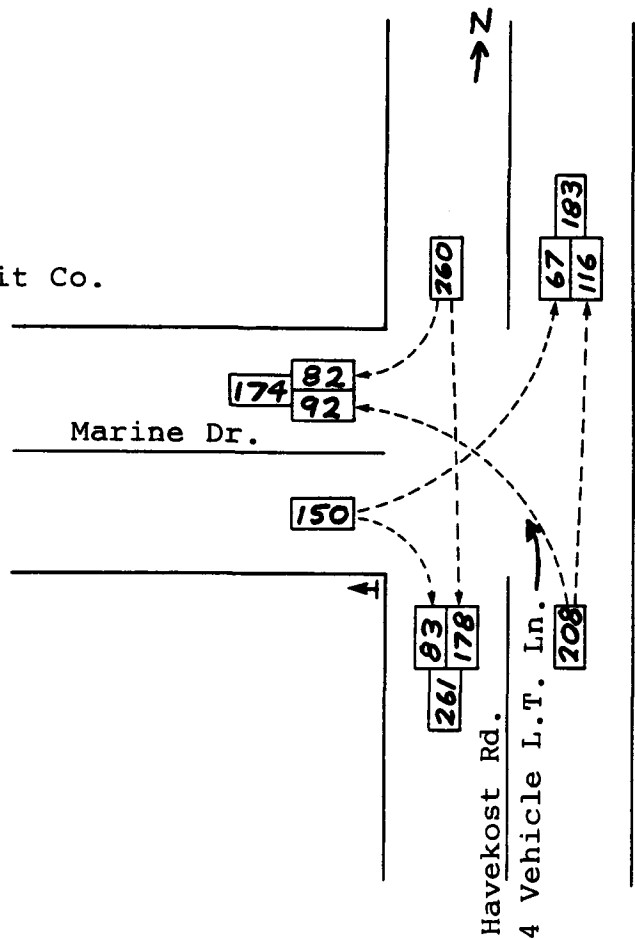


Figure 5b  
MARINE DRIVE/HAVEKOST ROAD INTERSECTION

YEAR 10  
FULL DEVELOPMENT

**VEHICLE VOLUME SUMMARY**

LOCATION: Fidalgo Isl., Skagit Co.  
 DATE: Year 2000  
 DAY: Weekday  
 TIME: PM Peak Hour  
 WEATHER: -----



Marine Dr. / Havekost  
Existing Conditions

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW-RATE v (pcph)	POTEN-TIAL	ACTUAL	SHARED	RESERVE		LOS
		CAPACITY c (pcph) p	MOVEMENT CAPACITY c (pcph) M		CAPACITY c (pcph) SH	c = c - v R SH	
MINOR STREET							
EB LEFT	28	683	669 >	669 >	641 >	A	
RIGHT	36	998	998 >	823 >	759 >	>A	961 > A
MAJOR STREET							
NB LEFT	35	996	996	996	960	A	

IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... Marine Drive  
 NAME OF THE NORTH/SOUTH STREET.... Havekost Rd  
 DATE AND TIME OF THE ANALYSIS..... 1/12/90 ; 1989 PM  
 OTHER INFORMATION.... Existing conditions

Marine Dr. / Havekost  
Full Development

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW-RATE v (pcph)	POTEN-TIAL	ACTUAL	SHARED	RESERVE		LOS
		CAPACITY c (pcph) p	MOVEMENT CAPACITY c (pcph) M		CAPACITY c (pcph) SH	c = c - v R SH	
MINOR STREET							
EB LEFT	74	482	445 >	445 >	371 >	B	
RIGHT	91	964	964 >	634 >	469 >	>A	872 > A
MAJOR STREET							
NB LEFT	101	830	830	830	729	A	

IDENTIFYING INFORMATION

NAME OF THE EAST/WEST STREET..... Marine Drive  
 NAME OF THE NORTH/SOUTH STREET.... Havekost Rd  
 DATE AND TIME OF THE ANALYSIS..... 1/12/90 ; 2000 PM  
 OTHER INFORMATION.... With full development

# COMMENTS RECEIVED

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Final Environmental Impact Statement

1. Barbara and Michael Rudge, Charles and Patricia McClement, Jim and Sue Davis
2. Del Mar Community Service, Inc., Martin Corin, President, Board of Directors
3. Anne R. Smith
4. B.E. Stromberger
5. Sharon Weaver
6. Richard Hill
7. Donald and Helen Hayes
8. Georgene Finch
9. Jeff and Diana Holmes
10. John Ludwigson for Mr. & Mrs. William Kempthorn
11. John and Terri Lipke
12. Arthur and Helen Kermoade
13. Donna Rychetnik
14. Carol Ehlers

## Written Comments Received at November 16 Hearing

15. John H. Geary
16. Robert F. Viggers
17. Donna M. Rychetnik
18. James H. Morrow
19. Martin D. Corin

## Agency Comments

20. Department of Community Development, Office of Archaeology and Historic Preservation
21. Washington State Department of Transportation
22. Department of Wildlife
23. Department of Ecology
24. City of Anacortes, Public Works Department

## Comments Received After Oct. 25, 1989

25. Wells & Johnson
26. Larry Celwstka
27. Bricklin and Gandler
27. Vince Marions

# RESPONSE TO COMMENTS

## Final Environmental Impact Statement

### 1. Mr. and Mrs. Michael Rudge, et. al.

#### Proposed Action – Water Service

The site areas, except for the eastern two-thirds of the Middle Ninety, are zoned Residential. This zoning (see Figure 4, DEIS) which is generally the designation of property south of Anacortes and west of Havekost-Rosario Road to Madrona Drive, including the Seaview area, allows higher densities (maximum of up to 3 units per gross acre or minimum 12,500 sq. ft. lot size, provided Health Department approval is given). Since the higher density zoning is in place it was concluded that water is following land use decisions and not causing the decisions. The land area zoned Residential is contiguous from Anacortes south to the Madrona Dr./Biz Point area. The proposals which are within this zone do not cause a "leap-frog" development, but rather comply with existing land use designations in the area.

There is no doubt that extension of water service south from Anacortes, or north from the SR-20/Rosario road intersection area, would facilitate development of the south Fidalgo Island area and may encourage requests to rezone property from Rural Intermediate (2.5 acre lots) to Residential (approx. 3 lots/acre).

#### Sewer Service

It is expected that there will be pressure for extension of sewer from Anacortes to the proposed development sites, but, assuming the Anacortes Interim Annexation Policy and utility service extension policies remain the same, it is doubtful such extension will occur in the near future (next 10 years). Anacortes policy requires annexation to the city in conjunction with extension of sewer service and development of roads and utilities to Anacortes standards. The Pointe could be annexed since it is contiguous, but the Middle Ninety and Seaview would be extremely difficult to annex without majority support of all property owners south to Biz Point.

The Pointe does not meet city standards for roads and sidewalks, therefore is an unlikely candidate for annexation.

As is stated on pages 31 and 32 of the DEIS the county should be cautious in requirements for drainfield size and in constant monitoring of systems to assure that systems are not failing.

If it is proposed that sewer be extended south of Anacortes, SEPA review would be required.

#### No Action

The term "similar" is used in relation to natural elements of the environment which would be impacted by

roads and clearing to serve approximately 75 homes on 2.5 acre lots. As stated on page 4 of the DEIS, these impacts would be similar, but at "...a lower rate and intensity."

#### Development at Lower Density

Lower density development would reduce impacts, but not avoid impacts to natural elements and traffic hazards.

#### Natural Elements – Soils

Refer to Additions and Corrections, Soils Map and to Hydrogeologic Study by Carr-Associates. The DEIS states that rocky land portions of The Pointe and Middle Ninety are not suitable for drainfield systems and will require mound systems and a minimum one acre lot size.

#### Water – Impacts

That portion of the Middle Ninety which is in the Lake Erie watershed is approximately twenty acres (currently zoned for 2.5 acre lots) which would support five to thirty houses depending upon zoning, soil tests and road layout. Standard drainage and erosion control measures, combined with the distance to the lake (approx. 1,000 ft.) would mitigate impacts to lake water quality.

#### Plants and Animals

In the scoping process, plants and animals were not identified as an area of particular concern or concentration. Please refer to Department of Wildlife comment and response.

#### Built Environment – Population

Population increases in the Fidalgo Island area will adversely change the quality of life through such impacts as increases in traffic and incidents of crime and disturbances resulting from additional human activity. These impacts are recognized in the DEIS, and changes of quality of life will occur, but perceptions of rural character will differ from individual to individual perception.

#### Aesthetics

Views of the hillsides above Burrows Bay would be altered with development clearing and construction of houses. These views have been previously altered with development along the shoreline west of Marine Drive and Havekost Road, but further man-made intrusion into the viewscape will contribute to the cumulative alteration of the forested view.

# RESPONSE TO COMMENTS

## Final Environmental Impact Statement

### Transportation

Please refer to Additions and Corrections section for additional Transportation information.

### Public Services and Utilities – Fire and Police

The Draft EIS recognizes increased demand for police and fire protection services as well as aid calls (pages 29 and 30). These impacts will strain the capacity of existing service systems, and although increases in property valuation and tax revenues will mitigate these impacts, additional demands are unavoidable.

### Water/Stormwater

As stated in the Draft EIS, page 31, when there is doubt about capacity of site to handle drainfield requirements, larger lot sizes should be required to provide a safety margin. If county decision makers do not have confidence in drainfield design or maintenance, then system requirements should be strengthened, because of the potential for pollution of natural drainage and drinking water supplies. If there is evidence of failing, additional plats should not be allowed over the long-term, unless appropriate alternative systems are incorporated into the development.

## 2. Del Mar Community Services

Changes in figures. Please see Additions and Corrections for changes and additions to Figures.

### Plants and Animals

Refer to comments from Department of Wildlife for discussion of habitat and habitat protection. The department concludes that the "preferred alternative" for habitat protection would be "No Action or Lower Density alternatives."

Logging permits and Class IV Forest Practices permits for conversion of land from forestry to residential use are required.

The wetland east of Seaview which is on the Jack Mayer property is a lowland area which has been converted into a lake. A portion of the lowland extends into the edge of Seaview. Development within this area should be designed to avoid runoff of sediments and surface pollutants into the private lake. Septic tanks and drainfields should also be designed to avoid potential pollution of the lake. This may require setbacks and/or deletion of lots along this site particularly upon the steeper slopes.

### Energy and Natural Resources

Natural gas lines could present hazards during severe earthquakes and should be engineered to minimize such risk.

### Noise

Noise from small, general aviation aircraft should not present significant noise impacts unless the aircraft are operating below FAA regulated altitudes.

Navy aircraft noise does occur, and could increase in the future, but the area should remain out of the flight path of the airfield pattern where regular lower level operations cause greatest noise impacts.

Truck noise and construction noise creates adverse noise impacts to neighboring properties. Truck noise on Marine Drive and Havekost Road are common, particularly when trucks operate at high speeds. Much of the truck noise is related to nearby gravel pit operations and unrelated to the specific proposals.

### Recreation

No plans for a linking trail have been developed by public agencies and no "line" or right-of-way easement has been drawn.

Increased traffic upon area roads, both residential and tourist generated traffic, will increase hazards to cyclists. Road widening and signing to caution users regarding hazards would mitigate but would not avoid this threat.

### Police

Comments and recommendations, no response required.

### Schools

Development of the property will increase valuation of property and increase property tax revenues within the school district boundaries. These increases will not alleviate the levy problem, but they will, by increasing value, reduce the amount of levy needed to collect the same amount of total dollars. The developers should be required, if not done voluntarily, to coordinate with the school district for student transportation and safety needs. The county has been contacted by the school district and intends to coordinate discussion between the developer and the district to mitigate potential impacts to the district as a result of this proposal.

# RESPONSE TO COMMENTS

## Final Environmental Impact Statement

### Population

The Planning Department does not receive population updates for geographic areas except for regular census data. Population growth estimates for the area are being revised because of recent rate-of-growth increases. No official population figures are available, but increases in the Fidalgo Island area appear to exceed the two percent per year projections.

### Housing

The housing density description as "low" is relative to the zoning ordinance language which designates high density, single family housing as in the 7,500 square foot lot range. The proposed density is high compared to 2.5 acre lot size, but is lower than what is the maximum density allowed under the zoning at The Pointe and Seaview.

### Aesthetics

Removal of trees for housing site and road development will impact views of forested slopes. This impact will be most noticeable during early phases of construction prior to growth of landscaped vegetation.

Covenants restrict materials and structures allowed with the developments.

#### 3. Anne R. Smith

Letter in opposition to proposal, no response required.

#### 4. B.E. Stromberger

Reference to flooding of Alexander Beach properties and concern regarding future flooding as a result of increased runoff from the proposed development.

#### 5. James L. and Sharon S. Weaver

Concern regarding contamination of private water supply below the Middle Ninety proposal, and concern regarding worsening traffic hazard conditions on Marine Drive.

Any development in the Middle Ninety area should be required, by the County, to submit hydrogeologic reports and recommendations relative to potential

downslope water source pollution. Access to Rosario Road should be regulated to assure that intersection sight distances meet highway standards.

#### 6. Richard Hill

Refer to Traffic Count information for updated counts. Potential impacts to wetland are discussed in response (2) above. Noise impact are discussed in response (2) above.

#### 7. Donald and Helen Hayes

Opposition to and recommendations for the proposal, no specific response required. Comments noted.

#### 8. Georgene Finch

Concern regarding impacts to quality of life, no specific response required. Comments noted.

#### 9. Jeff and Diana Holmes

Concern regarding runoff, traffic and pollution of water source. No specific, additional responses required.

#### 10. John S. Ludwigson representing Mr. and Mrs. William Kempthorn

Concern and protest regarding drainage from The Pointe. Refer to additional Drainage information.

#### 11. John and Terri Lipke

Concern regarding flooding and water pollution. No specific, additional response required. Comments noted.

#### 12. Arthur and Helen Kermoade

Concern regarding runoff water impacts to house situated adjacent to stream which flows south of The Pointe, and concerns regarding overall impacts to area flora and fauna.

Refer to Department of Ecology letter from Dave Garland, Hydrogeologist regarding runoff concerns and mitigation. Leonard and Boudinot, Engineers have begun monitoring of the stream near the Kermoade property.

# RESPONSE TO COMMENTS

## Final Environmental Impact Statement

Information from this monitoring should be made available to the County and interested parties.

### 13. Donna M. Rychetnik

Concern regarding runoff, water source contamination and traffic hazards. No specific, additional response required.

### 14. Carol Ehlers

Concern regarding runoff, particularly from the proposed Seaview IV and V areas.

Prior to consideration of Seaview IV and V, the County should require detailed drainage plans for the site (including flows to the east at Devils Elbow) and outline the required erosion and sediment control measures to be undertaken during construction. These plans and measures should assure downstream owners that no runoff volume above existing levels will result from development.

### 15. John H. Geary, testimony

Concern regarding traffic hazards, public services and schools. Also concern that EIS did not provide sufficient detail and omissions. No specific, additional responses required. Comments noted

### 16. Robert F. Viggers, testimony

Concern regarding lack of long range planning and coordination for the area. No specific, additional responses required. Comments noted.

### 17. Donna M. Rychetnik, Testimony at hearing on November 16, 1989

Concern regarding runoff and traffic hazards in the Middle Ninety area. No specific, additional response required.

### 18. James H. Morrow, testimony

Concern regarding drainage from each of the sites and lack of conformance with Skagit County drainage requirements and State Forest Practices Act.

Don Nelson of the Skagit County Public Works Department has inspected the existing drainage system and his observations and recommendations are to be included in subsequent county review of development applications.

### 19. Martin D. Corin, Testimony at hearing on November 16, 1989

A description of Del Mar Community Services Inc. and concern regarding impacts to Del Mar Community Services, Inc. No specific, additional responses beyond additional information and corrections are required.

### 20. Department of Community Development, Office of Archaeology and Historic Preservation

A recommendation that a cultural resource survey of the area be included in development approval.

### 21. Washington State Department of Transportation

Refer to additional traffic count and level of service information above.

### 22. State of Washington Department of Wildlife

Recommendations for protection of stream corridors and wildlife habitat. These recommendations should be included as conditions in county approval of development.

The Department of Wildlife position is that No Action or Lower Density alternative is the preferred alternative.

### 23. State of Washington, Department of Ecology

Concern regarding impact of The Pointe development on water quality and quantity. It is recommended that impacts could be mitigated with adequate streamside buffers or biofiltration basins below the development.

### 24. Anacortes Public Works Department

Reference to opposition to Anacortes fire hydrant maintenance policy which requires a monthly fee to pay for ongoing maintenance and inspection of hydrants to assure they are in working order. Charges to fire districts for this service are objected to by fire districts.

Subdivisions must be to city standards when and if sewer is extended to serve the subdivisions. This requirement does not apply to extension of water service.

Concern regarding early negotiation and coordination of water service agreements and concurrence with EIS that these agreements should be discussed and planned prior to further development.

Additional traffic information includes a peak hour count on Anaco Beach Road. A recommendation is made for immediate right-of-way acquisition from The Pointe to Havekost Road.

# **RESPONSE TO COMMENTS**

---

**Final Environmental Impact Statement**

## **COMMENTS RECEIVED AFTER OCT. 25, 1989**

### **25. Wells and Johnson**

1. The EIS recognizes that sewer service may not extend to the proposed project areas. This should result in a lower density and lower total number of lots.
2. The protective covenants are available at the County Planning, and Community Development Department.
3. Refer to new traffic counts and analysis of levels of service.

### **26. Larry Celustka**

The Draft EIS (page 28) recognizes that Sharpe Lane does not have capacity for additional traffic. County conditions for approval of Seaview 1 and 2 contain an exclusion on use Sharpe Lane except for emergency use.

### **27. Bricklin & Gendler**

Comments concerning the process noted.

### **28. Vince Marlions**

Letter of opposition to additional development.  
Comments concerning runoff and renewal of trees noted.

1

RECEIVED  
OCT 23 1989  
Skiagit County

1471 ROSARIO ROAD  
ANACORTES, WA 98221

Development at Lower Density Again this conclusion is unjustified and biased in favor of the Developer.

October 25, 1989

Betsy Stevenson  
Department of Planning & Community Development  
Skiagit County Administration Building  
Mount Vernon, WA 98273

RE: Comments on deficiencies of the Draft Environmental Impact Statement for Long-Term Development Plan Concept and Short-Term Subdivision Proposal For San Juan-Fidalgo Properties.

Dear Ms. Stevenson,

In order to deal with the deficiencies of this EIS in a logical approach, comments will relate to topic headings. However, the Summary will be discussed at the end.

Proposed action-Water Service The discussion of water line extension should have a lengthy analysis of the growth impact to neighboring properties and area as a whole. The expansion of infrastructure, such as roads, waterlines, and sewer lines has long been recognized as causal to suburban sprawl and uncontrolled growth. (WAC 197-11-060[4][d]) This analysis does not even discuss this indirect impact. Sections should be added to discuss the impact of these leap-frog developments and the expansion of waterlines, roads and eventually sewer extensions necessitated by them.

Sewer Service While the developers of this project do not now propose the extension of sewer lines to the project area, the soils conditions ( see Natural Elements-Soils ) are severely limited to accommodate drainfields and as a result systems fail on rocky sites found at both the Pointe and the Middle Ninety, the pressure to make sewer extensions will become great. WAC 197-11-060(4)(d) states that extension of sewer lines would tend to encourage development in previously unsewered areas" and a SEPA review should discuss this indirect impact on the area. Phasing of growth should be considered in relation to this impact.

No Action The conclusion that no action would have similar results is a biased conclusion. If the sites were divided into 5 acre and larger sites, water line extension would be unnecessary, as on site wells could provide the limited service needed in a rural atmosphere. Larger parcels and limited water service would lessen the sewage demands on the poor soils and the need for sewer extensions would be eliminated. Also the need to build a new connection road between the Pointe and Havacost Rd. would be unnecessary. This would reduce the indirect impact to growth and sprawl.

Natural Elements-Soils The Soils information supplied is out-of-date and incomplete. (see attached Soils materials from the Soil Conservation Service) The area has been remapped and apparently the Authors failed to check their information. Accurate soils classifications and their correct characteristics are available from Steve Nissly, Soil Conservation Service, 227 N. 4th St. Room 104, Mt. Vernon, Wa 98273. There is no discussion of the impact of the extremely poor soils, particularly the Fidalgo-Rock Complex, upon on-site sewage disposal. This is the major limitation on development of the area and the reason the sites have remained rural. The Islands Comprehensive Plan has noted that the western side of Fidalgo is unsuited to drainfields. How, then, can the authors fail to discuss the impact of 270 to 430 separate drainfields to land primarily composed of rock underlain soil of minimal depth, wetness and poor filtration (Fidalgo Rock) and/or compact glacial till, with cemented hardpan at 10 inches, perched water table and wetness (Catla).

Also, there was evidence of erosion at Seaview during rains last winter (1988). Bales of hay had to be placed in the ditches next to the entrance road to stop the silt from filling the open ditches along Rosario. Since then a lot more earth has been disturbed.

Water-Impacts There has been no analysis of the impact of 50-100 failing drainfields at the Middle-Ninety running off into Lake Erie below. The statement that these proposals are consistent with the Islands District Comprehensive Plan is misleading. The plan designates the area to residential but also states that the area is unsuitable for drainfields. Again, the EIS fails to be objective and completely explore the situation.

Plants and Animals This Flora and Fauna inventory does not deserve to be called one. The applicant must be required to provide a complete inventory by a competent expert in the field. Impact can only be determined by through complete knowledge of the flora and fauna effected.

Built Environment-Population An increase of 1000 people or a 200% increase to the existing population should have been explored more fully. This great an increase surely will change the quality of life and rural character of the area.

Aesthetics The EIS indicates that development was largely obscured from view. However, from the water the small number of structures already built are very visible. The EIS fails to even discuss the visual impact to the rural character of the area.



**Del Mar Community Service, Inc.**

P. O. Box 523  
Anacortes, Washington 98221

RECEIVED  
Skagit County  
OCT 25 1983

October 24, 1989

Ms. Betsy Stevenson, Assistant Planning Director  
Department of Planning & Community Development  
Skagit County Administration Building  
Mt. Vernon, WA 98273  
Community Development

RE: Draft Environmental Impact Statement for Long-Term  
Development Plan Concept and Short-Term Subdivision  
Proposal for San Juan-Fidalgo Properties

Dear Ms. Stevenson:

Del Mar Community Service, Inc. thanks the County for following the law, thus causing this EIS to be done and for the opportunity to comment. When analyzing long-range plans of a developer, even in a well known geographical area, thirty-thirty-five days (only twenty-one work days) is insufficient time to obtain access, analyze and comment on documents which should be used for both the drafting of an EIS and reviews of same. We therefore reserve the right to provide further information, analysis, complaints and objections, both at the hearing and, since this is portrayed as a long range planning document, in the future. It is our understanding that it is a requirement of State law that all persons owning property within 300 feet of areas involved in the EIS must be notified of its existence. This was not done. We are of the opinion that the procedure leading to this hearing is flawed. The response time to the EIS should be extended, allowing for proper notice to all affected property owners.

Representing more than fifty (50) citizens, we asked, in writing, for a hearing in August. We object to a process that assumes a Planning Department, hired by and representing us, should contact only the developer regarding the date and time of a hearing. We object to a procedure that assumes, because the developer has paid for the EIS, he alone can determine the rest of the process. We object to any hearing held during working hours, on a major, long-term planning issue involving most of a geographical area. We think it sets up a situation of proponents and opponents, rather than following SEPA policies to:

"encourage harmony between man and his environment; satisfy the social, economic and other requirements of present and future generations; and promote the general welfare."

We think that two of the SEPA policies apply particularly to this EIS:

"Fulfill the responsibility of each generation as trustee of the environment for succeeding generations;" and

"Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;"

The scope of this EIS and the size of the developments certainly justify requiring the applicant to do an up-to-date traffic count rather than relying on 5-10 years old. No reliable conclusions can be drawn from this old information. Even the untrained observer can tell that traffic has increased substantially in the intervening years. However, the growth impact to the area of construction of a connector road should be discussed and the long and short term costs of road construction, and road and sign illumination must be analyzed.

Public Services and Utilities - Fire and Police The Devey and Lake Erie Fire District, which is fully volunteer, provides first response to all traffic accidents on Fidalgo Island outside Anacortes City limits, not the Skagit Co. Sheriff. The Washington State Patrol provides accident investigation. Accident response already accounts for majority of the District's calls, with medical aid responses and fire responses being second and third, respectively. The district has approximately 1600 residents. The proposal will add approximately 1000 residents. It must be assumed that at some point a large population increase will make an all volunteer fire department, with no full time, live-in personnel inadequate. This will have a definite impact on the financial situation at the fire district. This impact should have been addressed.

Water/Stormwater The County has never monitored septic system for efficiency or repair. This is the reason that many septic systems on Fidalgo Island function poorly. Rural residents are often aware of the limitations of an on-site septic system. However, it is questionable whether buyers of 12,500 sq. ft. lots, with \$250,000 houses on them, realize that eventhough they can turn on the tap and have unlimited water at their disposal, that water does not "go away" like it does in a city. And when these 270 - 430 drainfields fail, the Health officials at Skagit County will neither know nor care until a lake or adjacent property becomes badly polluted

Summary The Proposals should be reduced to lower density development which is more suited to the poor soils and rugged terrain of these sites. Certainly, no down zoning should be approved. This EIS must be up-dated and completed to reflect the current situation.

Respectfully Submitted,  
Barbara and Michael Rudge  
*Ms. Mrs. Michael Rudge*  
Charles and Patricia McClelland  
*Charles Patricia McClelland*  
Jim and Sue Davis

Del Mar Community Service, Inc.  
October 24, 1989

We have no objection to planned growth of a residential nature in an area zoned residential. We have cooperated since 1950 with the County, State and the McCorkle family in the development and occupation of lands surrounding Burrows Bay. We will continue to protect the environment and the property of those who live in the area, and will cooperate with anyone or any organization that works with us.

However, Del Mar does object to and will fight any proposal that appears to destroy the community and/or the Corporation, that would break the 1962 contract, or that would destroy our water system.

Specific comments are attached, or will be forthcoming.

Very truly yours,

DEL MAR COMMUNITY SERVICE, INC.

*Martin D. Corin*  
Martin D. Corin, President  
Board of Directors

cc: Board Members  
Business Manager  
file

attachments

P.S.

*Due to lack of time, additional comments, which are currently in preparation, will be submitted later or at the Public Hearing*  
*Rotors*

A respectable analysis of this E.I.S. and the long-term as well as short-term proposals would require access to and review of the following documents and information:

From the Developer: Ten Year Concept Plan

From the County:

Comprehensive Plan for the Islands District, 1975 Documents incorporated by reference in it, viz.

- a. Maps of Island Area Planning District
- Geology
- Slope
- Soil
- Septic suitability
- Population
- Road circulation
- Existing land use
- Land ownership
- Island Area Comprehensive Plan

b. Skagit County Comprehensive Plan - January 1968. Comprehensive Land Use Planning Alternatives for the Skagit River Floodplain and Related Uplands, Skagit Regional Planning Council, April, 1973.

Skagit County Water, Sewerage, & Drainage Facilities Plan, Skagit Regional Planning Council, June 1970.

Skagit County - A Strategy for Environmental Protection and Economic Development, The Urban Land Institute, November, 1972.

Skagit County Agriculture: An Economic Mainstay, Department of Agriculture, Washington State Univ. 1972.

A Tourist & Recreation Strategy for Skagit County, Northwest American, 1972.

Puget Sound & Adjacent Waters Study, Pacific Northwest River Basins Commission, 1970.

Soil Survey - Skagit County Washington, U.S. Dept. of Agriculture, Soil Conservation Service, January 1960.

Overall Economic Development Plan (Skagit County Washington), Skagit County Development Assoc., 1972.

Skagit County Emergency Services Operations Plan, Skagit County Dept. of Emergency Services, Oct. 1972.

Skagit County Comprehensive Park & Recreation Plan, Jongejan, Gerrard, Associates, 1973.

Skagit County Water Quality Management Program,  
CH2M/HILL, 1974.

The most recent of these would be useful.

- c. Current census and economic data
- d. Comprehensive traffic studies and circulation analysis  
accident reports and sites  
speed problems
- e. Proposed sites identified on topographic maps that allow  
for real analysis, and  
sites identified on maps showing land ownership and plot  
maps contigous so that real local drainage and erosion  
problems may be identified.
- f. Road maps that show culverts and drains so that current  
problems can be mitigated and possible difficulties  
shown to prevent problems
- 9. The inclusion in such analysis of other proposed develop-  
ments and land owner perspectives on the Marine Drive/  
Havekist/Rosario Road corridor

From Anacortes: Anacortes-Fidalgo Island Coordinated Water System Plan  
Plans for use and expansion of the airport  
Anacortes Comprehensive Plan (and Service Area Plans)

From the State: Economic and Population forecasts they have prepared for  
this area

From Citizens: Local knowledge of problems, plans for future, experiences  
in mitigation from elsewhere, cooperation in dealing  
with changed circumstances

From Anyone: Historical and anecdotal information on specific sites,  
e.g., flooding of Lake Chiquita, houses that fell down  
slopes, changes in conditions, . . .

CHANGES IN FIGURES THAT WOULD CLARIFY DECISION MAKING:

Figure 1 Show the Anacortes airport; it can be identified on other maps  
if one knows to look for it. Very close to the Pointe, the  
noise factor can be expected to increase in the future.

Figure 4 Anacortes Urgan Service Area should be identified here, or  
somewhere, as a potential sewer district area and, therefore,  
annexation. There is some question regarding the inclusion or  
exclusion of the northern half of Del Mar - that would have  
to be ascertained by looking at the Anacortes Comprehensive  
Plan.

Figure 5 Since no "Anacortes Urban Services" are shown on this map,  
the title is misleading. It is, rather, "Some Fidalgo Island  
Water Purveyors" (since some are omitted) with a confusing  
line identifying what presumably comes from Beck (1985)  
Anacortes-Fidalgo Island Coordinated Water System Plan,  
Map IV-2. Beck's Figure VI-2 "Anacortes Future Water Trans-  
mission Alternatives", covering the entire western section  
of the Island, would be more useful to this EIS and for real  
long range planning.

Figure 6 This soils map is inadequate. To say the soils west of Rosario  
Road are Rd, and Biz Point is Rd, is to ignore the fine soils  
and geology map available in the County Planning Office. In  
that map, Rd becomes a very complex soil south of Rosario Rd,  
very vulnerable in spots to surface water erosion; Biz Pt.  
appears as the solid rocky head it is, and much more realistic  
planning and mitigation can be done. With such a well  
researched and documented map available, this one should be  
unacceptable for an EIS.

Figure 7a It may be a matter of style, but additional typographic maps,  
magnified to this size, would be easier to read and use for  
commentary.

Figure 7b There is no road leading due west from Marine Drive at the  
point marked on the map. Although on maps as a road, knowledge  
of the area from walking the private service road there would  
easily show that this "road", Lot 14 in Subdivision #2, is  
really a gully. The map would also show that service road,  
the gully under the culvert there at the south end, the  
Del Mar tank and road leading to it.

Figure 7c Since Seaview I, II, and III are plotted and have been before  
County officials, they should be, as they are, identified on  
this map and in the text. The rest of Seaview, referred to as  
IV and V, must be clearly differentiated in the text and  
indicated on the map so discussion about it can be understood.

Figure 9

Again, the title misrepresents map content. What is shown is the current Del Mar Community Services Water System (note connection between Del Mar only, and the Anacortes 12" main Del Mar system belongs to the City; thence uphill to Pointe II. These two systems must be differentiated since the Del Mar system is not available for future use by others. The Seaview tank and booster pump station are under construction. The Middle Ninety pump station presumes a connection to Del Mar that does not exist. See text for further comments.

Figure 10

Since virtually no recreation facilities are included on this map, it is not a "Recreation Map", but rather a map of "Area Parks and Public Lands". Were campgrounds, trailer parks, bicycle use, the proposed trail, etc. to be marked on it, "Recreation" could be kept. It would be useful to show these.

Figure 11

Traffic data five-ten years old on a document to plan for five-ten years in the future is ludicrous; if there is no recent data, then this must remain a demonstration of a poor and inadequate data base on which to make decisions. Monday and Friday, even in March and December, get weekend ferry traffic - so cannot be used for local traffic analysis. The 3/9/81 data is useless for sensing traffic patterns from Seaview to Anacortes on Route 20. There is no data from the Pointe to anywhere. On roads where there is a heavy tourist traffic, not only in summer, one study done on a Tuesday (8/4/84) cannot represent conditions, especially since the route to Skyline is ignored.

Topographic maps that include current subdivisions, especially of Del Mar, and other water purveyors, would allow for sensible comment by reviewers.

Plants & Animals pp.20-21

- \* additional fauna: coyotes, raccoons, quail, squirrels, moles
- \* query: Is not a DNR logging permit required on any of these three sites? Individuals must obtain one.
- \* The original draft omitted the Seaview wet land. While we appreciate this additional information as evidence our scoping letter was read, there are no suggestions as to how this wet land would be maintained.

Energy and Natural Resources p.21

- \* If natural gas lines are extended south of Anacortes into the forested areas of Fidalgo Island, we believe measures should be taken through County ordinance to reduce the danger of fire such as in San Francisco this fall, in case of earthquakes.

Noise p.21

- \* There are three noise problems:
  - 1) Flights from Anacortes airport will impact the Pointe severely in the future. There are already times when student pilots fly in close circles around and around over the same houses to the south.
  - 2) Navy noise is lessened now Commander Sehlin is in control, but there would not be a local group FISE on Fidalgo Is. and one, GEIT, on Guemes Island, if the area were well beyond normal flight patterns. Further, the Navy would not have been forced to do an EIS - still incomplete - had there been no problem.
  - 3) Traffic noise - tolerable when speed laws are obeyed, but speeding trucks and cars, grinding brakes and changing gears are often annoying, especially at 6-8 a.m. We agree with the recommendation to limit hours of truck traffic to after 8 a.m.; they might be extended to 6 p.m. This should apply to all three sites and be included in the permits. It should apply immediately to Seaview and the Pointe.

Recreation p.24

The description of existing conditions is extremely difficult to follow. It should be reorganized to improve clarity.

- \* Since the proposed trail is impacting the Developer, a line on a map would help the rest of us understand what is being considered.