



PLANNING AND COMMUNITY DEVELOPMENT

Paul A. Roberts
Director

December 1996

Dear Reader,

In May of this year, the City of Everett published a Draft Environmental Impact Statement for the SW Everett/Paine Field Subarea Plan. The plan represents a new approach to land use planning and environmental review, integrating the environmental review with land use. We believe through this approach, environmental quality will be enhanced and significant reductions in permit processing time realized. The plan prospectively examines impacts expected to result from the development of this subarea and integrates the environmental review and mitigation measures into the plan. When complete, the plan will rely on a revised permit system to expedite projects which are consistent with the plan, assure that the mitigation measures are applied, and monitor impacts associated with development.

The SW Everett plan is intended to serve as the basis for authorizing "planned actions" (under RCW 43.21C.031 as amended). "Planned action" provisions were a result of the Governor's Task Force on Regulatory Reform which was authorized by the 1995 legislature. These provisions allow expediting projects which are consistent with land use plans and environmental reviews. The SW Everett plan is the first of its kind in the state to take advantage of the planned action provisions of state law, though other jurisdictions are preparing similar plans.

The SW Everett/Paine Field Subarea Plan and Final Environmental Impact Statement (FEIS) represent the conclusion of the environmental review for the plan and the beginning of the process to adopt the plan. In December, the Everett Planning Commission will begin holding public meetings on the plan. The Commission will hold final hearings in early 1997 and make a recommendation on adoption to the Everett City Council. City Council will also hold public hearings and could adopt the plan early in 1997. Upon adoption, the City will begin processing applications for development in the subarea under the new planned action structure. Adoption of the plan by the City would not affect the way Snohomish County processes permits in the study area.

The City of Everett is grateful for the participation, assistance and support we have received in development of this Subarea Plan and EIS. We acknowledge and thank the following organizations, committees and individuals:

Washington State Department of Community Trade and Economic Development
Snohomish County Economic Development Council
Snohomish County Airport, Paine Field
Citizens Advisory Committee

CITY OF EVERETT

2930 Wetmore Avenue, Suite 100 • Everett, WA 98201 • (206) 259-8731 • Fax (206) 259-8742

GMA/SEPA Management Team
Technical Advisory Committee
Clay Bush and the Fluke Corporation
Frank Figg and the Boeing Company
Achilles
Associated Sand And Gravel
Intermec
Quadrant
Michael McCormick
Pentec Environmental
Gary Pivo
Shockey/Brent, Inc.
Michael Smith
Mary Cunningham and the Planning Department Staff

As we enter the formal adoption process, we welcome comments and input on the plan. You may submit your comments directly to the Department of Planning and Community Development, 2930 Wetmore, Suite 100, Everett, WA 98201. We value your input and participation, and we look forward to hearing from you.

Sincerely,



Paul A. Roberts
Director



PLANNING AND COMMUNITY DEVELOPMENT

Paul A. Roberts
Director

May 28, 1996

Dear Reader,

This SW Everett/Paine Field Subarea Plan and Draft Environmental Impact Statement represent a new approach to land use planning and environmental review. It is an integration of the environmental review with the land use plan, where development and environmental trade-offs are examined prospectively in the land use plan. This approach merges elements of the State Environmental Policy Act (SEPA) with the Growth Management Act (GMA) and is intended to provide improved land use management and decision making for the public and elected officials.

The SW Everett/Paine Field Subarea is approximately 4,000 acres in size and is designated for industrial uses (manufacturing, heavy manufacturing, and office and industrial) in Everett's GMA Comprehensive Plan adopted in 1994. The Subarea is home to The Boeing Company, Fluke Corp., Intermec, Paine Field, Tramco and other manufacturing businesses. Within the Subarea there are large parcels of undeveloped land, as well as land with additional development capacity. There are also environmental features such as steep slopes, streams and wetlands which are identified in this plan.

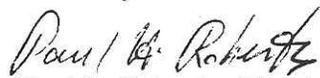
Environmental analysis of the area presumes the land use designations to remain constant. The DEIS analyzes the impacts of three alternatives with different rates of employment growth in the Subarea, and identifies potential mitigation measures. A permit system is designed to address the integration of the environmental review as a part of the plan. As projects are proposed, they will be reviewed to determine their consistency with the plan. If they are within the scope of this plan and environmental analysis, mitigation measures will be applied and the projects will be approved.

Public comment on the project review will be substantially limited under SEPA, since the environmental review is being done at the plan level. Therefore, it is especially critical that the public have an opportunity to comment on the plan and environmental analysis.

To expedite the public process, we have been working with a citizens committee throughout development of this project. They have served as a sounding board for the City and the County, providing valuable input to plan development. We are now soliciting comment from the broader public by publishing this plan and DEIS. You may submit your comments directly to the Department of Planning and Community Development, 2930 Wetmore, Suite 100, Everett WA 98201. We will be hosting a special public meeting to hear from interested citizens on Thursday, June 20th. (See details on fact sheet.)

In addition to these opportunities to comment, the Planning Commission and the Everett City Council will be holding public meetings and public hearings on the plan before taking any action. This environmental review is the first stage in the development of this subarea plan. We value your participation and your comments. If you have questions regarding this plan and environmental analysis, please feel free to call us at 206-259-8731 for further information or assistance.

Sincerely,


Paul A. Roberts, Director

**SW EVERETT/PAINE FIELD SUBAREA PLAN
FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)
December 1996**

Introduction and Directions

The Final EIS for the SW Everett/Paine Field Subarea Plan consists of revisions to the DEIS and two new sections. Generally, the revisions are shown in legislative style with old wording crossed out and new wording underlined. The exceptions are the Fact Sheet and Summary which have been significantly revised, and minor typographical errors.

Many of the revisions to the DEIS are in response to comments received on the DEIS. For these revisions, the initials of the letter-writer and the comment number are shown in the margin adjacent to the text revisions. For example, a revision in response to Snohomish County's letter comment #4, would have SC #4 written in the margin next to the change. Additional revisions have been made to correct errata found in the DEIS and to clarify certain points. While these revisions are shown in legislative style, initials and comment numbers will not be found in the margin adjacent to the changes.

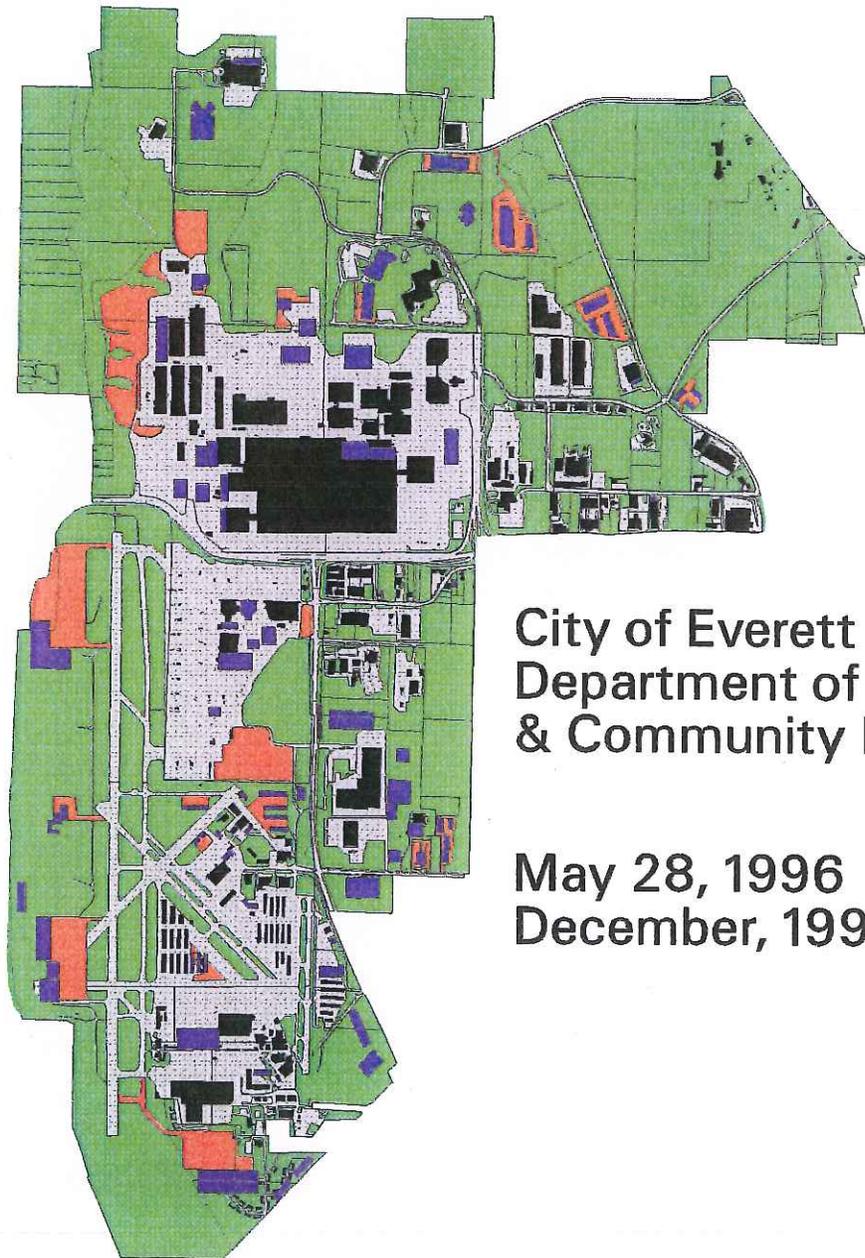
This FEIS information should be incorporated into the Draft Subarea Plan and DEIS notebook per the directions provided below.

REMOVE DEIS PAGES	INSERT REVISED FEIS PAGES
Introductory Pages	
	December 1996 cover letter (before May 28, 1996 letter)
	This page - FEIS Introduction and Directions (after May 28, 1996 letter).
Title page (colored map with DEIS date)	Title Page (colored map with FEIS date added)
	FEIS Fact Sheet before the DEIS Fact Sheet. (Keep the DEIS Fact Sheet.)
Table of Contents	Table of Contents
List of Figures (keep List of Tables and List of Photographs)	List of Figures
Summary	
Page 1-1 Pages 1-3 to 1-29	Page 1 - 1 Pages 1 - 3 to 1 - 26 (There are no new pages 1 - 27 to 1 - 29)
Draft Subarea Plan	
Pages 2 - 1 and 2 - 2 Pages 2 - 17 Page 2 - 18 (Figure 2.4-1) Pages 2 - 20 and 2 - 21 Pages 2 - 24 and 2 - 25	Pages 2 - 1 and 2 - 2 Pages 2 - 17 Page 2 - 18 (Figure 2.4-1) Pages 2 - 20 and 2 - 21 Pages 2 - 24, 2 - 25, 2-25A

REMOVE DEIS PAGES	INSERT REVISED FEIS PAGES
Draft Mitigation Strategy	
	Draft Mitigation Strategy divider after the Draft Subarea Plan section, and prior to Existing Conditions, Impacts and Mitigation divider
	Pages M-1 to M-103 after the Draft Mitigation Strategy divider. Figure M - 1 is page M - 52.
Existing Conditions, Impacts, Mitigation	
Pages 3 - 1 to 3 - 2 Pages 3.1 - 34 to 3.1 - 37	Pages 3 - 1 to 3 - 2 Pages 3.1 - 34 to 3.1 - 37
Pages 3.2-5 to 3.2-8 Pages 3.2-11 to 3.2-14 Pages 3.2-21 to 3.2-22 Pages 3.2-27 to 3.2-30 Pages 3.2-35 to 3.2-36 Pages 3.2-39 to 3.2-40	Pages 3.2-5 to 3.2-8 Pages 3.2-11 to 3.2-14 Pages 3.2-21 to 3.2-22 Pages 3.2-27 to 3.2-30 Pages 3.2-35 to 3.2-36 Pages 3.2-39 (There is no new 3.2-40)
Pages 3.4-30 to 3.4-31 Page 3.4-97 (Figure 3.4-40) Pages 3.4-100 to 3.4-101	Pages 3.4-30 to 3.4-31 Page 3.4-97 (Figure 3.4-40) Pages 3.4-100, 3.4-100A, and 3.4-101
Pages 3.6 - 1 to 3.6 - 4 Page 3.6 - 5 (Figure 3.6-2) Pages 3.6 - 6 and 3.6 - 7	Pages 3.6 - 1 to 3.6 - 4 Page 3.6 - 5 (Figure 3.6-2) Pages 3.6 - 6 and 3.6 - 7
Pages 3.7 - 18 to 3.7 - 26, Page 3.8 - 1	Pages 3.7 - 18 to 3.7 - 28, Page 3.8 - 1
Pages 3.8 - 32 to 3.8-33, Page 3.8 - 35 (Figure 3.8-7), Pages 3.8 - 36 to 3.8 - 40, Page 3.8 - 41 (Figure 3.8-8), Pages 3.8 - 42 to 43	Pages 3.8 - 32 to 3.8-33, Page 3.8 - 35 (Figure 3.8-7), Pages 3.8 - 36 to 3.8 - 40, Page 3.8 - 41 (Figure 3.8-8), Pages 3.8 - 42 to 43
DEIS Letters and Comments	
	DEIS Letters and Responses divider after the Existing Conditions, Impacts and Mitigation section and prior to the Appendices divider
	Section 4: Letters and Comments on the DEIS and City Responses
Appendices	
Pages A2 - 3 and A2 - 4	Pages A2 - 3 and A2 - 4
Pages A2.3.1 - 1 and A2.3.1 - 2	Pages A2.3.1 - 1 and A2.3.1 - 2
Miscellaneous	
	A parcel map overlay has been provided. This can be overlaid over many of the maps in the DEIS to help orient the reader concerned with specific parcels. Note that lot lines change, and the overlay may not reflect recent lot line changes.

SW Everett/Paine Field Subarea Plan and EIS

SEPA/GMA Integration Project



City of Everett
Department of Planning
& Community Development

May 28, 1996 DEIS
December, 1996 FEIS

Supported in part by a grant from the Washington State
Department of Community, Trade & Economic Development

FEIS FACT SHEET

Project Title: SW Everett/Paine Field Subarea Plan

Proposed Action: The proposed action is the adoption by City Council of the Faster Growth Alternative of the SW Everett/Paine Field Subarea Plan as part of the Everett GMA Comprehensive Plan.

When City Council adopts the Subarea Plan, future development of the Subarea consistent with the Subarea Plan will be designated as a Planned Action under ESHB 1724. An expedited development permit review process will be provided for projects consistent with the Subarea Plan, which fall within the thresholds analyzed in the EIS, and which comply with all local, state and federal regulations and the mitigation requirements adopted in the Subarea Plan. These projects will be "Planned Actions" and will not be subject to additional SEPA environmental review or project-level appeals.

It is likely that two ordinances would be adopted: an ordinance amending the Comprehensive Plan and a Planned Action ordinance which implements the expedited permit review process.

A portion of the Subarea is located in unincorporated Snohomish County (Snohomish County Airport, Paine Field properties). However, the Subarea Plan and expedited permit process would apply in Everett city limits only. Snohomish County will review the final Subarea Plan, recommendations for an expedited permit process, and implementation of the permit process for possible approaches the County may take to implement additional development recommendations pursuant to HB 1724.

Alternatives: The alternatives evaluated in the DEIS are three different rates of growth in the Subarea: The Existing Plans Alternative, which is consistent with the adopted GMA Comprehensive Plan; a Faster Growth Alternative; and a Slower Growth Alternative. The recommended alternative is the Faster Growth Alternative.

Location: The project is generally defined as that portion of the City of Everett and Snohomish County bounded on the north by the residential areas south of Mukilteo Blvd., on the south by Paine Field, on the east by Glenwood Ave. and Beverly Lane, and on the west by SR 525 and the City of Mukilteo.

Proponent: Economic Development Council of Snohomish County (EDC)
917 - 134th Street SW, Suite 103
Everett, Washington 98204

Lead Agency: City of Everett, Department of Planning and Community Development
2930 Wetmore Avenue, Suite 100
Everett, Washington 98201

City File Number: EIS #3-94

Responsible Official: Paul A. Roberts, Director
City of Everett Department of Planning and Community Development

City Contact Persons: Mary Cunningham, Planner
Gary Doughty, Planner
Robert Landles, Manager, Land Use and Environmental Review Section
(206) 259-8731

Permits/Licenses Required: Recommendation by Planning Commission and Adoption by City Council of a Subarea Plan and Planned Action permit process. Some ordinances may be revised to implement adopted mitigation measures.

Authors: This Final Environmental Impact Statement has been prepared by and under the direction of the City of Everett Department of Planning and Community Development. See the DEIS fact sheet for list of principal contributors.

FEIS Issue Date: December 1996

Future Public Hearings: Planning Commission and City Council will hold public hearings on the Subarea Plan before it is adopted. We expect the Planning Commission hearings will be held in January 1997. We expect City Council public hearings will be held in February 1997. If you would like to be notified of these hearings, please submit a written request or call the Planning Department at 259-8731.

Location of Background Data: Technical reports, background data and other relevant information are available for review at the following location:
City of Everett Department of Planning and Community Development
2930 Wetmore Avenue, Suite 100
Everett, Washington 98201

Availability and Cost of Documents: Copies of the Draft Subarea Plan and EIS can be purchased from the City of Everett Department of Planning and Community Development for \$40.00 per copy. The FEIS is free to those who purchased a DEIS.

Copies of the EIS are available for a free 10-day checkout from the City of Everett Department of Planning and Community Development.

Copies of the EIS are also available for review/circulation in the Main Branch and Evergreen Branch of the City of Everett Library and the Mill Creek Branch of the Sno-Isle Regional Library System.

FACT SHEET

Project Title: SW Everett/Paine Field Subarea Plan

Proposed Action: The proposed action is the adoption by City Council of the SW Everett/Paine Field Subarea Plan as part of the Everett GMA Comprehensive Plan.

When City Council adopts the Subarea Plan, future development of the Subarea consistent with the Subarea Plan will be designated as a Planned Action under ESHB 1724.

An expedited development permit review process will be provided for projects consistent with the Subarea Plan, which fall within the thresholds analyzed in the EIS, and which comply with all local, state and federal regulations and the mitigation requirements adopted in the Subarea Plan. These projects will be "Planned Actions" and will not be subject to additional SEPA environmental review or project-level appeals.

A portion of the Subarea is located in unincorporated Snohomish County (Snohomish County Airport, Paine Field properties). Snohomish County Council must decide whether to adopt the Subarea Plan and an expedited permit process for Paine Field properties.

Alternatives The alternatives evaluated in the DEIS are three different rates of growth in the Subarea: The Existing Plans Alternative, which is consistent with the adopted GMA Comprehensive Plan; a Faster Growth Alternative; and a Slower Growth Alternative.

Location: The project is generally defined as that portion of the City of Everett and Snohomish County bounded on the north by the residential areas south of Mukilteo Blvd., on the south by Paine Field, on the east by Glenwood Ave. and Beverly Lane, and on the west by SR 525 and the City of Mukilteo.

Proponent: Economic Development Council of Snohomish County (EDC)
917 - 134th Street SW, Suite 103
Everett, Washington 98204

Lead Agency: City of Everett, Department of Planning and Community Development
2930 Wetmore Avenue, Suite 100
Everett, Washington 98201

City File Number: EIS #3-94

Responsible Official: Paul A. Roberts, Director
City of Everett Department of Planning and Community Development

City Contact Persons: Mary Cunningham, Planner
Gary Doughty, Planner
Robert Landles, Manager, Land Use and Environmental Review Section
(206) 259-8731

Permits/Licenses Required: Recommendation by Planning Commission and Adoption by City Council of a Subarea Plan and Planned Action permit process.

Some City of Everett ordinances may be revised to implement adopted mitigation measures.

Authors and Principal Contributors: This Draft Environmental Impact Statement has been prepared by and under the direction of the City of Everett Department of Planning and Community Development. Research, analysis, and document preparation were provided by the following firms and individuals:

Project Manager, Principal Author Mary Cunningham, Planner
City of Everett Department of Planning and Community Development

Project Manager, Administration Jan Meston, Administrative Assistant
City of Everett Department of Planning and Community Development

Transportation Mike Smith
2132 Westlake Avenue North, #113
Seattle, WA 98109

Surfacewater, Wetlands, Streams, Vegetation, and Wildlife: Pentec Environmental
120 Third Avenue South, Suite 110
Edmonds, WA 98020
(206) 775-4682
Rhett Jackson, Julie Stofel, Sarah Cooke

Stephen Stanley, Mary Cunningham
City of Everett Planning and Community Development Department

Jane Zimmerman, Mike Papa, Dan Mathias
City of Everett Public Works Department

Utilities and Public Services **Sewer:**
Gary Doughty, Everett Planning and Community Development Dept.
Ken Howe, City of Everett Public Works Department

Water
Mary Cunningham, Dan Mathias

Solid Waste
Gary Doughty

*Mapping and
Photography* Roland Behee, GIS Analyst
City of Everett Planning and Community Development Department

*Document
Preparation* Kathy Davis, Jan Meston
City of Everett Planning and Community Development Department

*Land Use
Consultant:* Shockey/Brent, Inc.
2924 Colby Avenue
Everett, WA 98201

DEIS Issue Date: May 28, 1996

**DEIS Comment
Deadline** Written comments will be received through **June 28, 1996.**

**and
Public Meeting/
Workshop:** Comments on the DEIS will also be accepted at a public
meeting/workshop, which will be held as follows:

Date: June 20, 1996

Time: 6:30 PM

Location: Wall Street Building,
2930 Wetmore, 8th Floor Hearing Room

**Address Written
Comments to:** City of Everett Department of Planning and Community Development
Attn: Paul Roberts
2930 Wetmore Avenue, Suite 100
Everett, Washington 98201

**Future Public
Hearings** Planning Commission and City Council will hold public hearings on the
Subarea Plan before it is adopted. Planning Commission will hold
hearings first and make a recommendation to City Council. The hearings
have not yet been scheduled. If you would like to be notified of these
hearings, please submit a written request or call the Planning Department
at 259-8731.

Distribution List: See Appendix 1.

**Location of
Background Data:** Technical reports, background data and other relevant information are
available for review at the following location:
City of Everett Department of Planning and Community Development
2930 Wetmore Avenue, Suite 100
Everett, Washington 98201

**Availability and
Cost of
Documents:**

Copies of the Draft Subarea Plan and DEIS can be purchased from the City of Everett Department of Planning and Community Development for \$40.00 per copy.

Copies of the DEIS are available for a free 10-day checkout from the City of Everett Department of Planning and Community Development.

Copies of the DEIS are also available for review/circulation in the Main Branch and Evergreen Branch of the City of Everett Library and the Mill Creek Branch of the Sno-Isle Regional Library System.

ACKNOWLEDGEMENTS

The City of Everett pilot project on SEPA/GMA integration is the result of contributions by many individuals and organizations. We gratefully acknowledge these contributions and thank the many individuals who have given, and who continue to give, of their time and energy toward this effort. We would especially like to thank the GMA/SEPA Grants Management Team and the Citizen Advisory Committee.

GMA/SEPA Grants Management Team

Neil Aaland - Department of Ecology
Clay Bush - Fluke Corporation
Michael Cade - Sno. Co. Economic Development Council
Meg Fernekees - Snohomish County Department of Planning and Development Services
Frank Figg - The Boeing Company
David Koenig, Manager of Long Range Planning, City of Everett Planning Department
Bill Lewallen - Snohomish County Airport, Paine Field
Dick McCann - Perkins Coie Law Firm
Mike McCormick - Consultant
Gary Pivo - University of Washington Department of Urban Design & Planning
Peter Riley - Department of Community Trade & Economic Development
Reid Shockey - Shockey/Brent, Inc.
Mike Smith - Traffic Consultant

GMA/SEPA Citizen Advisory Committee

Joanne Bryant - Pinehurst Neighborhood
Clay Bush - Fluke Corporation
Lennie Rae Cooke - Save Our Community
Dirk Fieldcamp Jr. - The Boeing Company
Frank Figg - The Boeing Company
Art Hansen - Associated Sand & Gravel
John Jacobson - Saltwater Anglers of Mukilteo
Jerry Krell - View Ridge Madison Neighborhood
Bill Lewallen - Snohomish County Airport, Paine Field
Frank McCord - Cascade Savings Bank
Jerry O'Brien - Harborview - Seahurst - Glenhaven Neighborhood
Carson Schlamp - Harborview - Seahurst - Glenhaven Neighborhood
Reid Shockey - Shockey/Brent, Inc.
Ray White - Pilchuck Audobon

In addition to the project management team and citizens committee, many local and state agency staff contributed information and comments for this project including staff from the City of Everett, Snohomish County, Department of Ecology, Snohomish Co. PUD No. 1, Washington Department of Fish and Wildlife, Puget Sound Air Pollution Control Agency, Olympus Terrace Water District and Mukilteo Water District. The City would like to thank these agencies and individuals for their contributions to this document.

TABLE OF CONTENTS

List of Figures	i
List of Tables	iv
List of Photos	vi

Section 1: Summary

1.1	Description of Proposal	1 - 1
	Objectives of Proposal	1 - 1
	Location/Description of Subarea	1 - 1
	Description of Alternatives	1 - 3
	Monitoring	1 - 5
1.2	Major Issues to be Resolved	1 - 6
1.3	Thresholds, Impacts of Development, and Potential Mitigation Measures	1 - 6

Section 2: Draft Subarea Plan

2.1	Introduction and Purpose of Subarea Plan	2 - 1
2.2	Description of SW Everett/Paine Field Subarea	2 - 3
2.3	Proposed Action and Alternatives	2 - 5
	Introduction	2 - 5
	Alternatives	2 - 9
	Alternatives Considered, But Not Evaluated	2 - 15
2.4	Sites with Previous Development Approvals	2 - 17
	Master Plan Projects	2 - 20
	Projects Without Master Plans Subject to EMC 19.27.030	2 - 21
	Projects With Completed SEPA Reviews	2 - 22
	Projects Subject to Concomitant Agreements	2 - 23
	Projects Outside Everett City Limits In Snohomish County	2 - 24
	Vesting Issue	2 - 25
2.5	Proposed Permitting System	2 - 26
	Introduction	2 - 26
	Proposed Planned Action Permit Process	2 - 27
2.6	Parcel Database	2 - 37
2.7	Proposed Monitoring System	2 - 37

Section M: Draft Mitigation Strategy

3.1	Land Use	M - 2
3.2	Transportation	M - 14
3.3	Earth/Geologically Hazardous Areas	M - 20
3.4	Surface/Groundwater, Plants and Animals	M - 26
3.5	Air Quality and Odor	M - 62
3.6	Energy and Natural Resources	M - 68
3.7	Environmental Health	M - 73
3.8	Public Services and Utilities	M - 87

Section 3: Existing Conditions, Impacts of Development, and Potential Measures to Reduce the Impacts of Development (Mitigation Measures) 3 - 1

3.1 Land Use

3.1.1 Existing Conditions

Existing Development in the Subarea..... 3.1-1

Existing Development Adjacent to the Subarea in the "Edge Shed" 3.1-5

Historic and Cultural Preservation 3.1-8

Views 3.1-8

3.1.2 Regulatory Framework

Zoning Designations..... 3.1-9

Permitted/Evaluated Uses 3.1-10

Activities and Structures Accessory to Permitted Uses 3.1-17

Existing Development Standards - General..... 3.1-20

Existing Development Standards for Properties Abutting Residential Areas..... 3.1-38

Historic and Cultural Preservation 3.1-46

Views 3.1-46

3.1.3 Visual Impacts of Development

General 3.1-47

Development Adjacent to the Edge Shed 3.1-47

Historic and Cultural Preservation 3.1-49

Views 3.1-49

3.1.4 Potential Measures to Reduce the Impacts of Development

General 3.1-50

Development Adjacent to the Edge Shed 3.1-51

Historic and Cultural Preservation 3.1-51

Views 3.1-51

3.2 Transportation

3.2.1 Impact Shed for Transportation 3.2-1

3.2.2 Existing Conditions

Travel Demand..... 3.2-2

Existing Capacity, Safety and Condition 3.2-5

Financial Resources 3.2-11

Other Elements of the Affected Environment 3.2-12

City Regulations and Requirements for Transportation 3.2-14

3.2.3 Environmental Impacts

Introduction 3.2-16

Future Travel Demand Under DEIS Alternatives 3.2-16

Impacts 3.2-23

3.2.4 Proposed Mitigation Measures

Introduction 3.2-35

Transportation Mitigation..... 3.2-35

Discussion of Mitigation by Issue and Alternative 3.2-42

Site-Specific Mitigation and Requirements 3.2-50

3.2.5 Unavoidable Adverse Impacts

Higher Overall Roadway Congestion Levels 3.2-52

Increases in Overall Exposure to Noise, Light, Glare, Local Traffic 3.2-53

Higher Unit Costs and Lower Productivity for System Improvements 3.2-54

Continued Minimum Investment in Maintenance 3.2-55

3.3	Earth/Geologically Hazardous Areas	
	Existing Conditions.....	3.3-1
	Regulatory Framework.....	3.3-10
	Proposed Thresholds	3.3-13
	Impacts of Development	3.3-14
	Potential Measures to Reduce the Impacts of Development	3.3-15
3.4	Surface/Ground Water and Plants and Animals	
	<i>3.4.1 Introduction</i>	3.4-1
	Streams Draining the Study Area	3.4-5
	Vegetation and Wildlife.....	3.4-11
	Wildlife Corridors.....	3.4-16
	Locally Important Habitats.....	3.4-19
	Priority Wildlife Species.....	3.4-20
	Limiting Undesirable Wildlife	3.4-20
	Wetlands.....	3.4-20
	<i>3.4.2 Existing Conditions</i>	
	Basin Descriptions	3.4-35
	<i>3.4.3 Existing Regulatory Framework</i>	
	Groundwater Regulations.....	3.4-73
	Stormwater, Surfacewater, Stream and Wetland Regulations.....	3.4-74
	Plants and Animals Regulations.....	3.4-87
	<i>3.4.4 Impacts of Development</i>	3.4-89
	Stormwater Impacts to Streams	3.4-90
	Impacts on Vegetation and Wildlife	3.4-95
	Impacts on Streams, Fish and Fish Habitat.....	3.4-99
	Impacts on Wetlands.....	3.4-100
	<i>3.4.5 Potential Measures to Reduce Impacts of Development</i>	
	General Mitigation Measures	3.4-101
	Mitigating Impacts on Vegetation and Wildlife	3.4-103
	Mitigating Impacts on Streams, Fish and Fish Habitats.....	3.4-108
	Mitigating Impacts on Wetlands	3.4-110
	Mitigating Impacts on Water Quality.....	3.4-113
	Mitigating Impacts on Groundwater.....	3.4-115
	Specific Mitigation Measures for Study Area Basins	3.4-115
3.5	Air Quality and Odor	
	Existing Conditions and Regulatory Framework.....	3.5-1
	Impacts of Development	3.5-9
	Potential Thresholds	3.5-12
	Potential Measures to Reduce Impacts of Development	3.5-12
3.6	Energy and Natural Resources	
	<i>3.6.1 Electric Energy</i>	
	Existing Conditions.....	3.6-1
	Regulatory Framework.....	3.6-3
	Impacts of Development	3.6-3
	Proposed Thresholds.....	3.6-6
	Potential Measures to Reduce the Impacts of Development	3.6-7

3.6.2	<i>Natural Gas</i>	
	Existing Conditions.....	3.6-8
	Regulatory Framework.....	3.6-9
	Impacts of Development.....	3.6-9
	Proposed Thresholds.....	3.6-10
	Potential Measures to Reduce the Impacts of Development.....	3.6-10
3.6.3	<i>Nonrenewable Resources</i>	
	Existing Conditions.....	3.6-10
	Regulatory Framework.....	3.6-12
	Impacts of Development.....	3.6-12
	Thresholds.....	3.6-12
	Potential Measures to Reduce the Impacts of Development.....	3.6-12
3.7	Environmental Health	
3.7.1	<i>Noise</i>	
	Background.....	3.7-1
	Existing Conditions.....	3.7-2
	Regulatory Framework.....	3.7-6
	Impacts of Development.....	3.7-10
	Potential Thresholds.....	3.7-14
	Potential Measures to Reduce the Impacts of Development.....	3.7-14
3.7.2	<i>Toxic or Hazardous Materials and Explosives</i>	
	Existing Conditions.....	3.7-16
	Regulatory Framework.....	3.7-19
	Impacts of Development.....	3.7-23
	Proposed Thresholds.....	3.7-23
	Potential Measures to Reduce the Impacts of Development.....	3.7-23
3.8	Public Services and Utilities	
3.8.1	<i>Fire</i>	
	Existing Conditions.....	3.8-1
	Regulatory Framework.....	3.8-3
	Impacts of Development.....	3.8-4
	Proposed Thresholds.....	3.8-4
	Potential Measures to Reduce the Impacts of Development.....	3.8-6
3.8.2	<i>Police</i>	
	Existing Conditions.....	3.8-6
	Impacts of Development.....	3.8-7
	Proposed Thresholds.....	3.8-7
	Potential Measures to Reduce the Impacts of Development.....	3.8-7
3.8.3	<i>Schools</i>	
	Existing Conditions.....	3.8-8
	Impacts of Development.....	3.8-8
	Proposed Thresholds.....	3.8-10
	Potential Measures to Reduce the Impacts of Development.....	3.8-10

3.8.4 <i>Parks and Recreation</i>	
Existing Conditions.....	3.8-10
Impacts of Development	3.8-12
Proposed Thresholds	3.8-13
Potential Measures to Reduce the Impacts of Development	3.8-13
3.8.5 <i>Communications</i>	
Existing Conditions.....	3.8-13
Regulatory Framework.....	3.8-15
Impacts of Development	3.8-17
Proposed Thresholds	3.8-18
Potential Measures to Reduce the Impacts of Development	3.8-18
3.8.6 <i>Public Water Supplies</i>	
Existing Conditions.....	3.8-19
Regulatory Framework.....	3.8-19
Future Improvements	3.8-22
Impacts of Development	3.8-30
Proposed Thresholds	3.8-31
Potential Measures to Reduce the Impacts of Development	3.8-32
3.8.7 <i>Sewer</i>	
Existing Conditions.....	3.8-33
Regulatory Framework.....	3.8-37
Future Improvements	3.8-40
Impacts of Development	3.8-43
Proposed Thresholds	3.8-43
Potential Measures to Reduce the Impacts of Development	3.8-44
3.8.8 <i>Solid Waste</i>	
Existing Conditions.....	3.8-44
Impacts of Development	
Proposed Thresholds	
Future Improvements	3.8-47
Impacts of Development	3.8-47

Section 4: Letters and Comments on the DEIS and City Responses L - 1

Letters

Department of Community Trade and Economic Development	L - 2
Office of Archaeology and Historic Preservation	L - 9
Department of Ecology	L - 11
Snohomish County	L - 16
Puget Sound Air Pollution Control Agency	L - 22
Snohomish County PUD No. 1	L - 26
Community Transit.....	L - 28
HDMC Inc.	L - 31
Richard J. Clayton	L - 33
The Boeing Company	L - 34
Comments Received at June 20, 1996 Public Meeting (Howell D. Ledford)	L - 35

City Responses

Department of Community Trade and Economic Development	L - 37
Office of Archaeology and Historic Preservation	L - 46

Department of Ecology	L - 47
Snohomish County	L - 48
Puget Sound Air Pollution Control Agency	L - 54
Snohomish County PUD No. 1	L - 55
Community Transit.....	L - 55
HDMC Inc.....	L - 56
Richard J. Clayton	L - 58
The Boeing Company	L - 58
Comments Received at June 20, 1996 Public Meeting (Howell D. Ledford)	L - 58

Section 5: Appendices

A1	Distribution List
A2	References
A3	Mapping Methodology
A4	List of Abbreviations and Definitions
A2.3.1	Applicable Comprehensive Plan Policies (City of Everett and Snohomish County)
A3.1.1	City of Everett and Snohomish County SEPA Policies
A3.2.	Transportation
A3.4.1	Technical Definitions for Vegetation Communities and Wildlife Habitat.
A3.4.2	Plant Species Found in the Study Area
A3.4.3	Wildlife Species in the Study Area
A3.4.4	Wetland Assessment User's Manual
A3.4.5	Wetland Assessment Scores
A3.4.6	Native Plants of the Puget Sound Lowlands Recommended For Wildlife

LIST OF FIGURES

Section 1: Summary

Figure 1.1-1	Subarea Location Map.....	1 - 2
Figure 1.1-2	2012 and 2030 Employment Forecasts for Alternatives	1 - 5
Figure 1.3-1	Proposed Transportation Mitigation for All DEIS Alternatives.....	1 - 30
Figure 1.3-2	Transportation Facilities That Will Exceed Capacity With Mitigation.....	1 - 31

Section 2: Draft Subarea Plan

Figure 2.2-1	Subarea Location Map.....	2 - 4
Figure 2.3-1	Comprehensive Plan.....	2 - 7
Figure 2.3-2	Zoning Map.....	2 - 8
Figure 2.3-3	2012 and 2030 Employment for Alternatives.....	2 - 11
Figure 2.3-4	EMAZs.....	2 - 13
Figure 2.4-1	Sites with Previous Development Approvals	2 - 18
Figure 2.4-2	Current and Master Planned Development	2 - 19
Figure 2.5-1	Planned Action Permit Process.....	2 - 29
Figure 2.5-2	Permit Process for Project That Does Not Meet Planned Action Criteria..	2 - 30

Section M: Draft Mitigation Strategy

Figure M-1	Habitat Function (Potentially Filled Wetlands).....	M - 52
------------	---	--------

Section 3: Existing Conditions, Impacts, Potential Mitigation Measures

Section 3.1	Land Use	
Figure 3.1-1	Edge Shed.....	3.1-6
Figure 3.1-2	Zoning in the Edge Shed.....	3.1-7
Figure 3.1-3	Airport Airspace Plan (See plans on file at Paine Field for detail).....	3.1-24
Figure 3.1-4	Type I, II and III Landscaping.....	3.1-27
Figure 3.1-5	Landscape Buffers, Setbacks and Building Heights for Properties Adjacent to Residentially Zoned Areas	3.1-40
Section 3.2	Transportation	
Figure 3.2-1	Impact/Mitigation Shed for Transportation.....	3.2-1
Figure 3.2-2	Trip Orientation - Direction of All Trips in 1990.....	3.2-2
Figure 3.2-3	Mode of Travel to Work.....	3.2-3
Figure 3.2-4	Existing Daily Vehicle Volumes on Shed Arterials and Freeways.....	3.2-4
Figure 3.2-5	Existing Transit Routes	3.2-6
Figure 3.2-6	Existing Generalized Vehicle Capacity.....	3.2-7
Figure 3.2-7	Existing Signalized Intersections and Level of Service.....	3.2-8
Figure 3.2-8	Accidents in the Impact Shed.....	3.2-9
Figure 3.2-9	Cost of Road Maintenance.....	3.2-10
Figure 3.2-10	Carbon Monoxide and Ozone Non-Attainment Areas.....	3.2-13
Figure 3.2-11	Mode Split Planning Assumptions.....	3.2-17

Figure 3.2-12	Screenline Vehicle Volumes and Volume/Capacity Without Mitigation	3.2-19
Figure 3.2-13	2015 Daily Vehicle Volumes by DEIS Alternatives	3.2-20
Figure 3.2-14	2030 Daily Vehicle Volumes by DEIS Alternative	3.2-21
Figure 3.2-15	2015 Volumes at Signalized Intersections, Capacity Deficiencies	3.2-22
Figure 3.2-16	Major Facilities Exceeding Capacity Without Mitigation - 2015	3.2-25
Figure 3.2-17	Major Facilities Exceeding Capacity Without Mitigation - 2030	3.2-26
Figure 3.2-18	Potential Carbon Monoxide Hotspots, 2015, Without Mitigation	3.2-29
Figure 3.2-19	Neighborhoods and Access Corridors with Sensitive Receptors	3.2-33
Figure 3.2-20	Environmentally Sensitive Travel Corridors	3.2-34
Figure 3.2-21	Proposed Mitigation, All DEIS Alternatives	3.2-41
Figure 3.2-22	Screenline Volume to Capacity Ratio With & Without Mitigation - 2015	3.2-46
Figure 3.2-23	Major Facilities Exceeding Capacity, With Mitigation - 2015	3.2-47
Figure 3.2-24	Unmitigated Congestion	3.2-52

Section 3.3

Earth

Figure 3.3-1	Shaded Topographic Map	3.3-2
Figure 3.3-2	Perspective View of Topography	3.3-3
Figure 3.3-3	Soils	3.3-5
Figure 3.3-4	Landslide Hazards	3.3-9
Figure 3.3-5	Erosion Hazards	3.3-11

Section 3.4

Surface Water, Plants and Animals

Figure 3.4-1	Surface Water Study Area	3.4-2
Figure 3.4-2	Salmonid Distribution in Study Area	3.4-3
Figure 3.4-3	Priority Habitats and Species	3.4-4
Figure 3.4-4	Currently Undeveloped Land	3.4-18
Figure 3.4-5	Wetlands, Ponds, Streams and Drainage Basins	3.4-21
Figure 3.4-6	Overall Wetland Score Map	3.4-24
Figure 3.4-7	Flood and Stormwater Control Map	3.4-25
Figure 3.4-8	Hydrologic Support Map	3.4-26
Figure 3.4-9	Water Quality Improvement Map	3.4-27
Figure 3.4-10	Habitat Functions Map	3.4-28
Figure 3.4-11	Natural Biological Support Map	3.4-29
Figure 3.4-12	Flood and Stormwater Control - Average Wetland Scores by Basin	3.4-31
Figure 3.4-13	Hydrologic Support Graph - Average Wetland Scores by Basin	3.4-32
Figure 3.4-14	Water Quality Improvement - Average Wetland Scores by Basin	3.4-32
Figure 3.4-15	Natural Biological Support Graph - Average Wetland Scores by Basin	3.4-33
Figure 3.4-16	Habitat Functions Graph - Average Wetland Scores by Basin	3.4-34
Figure 3.4-17	Big Gulch Basin Map	3.4-36
Figure 3.4-18	Wetland Assessment Scores for Big Gulch	3.4-38
Figure 3.4-19	Japanese Gulch Basin Map	3.4-41
Figure 3.4-20	Wetland Assessment Scores for Japanese Gulch	3.4-43
Figure 3.4-21	Edgewater Creek Basin Map	3.4-45
Figure 3.4-22	Wetland Assessment Scores for Edgewater Basin	3.4-46
Figure 3.4-23	Powder Mill Gulch Basin Map	3.4-47
Figure 3.4-24	Wetland Assessment Scores for Powder Mill Gulch	3.4-50
Figure 3.4-25	Narbeck Basin Map	3.4-52
Figure 3.4-26	Wetland Assessment Scores for Narbeck Basin	3.4-53
Figure 3.4-27	Merrill and Ring Creek Basin Map	3.4-55

Figure 3.4-28	Wetland Assessment Scores for Merrill and Ring Creek	3.4-57
Figure 3.4-29	Phillips Creek Basin Map	3.4-59
Figure 3.4-30	Wetland Assessment Scores for Phillips Creek.....	3.4-60
Figure 3.4-31	Glenwood Creek Basin Map	3.4-61
Figure 3.4-32	Wetland Assessment Scores for Glenwood	3.4-63
Figure 3.4-33	Seahurst-Glenhaven Basin Map	3.4-64
Figure 3.4-34	Wetland Assessment Scores for Seahurst-Glenhaven Basin	3.4-65
Figure 3.4-35	Pigeon Creek #2 Basin Map	3.4-66
Figure 3.4-36	Wetland Assessment Scores for Pigeon Creek #2 Basin	3.4-69
Figure 3.4-37	Swamp Creek Basin Map.....	3.4-71
Figure 3.4-38	Wetland Assessment Scores for Swamp Creek Basin	3.4-72
Figure 3.4-39	Currently Undeveloped Land.....	3.4-96
Figure 3.4-40	Undeveloped Land: Post Development	3.4-97

Section 3.5 Air Quality and Odor (No Figures)

Section 3.6 Energy and Natural Resources

Figure 3.6-1	Existing Transmission Lines and Substations in Subarea	3.6-2
Figure 3.6-2	Planned Electrical system Improvements.....	3.6-4
Figure 3.6-3	Mining Sites (Gravel Pits).....	3.6-11

Section 3.7 Environmental Health - Noise and Toxic/Hazardous Materials

Figure 3.7-1	Paine Field Existing Noise Exposure Map, 1992.....	3.7-5
Figure 3.7-2	"Worst Case" Short Term Spike for Boeing's Engine Run-ups	3.7-7
Figure 3.7-3	Paine Field Projected Noise Contours, 1999.....	3.7-12
Figure 3.7-4	Paine Field Projected Noise Contours, 2014.....	3.7-13

Section 3.8 Public Services and Utilities

Figure 3.8-1	Fire District Boundaries and Fire Station Locations.....	3.8-2
Figure 3.8-2	Parks and Schools	3.8-9
Figure 3.8-3	Water District Boundaries and Existing Distribution System.....	3.8-20
Figure 3.8-4	Proposed Water Distribution System Improvements	3.8-26
Figure 3.8-5	Example of Looped Main Needed to Meet Fire Flows.....	3.8-27
Figure 3.8-6	Sewer District Boundaries and Distribution System.....	3.8-34
Figure 3.8-7	Sewer Flow Zones and Mains	3.8-35
Figure 3.8-8	Proposed Sewer Line Improvements	3.8-40

LIST OF TABLES

Section 1: Summary

Table 1.3-1	Threshold, Impact of Development, and Potential Mitigation Measures	1 - 8
-------------	---	-------

Section 2: Draft Subarea Plan

Table 2.3-1	Existing Plans Alternative Employment Allocations	2 - 12
Table 2.3-2	Slower Growth Alternative Employment Allocations	2 - 14
Table 2.3-3	Faster Growth Alternative Employment Allocations	2 - 15
Table 2.3-4	2012 Employment Allocations for Desired Employment Distribution	2 - 16
Table 2.3-5	Bomarc Business Park Approvals	2 - 25
Table 2.5-1	Draft SW Everett/Paine Field Impact/Mitigation Checklist	2 - 34
Table 2.5-2	Draft Code Compliance Checklist	2 - 36

Section 3: Existing Conditions, Impacts, Potential Mitigation Measures

Section 3.1 Land Use

Table 3.1-1	Uses Permitted in Subarea and Analyzed in DEIS	3.1-12
Table 3.1-2	Accessory Activities and Structures Analyzed in DEIS	3.1-18
Table 3.1-3	Current Zoning Code Development Standards	3.1-21
Table 3.1-4	Required Perimeter (Lot Line) Landscaping	3.1-25
Table 3.1-5	Landscaping Type Requirements	3.1-26
Table 3.1-6	Snohomish County General Landscaping Requirements	3.1-29
Table 3.1-7	City of Everett Sign Standards	3.1-37

Section 3.2 Transportation

Table 3.2-1	Screenline Vehicle Volumes and Capacities, Without Mitigation	3.2-18
Table 3.2-2	Off-Street Parking Requirements, Existing Plans Alternative	3.2-27
Table 3.2-3	Off-Street Parking Requirements, Slow Growth Alternative	3.2-27
Table 3.2-4	Off-Street Parking Requirements, Fast Growth Alternative	3.2-27
Table 3.2-5	Energy Consumed in 1990 and 2015 for Vehicular Travel	3.2-31
Table 3.2-6	Ten Mitigation Tactics by Eight Impact Categories	3.2-36
Table 3.2-7	Summary of Planning and Mitigation Assumptions	3.2-37
Table 3.2-8	Proposed Mitigation Projects and Programs by Impact Category	3.2-38
Table 3.2-9	Proposed Mitigation Projects and Programs - Cost	3.2-39
Table 3.2-10	Screenline Vehicle Volumes Volume/Capacity Ratios - 2015 & 2030	3.2-45

Section 3.3 Earth

Table 3.3-1	Summary of Soil Characteristics of Soil Types in Subarea	3.3-6
-------------	--	-------

Section 3.4 Surfacewater, Plants and Animals

Table 3.4-1	Compliance with Water Quality Standards for Surface Waters of the State of Washington	3.4-7
Table 3.4-2	Salmonid Distribution in the Study Area	3.4-10
Table 3.4-3	Draft Requirements in City's Minimum Technical Requirements Ordin. ...	3.4-82

Table 3.4-4	Existing Stormwater Conditions and Conditions at Buildout	3.4-91
Table 3.4-5	Summary of Stormwater Flow Information for Streams	3.4-93
Table 3.4-6	Summary of Potential Wetland Mitigations by Basin	3.4-112
Section 3.5	Air Quality and Odor	
Table 3.5-1	Ambient Air Quality Standards	3.5-2
Table 3.5-2	1994 Emissions by Source	3.5-10
Table 3.5-3	Stationary Source Share of 1988 Air Pollutant Emission Estimate	3.5-10
Section 3.6	Energy and Natural Resources	
Table 3.6-1	Electrical Loading by Areas Defined by the PUD	3.6-4
Section 3.7	Environmental Health	
Table 3.7-1	Typical Sound Levels (dBA)	3.7-2
Table 3.7-2	Land Uses within Existing Paine Field Noise Contours, by acre	3.7-4
Table 3.7-3	Maximum Permissible Noise Levels	3.7-8
Table 3.7-4	Typical Maximum Noise Levels for Construction	3.7-11
Table 3.7-5	Land Uses Within Projected Paine Field Noise Contours, by acre	3.7-14
Section 3.8	Public Services and Utilities	
Table 3.8-1	Example of Fire Department Requirements	3.8-5
Table 3.8-2	Water System Capital Improvements Needed for Portion of Subarea Served by City of Everett	3.8-25
Table 3.8-3	Water System Improvements Needed for Portion of Subarea Served by Mukilteo Water District	3.8-30
Table 3.8-4	Sewer System Capital Improvements Needed for Portion of Subarea Served by City of Everett	3.8-42
Table 3.8-5	Solid Waste Disposal by Alternative	3.8-48

LIST OF PHOTOGRAPHS

Section 3.1	Land Use	
Photo 3.1-1	Cintas Corporation	3.1-1
Photo 3.1-2	Industrial Building	3.1-2
Photo 3.1-3	Building on 75th St. SW Leased by Boeing	3.1-2
Photo 3.1-4	Boeing Office Building	3.1-2
Photo 3.1-5	Norpro	3.1-3
Photo 3.1-6	Boeing Building on Bomarc Property	3.1-3
Photo 3.1-7	Washington Natural Gas	3.1-3
Photo 3.1-8	Intermec	3.1-4
Photo 3.1-9	Fluke Corporation Headquarters	3.1-4
Photo 3.1-10	Associated Sand and Gravel	3.1-4
Photo 3.1-11	Example of Detention Pond	3.1-20
Photo 3.1-12	Example of Outdoor Storage in Subarea (At Norsol)	3.1-32
Photo 3.1-13	Buffer Between Intermec and Residential Area to North	3.1-39
Section 3.3	Earth	
Photo 3.3-1	Merrill Creek Associates Mining Slope	3.3-4
Photo 3.3-2	Associated Sand and Gravel Mining Slope	3.3-4
Section 3.4	Surfacewater, Plants and Animals	
Photo 3.4-1	Narbeck Swamp	3.4-22
Photo 3.4-2	Seaway Center Wetland Mitigation - Lot 5B	3.4-22
Section 3.6	Energy and Natural Resources	
Photo 3.6-1	Example of Substation Screening (photo not in Subarea)	3.6-7
Section 3.8	Public Services and Utilities	
Photo 3.8-1	Example of Communications Tower	3.8-18