
Table of Contents

Note: The Final Supplemental EIS consists of this document (contents listed below) and the two-volume Draft Supplemental EIS as issued in April 2005. All volumes are contained on the CD attached to the back cover of this volume.

Foreword	i
Fact Sheet.....	v
Acronyms and Abbreviations	xxv
Table of Contents.....	xxvii
Table of Contents for Draft Supplemental EIS.....	xxviii
Summary Responses to Comments.....	1
Scope of Supplemental EIS	3
Executive’s Decision	8
Comment Period	13
Seismic Design Standards.....	14
50-Year Design Life	21
New Snohomish County Ordinances	24
Understanding Seismic Risk	25
Worst-Case Scenarios	27
Trenching	30
Zone of Deformation	36
Other Earthquakes	38
Chemicals	43
Emergency Response.....	46
Individual Responses to Comments	49
Government Agencies.....	51
Organizations	93
Individuals	110
Changes in the Supplemental EIS Text Made in Response to Comments	317
Foreword	319
Chapter 1. Introduction.....	323
Chapter 2. Seismic Background and Context.....	327
Chapter 3. Design of the Brightwater Treatment Plant	329
Chapter 4. Worst-Case Earthquake Scenarios Assumed in the Impacts Analysis	335
Chapter 5. Environmental Impacts If a Major Earthquake Were to Damage Brightwater Facilities and Mitigation of Impacts	347
Appendix G. Analysis and Discussion of Findings from USGS Ground Magnetic Study in North Mitigation Area at Route 9 Site	363
Glossary	
Distribution List	
Errata	

Note: the May 4, 2005, Public Hearing transcript is available on the CD, located on the back inside cover.

**TABLE OF CONTENTS FOR THE DRAFT SUPPLEMENTAL EIS
(bound separately)**

Foreword

Fact Sheet

Acronyms and Abbreviations

Table of Contents

List of Tables

List of Figures

Chapter 1 Introduction

- 1.1 Why Is King County Issuing a Supplement to the Brightwater Environmental Impact Statement?
- 1.2 What New Information Is Provided in this Brightwater Supplemental EIS?
- 1.3 What Information on the Brightwater Project Was Provided in Addenda to the EIS?
- 1.4 How Has the Project Description Been Modified Since the EIS Was Issued?
- 1.5 How Do Brightwater Siting and Design Reflect Evolving Seismic Information?
- 1.6 What Uncertainties Remain About Buildings on the Route 9 Site?
- 1.7 What Is the Likelihood That an Earthquake Would Seriously Damage the Brightwater Treatment Plant and Adversely Affect the Environment?
- 1.8 What Environmental Impacts Are Analyzed in this Supplemental EIS?
- 1.9 References

Chapter 2 Seismic Background and Context

- 2.1 Are Earthquake Faults Present on the Route 9 Site?
- 2.2 How Do Researchers Locate Earthquake Faults?
- 2.3 How Are Earthquakes Measured?
- 2.4 What Are the Geologic Characteristics of the Puget Sound Region?
- 2.5 What Are the Seismic Characteristics of the Puget Sound Region?
- 2.6 What Is the Southern Whidbey Island Fault?
- 2.7 What Studies Have Been Done to Determine the Location of the Southern Whidbey Island Fault On and Near the Route 9 Site?
- 2.8 What Can Be Inferred About Seismic Features On or Near the Route 9 Site?
- 2.9 What Uncertainties Remain About Seismic Features On or Near the Route 9 Site?
- 2.10 References

Chapter 3 Design of the Brightwater Treatment Plant

- 3.1 How Would Brightwater Fit Into the Regional Wastewater System?
- 3.2 How Is the Brightwater Treatment Plant Being Designed to Lessen Impacts of an Earthquake?
- 3.3 How Are Brightwater Conveyance Facilities Being Designed to Lessen Impacts of an Earthquake?
- 3.4 Do Regulations Govern the Siting of Facilities Near Active Faults?
- 3.5 What Are the Components of the Brightwater Wastewater Treatment System?
- 3.6 Where Would Facilities Be Located On the Route 9 Site in Relation to Seismic Features?
- 3.7 References

Chapter 4 Worst-Case Earthquake Scenarios Assumed in the Impacts Analysis

- 4.1 What Is Assumed About a “Worst-Case” Earthquake?
- 4.2 What Is Assumed About Conditions at the Brightwater Treatment Plant Just Prior to a Major Earthquake?
- 4.3 What Is Assumed About Availability of Regional Services Following a Major Earthquake on the Southern Whidbey Island Fault?
- 4.4 What Has Happened to Other Water and Wastewater Treatment Plants During Large Earthquakes?
- 4.5 What Would Happen if the Ground Were to Rupture on Lineament 4 Resulting in Very Strong Ground Shaking on the Site (Scenario A)?
- 4.6 What Would Happen if the Ground Were to Rupture on Lineament X Resulting in a Break in the Combined Tunnel and Very Strong Ground Shaking on the Site (Scenario B)?
- 4.7 What Would Happen if the Ground Were to Rupture Between Lineaments 4 and X Resulting in Damage to Treatment Facilities and Very Strong Ground Shaking on the Site (Scenario C)?
- 4.8 How Would King County Respond to an Earthquake at the Brightwater Treatment Plant?
- 4.9 References

Chapter 5 Environmental Impacts If a Major Earthquake Were to Damage Brightwater Facilities and Mitigation of Impacts

- 5.1 What Does SEPA Require?
- 5.2 How Is the Discussion of Impacts and Mitigation Organized?
- 5.3 What Impacts Would Occur to Surface Waters and Biological Resources from an Earthquake on the Route 9 Site? What Can Be Done to Minimize or Mitigate Impacts?
- 5.4 What Impacts to Groundwater Could Occur from an Earthquake on the Route 9 Site? What Can Be Done to Minimize or Mitigate Impacts?
- 5.5 What Odor and Air Emission Impacts Could Occur from an Earthquake on the Route 9 Site? What Can Be Done to Minimize or Mitigate Impacts?
- 5.6 What Impacts to Environmental Health Could Occur from an Earthquake on the Route 9 Site? What Can Be Done to Minimize or Mitigate Impacts?
- 5.7 What Impacts to Public Services and Utilities Could Occur from an Earthquake on the Route 9 Site? What Can Be Done to Minimize or Mitigate Impacts?
- 5.8 References

Scenario Tables

Glossary

Distribution List

Appendices

- A Surface-Fault-Rupture Hazard Evaluation
- B Revised Probabilistic Seismic Hazard Analyses
- C Building Code Regulations and Seismic Studies Used in the Structural Design of the Brightwater Facilities
- D Emergency Overflow Surface Water Impacts Analysis
- E Analysis of Flooding and Water Quality Effects in Little Bear Creek Following a Major Earthquake
- F Brightwater SEPA Supplement Groundwater Evaluation